THE HAY AND CATTLE MEASURER.

APS, 1.84.207 ABS. 1.84.185 60 230 me llere 9 -007 - 0009





J. W. Thoms Feddinch

THE

HAY AND CATTLE MEASURER.







THE

HAY & CATTLE MEASURER:

A SERIES OF TABLES,

SHOWING BY MEASUREMENT THE WEIGHT OF

HAY & CORN IN ROUND OR OBLONG STACKS.

AND THE LIVE AND DEAD WEIGHT OF

CATTLE, SHEEP, AND SWINE;

ALSO,

TABLES FOR REDUCING VARIOUS LOCAL WEIGHTS AND MEASURES TO THE IMPERIAL STANDARD, AND SHOWING THEIR EQUIVALENT PRICE



LONDON: BLACKIE & SON, PATERNOSTER BUILDINGS, E.C.; GLASGOW AND EDINBURGH, 1876.



PREFACE.

In the following set of Tables the Publishers have endeavoured to present practical men with the means of readily ascertaining the Solid or Cubical Contents of Hay and Corn Stacks, and also the Weight of Live Stock. Great pains have been taken to insure their accuracy, and explain their application to practical purposes. With the latter view, remarks have been prefixed to each Table. which, it is believed, will greatly facilitate their consultation, and explain their mode of application with sufficient brevity and precision. Tables are also added, showing the Equivalents of the Imperial Stone of 14 lbs. in various Local Weights. These Tables are extracted from the Agriculturist's Calculator, and now published in a separate form, to meet the wants of a numerous class who do not require the other portions of that work.

GLASGOW, February, 1860.



CONTENTS.

TABLE I.

Shows the solid or cubical content of stacks of a round or cylindrical form, in solid yards and feet, from 6 to 21 feet in height, and from 15 to 82 feet in girth or circumference.

TABLE II.

This table shows the solid or cubical content of stacks of a square or an oblong form, in solid yards and feet, from $\frac{1}{2}$ foot to 60 feet in length, $\frac{1}{2}$ foot to 21 feet in breadth, and the same in height.

TABLE III.

19

46

Shows the number of stones of hay, &c., in stacks containing from 1 to 500 cubic yards, at rates from 4 to 20 stones per cubic yard,

TABLE IV.

Shows the content of tanks, &c., of a cylindrical form, in cubic yards and feet, from 4 to 15¹/₂ feet in diameter, and from 4 to 14 feet in depth.

TABLE V.

Shows the number of imperial gallons that tanks of a circular, square, or oblong form will contain; having their content or capacity given in cubic yards and feet, from 1 foot to 500 yards.

TABLE VI.

TABLE VII.

TABLE VIII.

Shows the live and dead weight of swine, in imperial stones of 14 lbs., in Smithfield stones of 8 lbs., in cwts., and in scores, sinking the offals, . . . 108

CONTENTS.

TABLE IX.

Shows the live and dead weight of sheep, in imperial stones of 14 lbs., in Smithfield stones of 8 lbs., in cwts., and in scores, sinking the offals, . . . 110

TABLE X.

Shows the relative or equivalent weight of imperial stones of 14 Has, from 1 to 100 stones, in Scotch troyes or Dutch atones of 17², imperial Has, in Edinburgh trone stones of 22 imperial Has, in Calagow trone stones of 22³, imperial Has, in Aynshire trone stones of 24 imperial Has, in sources or 20 imperial Has, and in evts. or 112 imperial Has.

TABLE XI.

Shows the relative or equivalent prices from 1, to 12x, per imperial atone of 14 bis, in Societ (roys or Duth stones of 17² imperial 1bs, in Ediaburgh trace stones of 22 inperial 1bs, in Ediaburgh trace of 224 imperial 1bs, in Aynhire trone stones of 524 imperial 1bs, in London or Smithfield stones of 5 imperial 1bs, in scores of 20 imperial 1bs, and in owts, or 112 imperial 1bs.

TABLE XII.

TABLE XIII.

TABLE XIV.

| Shows the | relative | weight . | of the | imp | erial, | Dutcl | h, and | |
|------------|----------|----------|--------|-------|--------|-------|--------|-----|
| Edinburg | h, Glasg | ow, and | Ayrs | shire | trone | lbs., | from | |
| 1 to 24 lb | s. imper | ial, | | | | | | 119 |

APPENDIX-Weights and Measures,

. 120

6

PAGE

THE HAY & CATTLE MEASURER.

TABLE I.

Shows the solid or cubical content of stacks of a round or culindrical form, in solid tards and feer, from 6 to 21 pt in height, and from 15 to 82 pt. in signt or circumpergregs.

Is the first three pages of the table are found the girths from 15 to 37 ft, in the next three pages the girths from $37\frac{1}{4}$ to $59\frac{1}{3}$ ft,; and, in the last three pages, the girths from 60 to 82 ft, these are placed in the left-hand columns of the pages; the heights from 6 to 21 ft are placed along the top of the other columns; the solid content is found opposite the given girth, in the column under the given height.

The girths being given, rising by a half foot, from 15 to 82 ft., are, in ordinary cases, sufficiently minute for any measurement; and, if required, any height may be had, rising by a half foot from 3 ft. to 32 ft., either by taking half the content of one of the beights in the Table, or by adding together the contents of two of the beights.

If any required girth exceeds the bounds of the Table, the content of it may be found by taking haff of the girtes girth in the Table, and multiplying its content by the square of 2 ± 4 , and the product is the content of the girth required. Thus, to know the content of a stack of 150 fb, girth and 21 fb, high: in the Table opposite half its girth, 75 ft, under height 21 fb, stands its content, 348 yds. 4 fb, which multiplied by 4 gires 1392 yds. 16 ft, the content of the stack.

The contents are set down to the nearest fraction of a foot: fractions of a half-foot and under are neglected, and when above a half-foot, they are reckoned 1.

To find the solid content of a circular stack, such as the figure adjoining.—When the stack tapers regularly from the eaves to the ground, find the mean girth by adding together the girth taken at the bottom of the stack can dthe girth taken at the eaves, a, b, both in feet, and half the sum is the mean girth. When the stack does not taper regularly, girthe must be



taken in several places and added together, their sum divided by the number of girths taken, the quotient is the mean girth. TABLE I .- CUBIC CONTENT OF ROUND STACKS.

Then, with the mean girth found in one of these ways, and the height of the stack from the ground to the eares, find the content of this portion of the stack in the Table. Next find the content of the top portion, by taking the girth at the eares by the perpendicular height from the eaves to the orower of the stack, of the hind part of which is to be added to the content content of the stack in solid yards and feet, as in the following example:—

Required the solid content of a circular stack, the girth at the bottom being 56 feet, the girth at the eaves 63 feet, the perpendicular height from the ground to the eaves 12 feet, and the perpendicular height from the eaves to the crown of the stack 9 feet.

| Add together the two girths, 56 and 63 = 119, hall | f Yds. | Ft. |
|--|--------|-----|
| of which is 59 g feet, the mean girth; opposite this | | |
| girth in the Table, under 12 feet height to the | | |
| eaves, stands | 125 | 6 |
| And opposite 63 feet, girth at the eaves, and under | | |
| 9 feet, height from the eaves to the crown of | | |
| the stack, is 105 yards 8 feet, the third of | | ~ 7 |
| which is | 85 | 25 |
| Showing the solid content to be. | 160 | 88 |

To calculate the above by the pen, square the mean girth, multiply the product by the height from the ground to the serves, and this products by the decimal 0.029474, which gives the content of the body portion. Then squares the girth at the errors of the stand, and divide the product by 3: the quotient, multiplied by the decimal 0.029474, gives the content of the top portion. Add the top and bottom portions together, point off as many places of figures from the right of the sum as there are decimal places in the multiplier; the figures to the left of the point show the cold content of the top.

| $59.5^2 = 3540$ | $.25 \times 12$ | $=$ 42483 \times | 002943 | 4 = 1 | 25.214 | 3942 |
|------------------------------------|-----------------|-----------------------------|---------|-------|--------|---------|
| 63² = 3969 | × 9 | $=\frac{35721 \times 3}{3}$ | 002947 | = | 35.094 | 6918 |
| | | | | ī | 60.309 | 0860 |
| And | | .3090860 | X | 27 = | 8.345 | 3220 |
| Showing the so and a fraction a | lid conte | nt of the sta | ck to b | c 160 | yards, | 8 feet, |

ы

Note.-The multiplier .0029474 is found by dividing .07958, the area of a circle whose circumference is 1, by 27, the cubic feet in a yard.

When great accuracy is not required, the content is sometimes found by taking the height of the stack from the ground to the eaves, and adding to this the third of the height from the eaves to the crown—the sum of these by the mean girth gives the content.

The content thus found is less than the truth, but the loss may not be great, seeing that the stack is not so dense at the top as it is at the bottom.

"The weight of hay per ouble yard, in stacks, varies very considerably, from quality, size of the stack, age, Ac. In England, stacks of new hay may weigh 8 or 10 stones, of 14 lbs, per ouble yard, and when they are 10 or 12 monthe old, the cubic yard may weigh 14, 16, 18, and sometimes an much as 20 stones. In Scoland, hay is frequently calculated by the Thromestone, varying, in different counties, from 22 to 28 lbs. Imperial. New hay, in small stack, is supposed to weigh about 5 stones, of 22 stacks, that have stood 10 or 12 months, may weigh 9, 10, or 11 stones per outlow ard, according to size and quality.

According to Baildon, the quantity of corn in a stack may be estimated at the average quantity of a bushel to a solid yard: but if the crop has been mown, a yard will not average more than 3 pecks. Stacks of straw may be estimated at the rate of 18 or 20 yards to a ton.

In order to find the weight of stacks, of all the varieties alluded to above, it was considered most advasable to give, first, Tables showing the orbic content of stacks in solid yards and feet, as has been done in this Table, and in Table II., for measuring stacks of an oblong form, and then to give a separate Table, showing the number of stones in any number of cubic yards, ranging from 4 to 20 stones per cubic yard, as is done in Table II.

If we suppose the foregoing example to be an old hay stack, and may weigh 16 stones Imperial per cubic yard, on turning to Table III. we find that 160 yards will be 2560 stones, at that rate. If the hay is supposed to weigh 9 stones Scotch Trone weight, 160 yards will weigh 1440 Trone stones.

9

TABLE I .- CUBIC CONTENT OF ROUND STACKS.

| ii i | НЕІОНТ. | | | | | | | | | | | |
|-----------------|---------|---------------------|------|------|---------|-----|------|-------|------|------|------|-----|
| GIRT | 6 F | cet. 61 Feet. 7 Fee | | eet. | 8 Feet. | | 9 F | 'eet. | 10 H | eet. | | |
| Feet. | Yds. | Ft. | Yds. | Ft. | Yds. | Ft. | Yds. | Ft. | Yds. | Ft. | Yds. | Ft. |
| 15 | 3 | 26 | 4 | 8 | 4 | 17 | 5 | 8 | 6 | 26 | 6 | 17 |
| 15 | 4 | 7 | 4 | 16 | 4 | 26 | 5. | 18 | 6 | 10 | 7 | 2 |
| 16 | 4 | 14 | 4 | 24 | 5 | 8 | 6 | 1 | 6 | 21 | 7 | 15 |
| 164 | 4 | 22 | 5 | 6 | D | 17 | 6 | 11 | 7 | 6 | 8 | 1 |
| 17 | b | 3 | 0 | 14 | b | 26 | 6 | 22 | 1 | 18 | 8 | 14 |
| 분환 | 5 | 11 | 0 | 23 | 0 | 9 | 1 | 5 | 8 | 10 | 9 | 1 |
| 18 | D | 20 | 6 | 17 | 0 | 18 | 1 | 17 | 8 | 10 | 10 | 10 |
| 102 | 0 | 10 | 0 | 10 | 4 | 10 | 8 | 2 | 8 | 10 | 10 | 177 |
| 101 | 0 | 20 | 0 | 20 | 6 | 13 | 0 | 19 | 10 | 10 | 10 | 14 |
| 199 | 0 | 20 | 4 | 10 | 6 | 20 | 0 | 10 | 10 | 10 | 11 | 21 |
| 201 | 7 | 12 | 6 | 10 | 8 | 18 | 9 | 25 | 11 | 4 | 12 | 10 |
| 21 | 7 | 22 | 6 | 12 | 9 | 3 | 10 | 11 | 11 | 19 | 13 | 0 |
| 214 | 8 | 5 | s | 23 | 9 | 15 | 10 | 24 | 12 | 7 | 13 | 17 |
| 22 | 8 | 15 | 0 | 77 | 10 | 10 | 11 | 11 | 12 | 23 | 14 | 7 |
| 221 | 8 | 26 | 0 | 19 | 10 | 12 | 11 | 25 | 13 | 12 | 14 | 25 |
| 23 | ğ | 10 | 10 | 4 | 10 | 25 | 12 | 13 | 14 | 1 | 15 | 16 |
| 231 | o l | 21 | 10 | 16 | ii | 11 | 13 | 1 | 14 | 18 | 16 | 7 |
| 24 | 10 | 5 | 11 | 1 | 11 | 24 | 13 | 16 | 15 | 8 | 16 | 26 |
| 241 | 10 | 17 | 11 | 13 | 12 | 10 | 14 | 4 | 15 | 25 | 1.7 | 19 |
| 25 | 11 | 1 | ii | 26 | 12 | 24 | 14 | 20 | 16 | 16 | 18 | 11 |
| 251 | 11 | 13 | 12 | 12 | 13 | 11 | 15 | 9 | 17 | "7 | 19 | + |
| 26 | 11 | 26 | 12 | 26 | 13 | 26 | 15 | 25 | 17 | 25 | 19 | 25 |
| 261 | 12 | 11 | 13 | 12 | 14 | 13 | 16 | 15 | 18 | 17 | 20 | 19 |
| 27 | 12 | 24 | 13 | 26 | 15 | 1 | 17 | Б | 19 | 9 | 21 | 13 |
| 271 | 13 | 10 | 14 | 13 | 15 | 16 | 17 | 22 | 20 | 2 | 22 | 8 |
| 28 | 13 | 23 | 15 | 1 | 16 | 5 | 18 | 13 | 20 | 22 | 23 | 3 |
| $28\frac{1}{2}$ | 14 | 10 | 15 | 15 | 16 | 20 | 19 | 4 | 21 | 15 | 23 | 25 |
| 29 | 14 | 24 | 16 | 3 | 17 | 9 | 19 | 22 | 22 | 8 | 24 | 21 |
| 291 | 15 | 11 | 16 | 18 | 17 | 26 | 20 | 14 | 23 | 2 | 25 | 18 |
| 80 | 15 | 25 | 17 | 7 | 18 | 15 | 21 | 6 | 23 | 24 | 26 | 14 |
| 801 | 16 | 12 | 17 | 22 | 19 | õ | 21 | 25 | 24 | 18 | 27 | 11 |
| 31 | 17 | 0 | 18 | 11 | 19 | 22 | 22 | 18 | 25 | 13 | 28 | 9 |
| 811 | 17 | 15 | 19 | 0 | 20 | 13 | 23 | 11 | 26 | 9 | 29 | 7 |
| 33 | 18 | 3 | 19 | 17 | 21 | 3 | 24 | 4 | 27 | 4 | 30 | 0 |
| 321 | 18 | 18 | 20 | 6 | 21 | 21 | 24 | 24 | 28 | 1 | 31 | 1 |
| 33 | 19 | 7 | 20 | 23 | 22 | 13 | 25 | 18 | 28 | 24 | 32 | 0 |
| 331 | 19 | 23 | 21 | 14 | 23 | 4 | 26 | 12 | 29 | 21 | 33 | 0 |
| 34 | 20 | 12 | 22 | 4 | 23 | 23 | 27 | 7 | 30 | 18 | 24 | 2 |
| 341 | 21 | 1 | 22 | 22 | 24 | 10 | 28 | 2 | 00 | 10 | 00 | 8 |
| 35 | 21 | 18 | 23 | 13 | 25 | 7 | 28 | 24 | 32 | 10 | 97 | 4 |
| 351 | 22 | 8 | 24 | 4 | 26 | 0 | 29 | 10 | 00 | 13 | 90 | 5 |
| 30 | 22 | 20 | 24 | 22 | 26 | 1.9 | 30 | 10 | 04 | 10 | 80 | 7 |
| 001 | 23 | 10 | 20 | 14 | 00 | 10 | 01 | 11 | 90 | 9 | 40 | 9 |
| 01 | 24 | 0 | 26 | 6 | 28 | . 4 | 02 | 0 | 00 | 0 | . 20 | 0 |

| TABLE 1.—CUBIC CONTENT OF ROUND STACES. 11 | | | | | | | | | | | | |
|--|------|------|------|-------|------|----------|------|-------|------|-------|------|-------|
| .н. | | | | 1 | | HEI | СНТ. | | _ | | | |
| GIRT | 11 1 | eet. | 113 | Feet. | 12 1 | 12 Feet. | | Feet. | 14 1 | Feet. | 15 | Feet. |
| Feet. | Yds. | Ft. | Yds. | Ft. | Yds. | Ft. | Yds, | Ft. | Yds. | Ft. | Yds. | Ft. |
| 151 | 1 | 01 | 6 | 11 | 0 | 20 | 0 | 11 | 0 | 95 | 10 | 17 |
| 16 | ŝ | 8 | 6 | 18 | 0 | 10 | 0 | 99 | 10 | 15 | 11 | |
| 161 | 8 | 22 | 0 | R | 0 | 17 | 10 | 12 | 11 | 6 | 12. | 1 |
| 17 | 9 | 10 | 9 | 21 | 10 | 6 | 11 | 2 | 11 | 25 | 12 | 21 |
| 171 | 9 | 25 | 10 | 10 | 10 | 22 | ii | 20 | 12 | 17 | 13 | 15 |
| 18 | 10 | 14 | 11 | 0 | 11 | 12 | 12 | 11 | 13 | 10 | 14 | 9 |
| 181 | 11 | 3 | 11 | 16 | 12 | 3 | 13 | 3 | 14 | 3 | 15 | 4 |
| 19 | 11 | 19 | 12 | 6 | 12 | 21 | 13 | 22 | 14 | 24 | 15 | 26 |
| 191 | 12 | 9 | 12 | 24 | 13 | 12 | 14 | 15 | 15 | 19 | 16 | 22 |
| 20 | 12 | 26 | 13 | 15 | 14 | 4 | 15 | 9 | 16 | 14 | 17 | 18 |
| 201 | 13 | 17 | 14 | 7 | 14 | 23 | 16 | 3 | 17 | 9 | 18 | 16 |
| 21 | 14 | . 8 | 14 | 26 | 15 | 16 | 16 | 24 | 18 | 5 | 19 | 13 |
| 211 | 15 | 0 | 15 | 18 | 16 | 9 | 17 | 19 | 19 | 2 | 20 | 12 |
| 22 | 15 | 19 | 16 | 11 | 17 | 3 | 18 | 15 | 19 | 26 | 21 | 11 |
| $22\frac{1}{2}$ | 16 | 11 | 17 | 4 | 17 | 24 | 19 | 11 | 20 | 24 | 22 | 10 |
| 23 | 17 | 4 | 17 | 25 | 17 | 19 | 20 | 7 | 21 | 22 | 23 | 10 |
| 231 | 17 | 24 | 18 | 19 | 19 | 14 | 21 | 4 | 22 | 21 | 24 | 11 |
| 24 | 18 | 18 | 19 | 14 | 20 | 10 | 22 | 2 | 23 | 21 | 25. | 13 |
| 241 | 19 | 12 | 20 | 9 | 21 | 6 | 23 | 0 | 24 | 21 | 26 | 15 |
| 20 | 30 | 1 | 21 | 5 | 22 | 3 | 23 | 26 | 25 | 21 | 27 | 17 |
| 201 | 21 | 2 | 22 | 1 | 23 | 0 | 24 | 25 | 26 | 22 | 28 | 20 |
| 20 | 21 | 20 | 22 | 20 | 23 | 20 | 20 | 24 | 27 | 24 | 29 | 24 |
| 202 | 22 | 21 | 23 | 22 | 24 | 23 | 26 | 20 | 28 | 20 | 00 | - 1 |
| 971 | 20 | 14 | 24 | 19 | 20 | 21 | 27 | 20 | 21 | 2 | 02 | 19 |
| 28 | 25 | 11 | 20 | 15 | 97 | 20 | 20 | 1 | 01 | 0 | 24 | 10 |
| 281 | 26 | 0 | 20 | 14 | 20 | 20 | 91 | 2 | 22 | 14 | 25 | 05 |
| 202 | 27 | 7 | 28 | 14 | 20 | 20 | 20 | B | 24 | 10 | 37 | 5 |
| 291 | .28 | ß | 20 | 13 | 30 | 21 | 39 | 9 | 35 | 25 | 38 | 13 |
| 302 | 29 | 5 | 30 | 14 | 31 | 22 | 34 | 13 | 37 | 4 | 39 | 21 |
| 301 | 30 | 4 | 31 | 14 | 32 | 24 | 35 | 17 | 38 | 10 | 41 | 3 |
| 31 | 31 | 4 | 32 | 15 | 34 | 0 | 36 | 22 | 39 | 18 | 42 | 13 |
| 311 | 32 | 5 | 33 | 17 | 35 | 3 | 38 | 1 | 40 | 25 | 43 | 23 |
| 32 | 33 | 5 | 34 | 19 | 36 | 6 | 39 | 6 | 42 | 7 | 45 | 7 |
| 321 | 34 | 7 | 35 | 22 | 37 | 10 | 40 | 13 | 43 | 16 | 46 | 19 |
| 33 | 35 | 8 | 36 | 25 | 38 | 14 | 41 | 20 | 44 | 25 | 48 | 4 |
| 331 | 36 | 10 | 38 | 1 | 39 | 19 | 43 | 0 | 46 | 8 | 49 | 17 |
| 34 | 37 | 13 | 39 | 5 | 40 | 24 | 44 | 8 | 47 | 19 | 51 | 3 |
| 341 | 38 | 16 | 40 | 9 | 42 | 3 | 45 | 16 | 49 | 3 | 52 | 17 |
| 85 | 39 | 19 | 41 | 14 | 43 | 9 | 46 | 25 | 50 | 15 | 54 | 4 |
| 351 | 40 | 23 | 42 | 19 | 44 | 15 | 48 | 8 | 52 | 0 | 55 | 19 |
| 36 | 42 | 0 | 43 | 25 | 45 | 28 | 49 | 18 | 53 | 13 | 57 | 8 |
| 301 | 43 | 5 | 45 | 4 | 47 | 3 | 51 | 1 | 54 | 26 | 58 | 24 |
| 37 | 44 | 10 | 46 | 11 | 48 | 11 | 52 | 12 | 56 | 13 | 60 | 14 |

TABLE I .- CUBIC CONTENT OF ROUND STACKS.

| н. | Неюнт. | | | | | | | | | | | |
|-----------------|--------|-------|------|---------|------|--------|------|------|------|------|------|-------|
| GIRT | 16 1 | Peet. | 17 3 | Feet. | 18 1 | Feet. | 19 1 | eet. | 20 I | eet. | 21 7 | 'eet. |
| Feet. | Yds. | Ft. | Yds. | Ft. | Yds. | Ft. 95 | Yds. | Ft. | Yds. | Ft. | Yds. | Ft. |
| 151 | 11 | 0 | 12 | 1 | 12 | 20 | 13 | 12 | 14 | 4 | 14 | 24 |
| 16 | 12 | 2 | 12 | 22 | 13 | 16 | 14 | 9 | 15 | 2 | 15 | 23 |
| 161 | 12 | 23 | 13 | 17 | 14 | 12 | 15 | 7 | 16 | 1 | 16 | 23 |
| 17 | 13 | 17 | 14 | 13 | 15 | 9 | 16 | 5 | 17 | î | 17 | 24 |
| 171 | 14 | 12 | 15 | 9 | 16 | 7 | 17 | 4 | 18 | 1 | 18 | 26 |
| 18 | 15 | 8 | 16 | 6 | 17 | 5 | 18 | 4 | 19 | 3 | 20 | 1 |
| 181 | 16 | 4 | 17 | 4 | 18 | 4 | 19 | 4 | 20 | 5 | 21 | 5 |
| 19 | 17 | 1 | 18 | 2 | 19 | 4 | 20 | 6 | 21 | 8 | 22 | 9 |
| 191 | 17 | 25 | 19. | 1 | 20 | 5 | 21 | 8 | 22 | 11 | 23 | 14 |
| 20 | 18 | 23 | 20 | 1 | 21 | 6 | 22 | 11 | 23 | 16 | 24 | 20 |
| 201 | 19 | 22 | 21 | 2 | 22 | 8 | 23 | 14 | 24 | 21 | 26 | 0 |
| 21 | 20 | 22 | 22 | 3 | 23 | 11 | 24 | 19 | 26 | 0 | 27 | 8 |
| 211 | 21 | 22 | 23 | 4 | 24 | 14 | 25 | 24 | 27 | 7 | 28 | 17 |
| 22 | 22 | 22 | 24 | 7 | 25 | 18 | 27 | 3 | 28 | 14 | 29 | 26 |
| $22\frac{1}{2}$ | 23 | 24 | 25 | 10 | 26 | 23 | 28 | 9 | 29 | 23 | 31 | 9 |
| 23 | 24 | 26 | 26 | 14 | 28 | 2 | 29 | 17 | 31 | 0 | 32 | 20 |
| 231 | 26 | 1 | 27 | 18 | 29 | 8 | 30 | 25 | 32 | 10 | 34 | 10 |
| 24 | 27 | 4 | 28 | 23 | 30 | 10 | 32 | 17 | 33 | 26 | 30 | 18 |
| 245 | 28 | 8 | 30 | 2 | 31 | 23 | 33 | 17 | 30 | 10 | 01 | 10 |
| 25 | 29 | 13 | 31 | 10 | 33 | 10 | 00 | 11 | 20 | 20 | 40 | 10 |
| 201 | 00 | 10 | 02 | 01 | 01 | 10 | 97 | 0.9 | 20 | 99 | 41 | 23 |
| 20 | 00 | 0 | 00 | 24 K | 00 | 20 | 20 | 0 | 41 | 11 | 43 | 13 |
| 203 | 00 | 10 | 20 | 14 | 20 | 10 | 40 | 22 | 42 | 26 | 45 | 3 |
| 971 | 35 | 18 | 37 | 24 | 40 | 3 | 42 | 9 | 44 | 16 | 46 | 22 |
| 28 | 86 | 26 | 39 | 8 | 41 | 16 | 43 | 24 | 46 | 6 | 48 | 14 |
| 281 | 38 | 8 | 40 | 19 | 43 | 2 | 45 | 13 | 47 | 24 | 50 | 7 |
| 29 | 39 | 18 | 42 | 4 | 44 | 15 | 47 | 3 | 49 | 16 | 52 | 1 |
| 291 | 41 | 1 | 43 | 16 | 46 | 5 | 48 | 20 | 51 | 8 | 53 | 23 |
| 30 | 42 | 12 | 45 | 3 | 47 | 20 | 50 | 11 | 53 | 1 | 55 | 19 |
| 301 | 43 | 23 | 46 | 16 | 49 | 10 | 52 | 3 | 54 | 23 | 57 | 16 |
| 31 | 45 | 9 | 48 | 4 | 51 | 0 | 53 | 22 | 56 | 18 | 59 | 13 |
| 311 | 46 | 21 | 49 | 19 | 52 | 17 | 55 | 15 | 58 | 13 | 61 | 11 |
| 32 | 48 | 8 | 51 | 8 | 54 | 9 | 57 | 9 | 60 | 10 | 63 | 10 |
| 321 | 49 | 22 | 52 | 25 | 56 | 1 | 59 | 4 | 62 | 7 | 65 | 10 |
| 33 | 51 | 10 | 54 | 15 | 57 | 21 | 61 | 0 | 64 | 5 | 67 | 11 |
| 331 | 52 | 25 | 56 | 6 | 59 | 15 | 62 | 23 | 66 | 4 | 69 | 12 |
| 34 | 54 | 14 | 57 | 25 | 61 | 9 | 64 | 20 | 68 | 4 | 71 | 10 |
| 341 | 56 | 4 | 59 | 17 | 63 | 4 | . 66 | 18 | 70 | 4 | 73 | 18 |
| 35 | 57 | 21 | 61 | 10 | 65 | 0 | 68 | 16 | 72 | 6 | 10 | 22 |
| 351 | 59 | 12 | 63 | 4 | 66 | 23 | 70 | 16 | 74 | 11 | 18 | 8 |
| 36 | 61 | 3 | 04 | 25 | 08 | 20 | 12 | 10 | 70 | 14 | 20 | 12 |
| 004 | 62 | 22 | 00 | 20 | 70 | 18 | 70 | 10 | 60 | 10 | 84 | 20 |
| 37 | 64 | 15 | 68 | 10 | 72 | 17 | 10 | 10 | 00 | 10 | 01 | 20 |

| TABLE I.—CUBIC CONTENT OF ROUND STACKS. 13 | | | | | | | | | | | | |
|--|------|------|------|------|------|------|---------|-----|------|------|-------|-----|
| H | | | | | | HE | GHT. | | | | | |
| GIRI | 6 F | eet. | 61 1 | eet. | 7 F | eet. | 8 Feet. | | 9 F | cet. | 10 Fe | et. |
| Feet. | Yds. | Ft. | Yds. | Ft. | Yds. | Ft. | Yds. | Ft. | Yds. | Ft. | Yds. | Ft. |
| 371 | 24 | 23 | 26 | 25 | 29 | 0 | 33 | 4 | 37 | 8 | 41 | 12 |
| 38 | 25 | 14 | 27 | 18 | 29 | 21 | 34 | 1 | 38 | 8 | 42 | 15 |
| 381 | 26 | 6 | 28 | 11 | 30 | 16 | 34 | 26 | 39 | 9 | 43 | 19 |
| 89 | 26 | 24 | 29 | 4 | 31 | 10 | 35 | 23 | 40 | 10 | 22 | 22 |
| 09g | 27 | 10 | 29 | 24 | 32 | 0 | 30 | 21 | 49 | 10 | 40 | 0 |
| 401 | 20 | 0 | 91 | 10 | 00 | 99 | 01 | 10 | 49 | 14 | 10 | * |
| 41 | 20 | 20 | 20 | 0 | 24 | 10 | 20 | 17 | 44 | 18 | 40 | 15 |
| 411 | 30 | 12 | 33 | 0 | 35 | 14 | 40 | 16 | 45 | 19 | 50 | 21 |
| 42 | 31 | 5 | 33 | 21 | 36 | 11 | 41 | 16 | 46 | 21 | 52 | 0 |
| 121 | 31 | 25 | 34 | 16 | 37 | 7 | 42 | 16 | 47 | 25 | 53 | 6 |
| 43 | 32 | 19 | 35 | 11 | 38 | 4 | 43 | 16 | 49 | 1 | 54 | 13 |
| 431 | 33 | 13 | 36 | 7 | 39 | 1 | 44 | 17 | 50 | 5 | 55 | 21 |
| 44 | 34 | 6 | 37 | 2 | 39 | 25 | 45 | 18 | 51 | 10 | 57 | 2 |
| 441 | 35 | 1 | 37 | 25 | 40 | 23 | 46 | 19 | 52 | 14 | 58 | 10 |
| 45 | 35 | 22 | 38 | 21 | -41 | 21 | 47 | 20 | 53 | 19 | 59 | 18 |
| 453 | 36 | 17 | 39 | 18 | 42 | 19 | 48 | 22 | 54 | 25 | 61 | 1 |
| 46 | 37 | 11 | 40 | 15 | 43 | 18 | 49 | 24 | 56 | 4 | 62 | 10 |
| 461 | 38 | 6 | 41 | 11 | 44 | 17 | 51 | 0 | 57 | 10 | 63 | 20 |
| 47 | 39 | 2 | 42 | 9 | 45 | 16 | 52 | 2 | 58 | 16 | 65 | 3 |
| 475 | 39 | 24 | 43 | 6 | 46 | 15 | 53 | 5 | 59 | 23 | 66 | 14 |
| 48 | 40 | 20 | 44 | 4 | 47 | 14 | 54 | 9 | 61 | 3 | 67 | 25 |
| 403 | 41 | 10 | 40 | 2 | 18 | 14 | 50 | 13 | 62 | 11 | 69 | 9. |
| 401 | 12 | 12 | 40 | 0 | 49 | 10 | 00 | 17 | 03 | 19 | 70 | 21 |
| 50 | 40 | 8 | 40 | 20 | 50 | 10 | 01 | 21 | 60 | 0 | 72 | 10 |
| 501 | 45 | 9 | 18 | 00 | 50 | 17 | 80 | 20 | 87 | 10 | 10 | 10 |
| 51 | 46 | 0 | 49 | 20 | 53 | 18 | 61 | 4 | 69 | 10 | 76 | 18 |
| 511 | 46 | 24 | 50 | 22 | 54 | 19 | 62 | 15 | 70 | 10 | 78 | 5 |
| 52 | 47 | 22 | 51 | 22 | 55 | 21 | 63 | 20 | 71 | 20 | 79 | 19 |
| 521 | 48 | 20 | 52 | 22 | 56 | 23 | 65 | 0 | 73 | 3 | 81 | 6 |
| 53 | 49 | 18 | 53 | 22 | 57 | 26 | 66 | 6 | 74 | 14 | 82 | 21 |
| 531 | 50 | 17 | 54 | 23 | 59 | 1 | 67 | 13 | 75 | 25 | 84 | 10 |
| 54 | 51 | 15 | 55 | 23 | 60 | 4 | 68 | 20 | 77 | 9 | 85 | 26 |
| 541 | 52 | 14 | 56 | 24 | 61 | 8 | 70 | 1 | 78 | 21 | 87 | 15 |
| 55 | 53 | 13 | 57 | 26 | 62 | 11 | 71 | 9 | 80 | 7 | 89 | 4 |
| 551 | 54 | 13 | 59 | ~ 0, | 63 | 15 | 72 | 17 | 81 | 19 | 90 | 21 |
| 06 | 55 | 12 | 60 | 2 | 64 | 19 | 73 | 26 | 83 | 5 | 92 | 12 |
| 501 | 06 | 12 | 61 | 4 | 65 | 23 | 75 | 7 | 84 | 18 | 94 | 2 |
| 571 | 57 | 12 | 02 | 7 | 67 | 1 | 76 | 16 | 86 | 5 | 95 | 21 |
| 59 | 50 | 10 | 64 | 10 | 08 | 0 | 77 | 26 | 87 | 19 | .97 | 12 |
| 581 | 80 | 14 | 65 | 12 | 09 | 10 | 10 | 10 | 09 | 6 | 100 | 4 |
| 59 | 61 | 15 | 88 | 10 | 71 | 10 | 00 | 19 | 00 | 21 | 100 | 23 |
| 591 | 62 | 16 | 67 | 22 | 73 | 1 | 83 | 19 | 02 | 25 | 104 | 01 |
| 2 1 | | | ~. | ~ ~ | 10 | R | 00 | 10 | 00 | 20 | 102 | 0 |

| 14 TABLE ICUBIC CONTENT OF ROUND STACKS. | | | | | | | | | | |
|--|----------|-----------|----------|----------|----------|----------|--|--|--|--|
| .H. | | | HEI | OHT. | | | | | | |
| GIR | 11 Feet. | 111 Feet. | 12 Feet. | 13 Feet. | 14 Feet. | 15 Feet. | | | | |
| Feet. | Yds. Ft. | Yds. Ft. | Yds, Ft. | Yds. Ft. | Yds. Ft. | Yds. Ft. | | | | |
| 371 | 45 16 | 47 18 | 49 20 | 53 24 | 58 1 | 62 5 | | | | |
| 38 | 46 22 | 48 26 | 51 2 | 55 9 | 59 16 | 63 23 | | | | |
| 381 | 48 2 | 50 7 | 52 11 | 56 21 | 61 4 | 65 14 | | | | |
| 39 | 49 8 | 51 15 | 53 21 | 58 8 | 62 21 | 67 7 | | | | |
| 391 | 50 16 | 52 24 | 55 5 | 59 21 | 64 10 | 68 26 | | | | |
| 40 | 51 24 | 54 6 | 56 16 | 61 8 | 66 1 | 70 20 | | | | |
| 401 | 53 5 | 55 16 | 58 0 | 62 23 | 67 18 | 72 14 | | | | |
| 41 | 54 14 | 56 26 | 59 12 | 64 11 | 69 10 | 74 9 | | | | |
| 411 | 55 23 | 58 10 | 60 25 | 66 0 | 71 2 | 76 4 | | | | |
| 42 | 57 5 | 59 21 | 62 11 | 67 16 | 72 21 | 78 0 | | | | |
| 421 | 58 15 | 61 6 | 63 24 | 69 6 | 74 14 | 79 23 | | | | |
| 43 | 59 26 | 62 18 | 65 11 | 70 23 | 76 8 | 81 20 | | | | |
| 431 | 61 9 | 64 4 | 66 25 | 72 14 | 78 2 | 83 18 | | | | |
| 44 | 62 21 | 65 17 | 68 13 | 74 0 | 79 24 | 80 16 | | | | |
| 445 | 64 5 | 67 3 | 70 1 | 75 24 | 81 19 | 87 10 | | | | |
| 45 | 65 18 | 68 17 | 71 17 | 77 16 | 83 15 | 89 14 | | | | |
| 403 | 67 3 | 70 0 | 73 6 | 79 9 | 85 12 | 91 14 | | | | |
| 46 | 68 16 | 71 20 | 74 23 | 81 2 | 87 8 | 90 10 | | | | |
| 405 | 70 3 | 13 8 | 70.13 | 82 23 | 89 6 | 07 10 | | | | |
| 47 | 71 17 | 74 24 | 78 4 | 84 17 | 91 4 | 00 90 | | | | |
| 412 | 70 4 | 70 10 | 10 22 | 80 12 | 05 0 | 101 99 | | | | |
| 401 | 74 19 | 70 90 | 01 10 | 00 0 | 07 9 | 101 20 | | | | |
| 403 | 70 1 | 91 10 | 84 95 | 02 0 | 00 9 | 108 4 | | | | |
| 401 | 70 19 | 00 1 | 94 19 | 03 94 | 101 2 | 108 9 | | | | |
| 100 | 01 1 | 84 20 | 89 11 | 05 21 | 103 4 | 110 14 | | | | |
| 501 | 00 10 | QR 19 | 00 5 | 07 10 | 105 6 | 112 20 | | | | |
| 51 | 84 9 | 89 4 | 02 0 | 00 18 | 107 9 | 115 0 | | | | |
| 511 | 86 0 | 89 24 | 93 22 | 101 17 | 109 19 | 117 7 | | | | |
| 52 | 87 18 | 91 18 | 95 17 | 103 16 | 111 16 | 119 15 | | | | |
| 521 | 89 10 | 93 11 | 97 13 | 105 16 | 113 20 | 121 23 | | | | |
| 53 | 91 2 | 95 6 | 99 9 | 107 17 | 115 25 | 124 5 | | | | |
| 531 | 92 22 | 97 0 | 101 6 | 109 18 | 118 3 | 126 15 | | | | |
| 54 | 94 15 | 98 23 | 103 4 | 111 20 | 120 9 | 128 25 | | | | |
| 541 | 96 8 | 100 18 | 105 1 | 113 22 | 122 15 | 131 9 | | | | |
| 55 | 98 2 | 102 14 | 107 0 | 115 24 | 124 22 | 133 20 | | | | |
| 551 | 99 23 | 104 11 | 108 26 | 118 1 | 127 3 | 136 5 | | | | |
| 56 | 101 18 | 106 8 | 110 25 | 120 4 | 129 11 | 138 17 | | | | |
| 561 | 103 13 | 108 5 | 112 24 | 122 9 | 131 20 | 141 4 | | | | |
| 57 | 105 9 | 110 3 | 114 25 | 124 13 | 134 2 | 143 17 | | | | |
| 571 | 107 5 | 112 2 | 116 25 | 126 18 | 136 12 | 146 5 | | | | |
| 58 | 109 2 | 114 1 | 118 26 | 128 24 | 138 22 | 148 20 | | | | |
| 581 | 110 26 | 116 0 | 121 1 | 131 3 | 141 6 | 151 8 | | | | |
| 59 | 112 23 | 118 0 | 123 3 | 133 10 | 143 17 | 153 24 | | | | |
| 591 | 114 21 | 120 0 | 125 6 | 1 135 18 | 146 2 | 156 14 | | | | |
| | | | | | | | | | | |

| TABLE | I CUR | ENT OF | ROUND | STACKS. |
|-------|-------|--------|-------|---------|
| | | | | |

| H | HEIGHT. | | | | | | | | | | |
|-------|----------|----------|------------|----------|----------|----------|--|--|--|--|--|
| GIRT | 16 Feet. | 17 Feet. | 18 Feet. | 19 Feet. | 20 Feet. | 21 Feet. | | | | | |
| Feet. | Yds. Ft. | Yds. Ft. | Yds. Ft. | Yds. Ft. | Yds. Ft. | Yds. Ft. | | | | | |
| 371 | 66 9 | 70 12 | 74 16 | 78 20 | 82 24 | 87 1 | | | | | |
| 38 | 68 3 | 72 10 | 76 16 | 80 23 | 85 3 | 89 10 | | | | | |
| 381 | 69 24 | 74 7 | 78 17 | 83 0 | 87 10 | 91 20 | | | | | |
| 39 | 71 20 | 76 6 | 80 19 | 85 5 | 89 18 | 94 4 | | | | | |
| 391 | 73 16 | 78 5 | 82 21 | 87 10 | 91 26 | 96 15 | | | | | |
| 40 | 75 12 | 80 5 | 84 24 | 89 16 | 94 9 | 99 1 | | | | | |
| 401 | 77 9 | 82 5 | 87 1 | 91 23 | 96 19 | 101 14 | | | | | |
| 41 | 79 7 | 84 6 | 89 5 | 94 4 | 99 2 | 104 1 | | | | | |
| 413 | 81 6 | 86 8 | 91 10 | 96 12 | 101 14 | 106 16 | | | | | |
| 42 | 83 5 | 88 10 | 93 16 | 98 21 | 104 0 | 109 5 | | | | | |
| 421 | 85 5 | 90 14 | 95 22 | 101 4 | 106 13 | 111 22 | | | | | |
| 43 | 87 5 | 92 17 | 98 3 | 103 15 | 109 0 | 114 12 | | | | | |
| 431 | 89 6 | 94 22 | 100 11 | 105 26 | 111 15 | 117 3 | | | | | |
| 44 | 91 8 | 97 0 | 102 19 | 108 11 | 114 3 | 119 22 | | | | | |
| 441 | 93 10 | 99 6 | 105 2 | 110 24 | 116 20 | 122 15 | | | | | |
| 45 | 95 13 | 101 13 | 107 12 | 113 11 | 119 10 | 125 9 | | | | | |
| 451 | 97 17 | 103 20 | 109 23 | 115 25 | 122 1 | 128 4 | | | | | |
| 46 | 99 21 | 106 1 | 112 7 | 118 13 | 124 20 | 130 26 | | | | | |
| 461 | 101 26 | 108 9 | 114 19 | 121 2 | 127 12 | 133 23 | | | | | |
| 47 | 104 5 | 110 18 | 117 5 | 123 19 | 130 6 | 136 20 | | | | | |
| 473 | 106 11 | 113 1 | 119 19 | 126 9 | 133 0 | 139 18 | | | | | |
| 48 | 108 18 | 115 12 | 122 6 | 129 1 | 135 22 | 142 16 | | | | | |
| 481 | 110 25 | 117 23 | 124 21 | 131 20 | 138 18 | 145 16 | | | | | |
| 49 | 113 6 | 120 8 | $127 \ 10$ | 134 12 | 141 14 | 148 17 | | | | | |
| 493 | 115 15 | 122 21 | 130 0 | 137 6 | 144 12 | 151 18 | | | | | |
| 50 | 117 24 | 125 7 | 132 17 | 140 0 | 147 10 | 154 20 | | | | | |
| 501 | 120 7 | 127 21 | 135 8 | 142 22 | 150 9 | 157 23 | | | | | |
| 51 | 122 18 | 130 9 | 138 0 | 145 18 | 153 9 | 161 0 | | | | | |
| 511 | 125 2 | 132 24 | 140 19 | 148 14 | 156 9 | 164 4 | | | | | |
| 52 | 127 14 | 135 13 | 143 12 | 151 12 | 159 11 | 167 10 | | | | | |
| 521 | 129 26 | 138 3 | 146 6 | 154 10 | 162 13 | 170 16 | | | | | |
| 03 | 132 13 | 140 20 | 149 1 | 157 8 | 100 16 | 170 23 | | | | | |
| 031 | 134 26 | 143 11 | 151 23 | 100 8 | 108 20 | 100 10 | | | | | |
| 04 | 107 14 | 140 3 | 104 19 | 100 8 | 171 24 | 100 13 | | | | | |
| 042 | 140 2 | 148 22 | 157 16 | 166 9 | 175 2 | 183 23 | | | | | |
| 00 | 142 18 | 151 15 | 100 13 | 109 11 | 178 9 | 187 6 | | | | | |
| 502 | 140 7 | 154 9 | 163 11 | 172 13 | 181 16 | 190 18 | | | | | |
| 00 | 147 24 | 150 90 | 100 10 | 170 17 | 100 5 | 107 10 | | | | | |
| 003 | 150 15 | 100 26 | 179 10 | 101 00 | 100 0 | 101 10 | | | | | |
| 671 | 155 0 | 102 21 | 175 11 | 101 20 | 101 14 | 201 0 | | | | | |
| 013 | 100 20 | 100 18 | 170 11 | 100 4 | 102 24 | 202 17 | | | | | |
| 501 | 100 17 | 100 10 | 101 15 | 101 10 | 201 20 | 200 0 | | | | | |
| 50 | 101 10 | 171 13 | 101 10 | 101 18 | 201 20 | 915 19 | | | | | |
| 501 | 188 98 | 172 10 | 101 18 | 109 20 | 200 0 | 910 12 | | | | | |
| 003 | 1 100 20 | . 111 10 | 101 22 | 100 1 | 1 208 10 | 210 0 | | | | | |

TABLE L-CUBIC CONTENT OF ROUND STACKS.

| $ \begin{array}{ c c c c c c c c c c c c c c c c c c c$ | H | | | HE | IGHT. | | |
|---|-----------------|----------|----------|----------|----------|----------|----------|
| $ \begin{array}{cccccccccccccccccccccccccccccccccccc$ | GTRT | 6 Feet. | 61 Feet. | 7 Feet. | 8 Feet. | 9 Feet. | 10 Feet. |
| | Feet. | Yds. Ft. |
| $ \begin{array}{cccccccccccccccccccccccccccccccccccc$ | 601 | 64 20 | 70 3 | 75 14 | 86 8 | 07 9 | 100 0 |
| $ \begin{array}{cccccccccccccccccccccccccccccccccccc$ | 61 | 65 22 | 71 8 | 76 21 | 87 20 | 98 19 | 109 18 |
| $ \begin{array}{cccccccccccccccccccccccccccccccccccc$ | 611 | 66 24 | 72 12 | 78 1 | 89 5 | 100 9 | 111 13 |
| | 62 | 67 26 | 73 17 | 79 8 | 90 17 | 101 26 | 113 8 |
| | $62\frac{1}{2}$ | 69 2 | 74 23 | 80 16 | 92 3 | 103 7 | 115 4 |
| | 63 | 70 5 | 76 1 | 81 24 | 93 16 | 105 8 | 117 0 |
| $ \begin{array}{cccccccccccccccccccccccccccccccccccc$ | 631 | 71 8 | 77 7 | 83 0 | 95 2 | 108 10 | 118 23 |
| $ \begin{array}{cccccccccccccccccccccccccccccccccccc$ | 641 | 73 15 | 70 10 | 85 93 | 08 8 | 110 10 | 120 20 |
| $ \begin{array}{cccccccccccccccccccccccccccccccccccc$ | 65 | 74 19 | 80 25 | 87 5 | 99 17 | 112 2 | 124 14 |
| | 651 | 75 24 | 82 5 | 88 14 | 101 .4 | 113 22 | 126 12 |
| $ \begin{array}{cccccccccccccccccccccccccccccccccccc$ | 66 | 77 1 | 83 12 | 89 24 | 102 19 | 115 15 | 128 11 |
| $ \begin{array}{cccccccccccccccccccccccccccccccccccc$ | $66\frac{1}{2}$ | 78 6 | 84 19 | 91 6 | 104 7 | 117 8 | 130 9 |
| $ \begin{array}{cccccccccccccccccccccccccccccccccccc$ | 67 | 79 10 | 86 0 | 92 17 | 105 23 | 119 2 | 132 8 |
| $ \begin{array}{cccccccccccccccccccccccccccccccccccc$ | 671 | 80 16 | 87 8 | 94 0 | 107 12 | 120 23 | 134 8 |
| $ \begin{array}{cccccccccccccccccccccccccccccccccccc$ | 681 | 82 26 | 80 94 | 06 92 | 110 17 | 124 10 | 138 8 |
| $ \begin{array}{cccccccccccccccccccccccccccccccccccc$ | 69 | 84 5 | 91 6 | 98 6 | 112 7 | 126 8 | 140 9 |
| $ \begin{array}{cccccccccccccccccccccccccccccccccccc$ | 691 | 85 11 | 92 15 | 99 18 | 113 24 | 128 4 | 142 10 |
| $ \begin{array}{cccccccccccccccccccccccccccccccccccc$ | 70 | 86 18 | 93 24 | 101 3 | 115 15 | 129 26 | 144 11 |
| $ \begin{array}{cccccccccccccccccccccccccccccccccccc$ | 701 | 87 24 | 95 6 | 102 15 | 117 5 | 131 23 | 146 13 |
| $ \begin{array}{cccccccccccccccccccccccccccccccccccc$ | 71 | 89 4 | 96 16 | 104 0 | 118 23 | 133 19 | 148 16 |
| $ \begin{array}{cccccccccccccccccccccccccccccccccccc$ | 711 | 90 11 | 97 25 | 100 13 | 120 15 | 135 16 | 150 18 |
| $ \begin{array}{cccccccccccccccccccccccccccccccccccc$ | 791 | 02 6 | 100 19 | 108 12 | 123 25 | 130 12 | 154 95 |
| $ \begin{array}{cccccccccccccccccccccccccccccccccccc$ | 73 | 94 6 | 102 3 | 109 26 | 125 18 | 141 10 | 157 2 |
| $ \begin{array}{cccccccccccccccccccccccccccccccccccc$ | 731 | 95 14 | 103 13 | 111 12 | 127 10 | 143 8 | 159 6 |
| $ \begin{array}{cccccccccccccccccccccccccccccccccccc$ | 74 | 96 23 | 104 25 | 112 26 | 129 3 | 145 7 | 161 11 |
| $ \begin{array}{cccccccccccccccccccccccccccccccccccc$ | 741 | 98 4 | 106 9 | 114 14 | 130 24 | 147 6 | 163 16 |
| $ \begin{array}{cccccccccccccccccccccccccccccccccccc$ | 75 | 99 13 | 107 21 | 116 1 | 132 17 | 149 6 | 165 21 |
| $ \begin{array}{cccccccccccccccccccccccccccccccccccc$ | 701 | 100 22 | 110 19 | 117 16 | 104 11 | 159 0 | 108 0 |
| $\begin{array}{cccccccccccccccccccccccccccccccccccc$ | 761 | 103 13 | 112 3 | 120 20 | 138 0 | 155 6 | 172 13 |
| $ \begin{array}{cccccccccccccccccccccccccccccccccccc$ | 77 | 104 23 | 113 16 | 122 9 | 139 22 | 157 7 | 174 20 |
| $ \begin{array}{cccccccccccccccccccccccccccccccccccc$ | 773 | 106 6 | 115 2 | 128 25 | 141 17 | 159 9 | 177 1 |
| $ \begin{array}{cccccccccccccccccccccccccccccccccccc$ | 78 | 107 16 | 116 15 | 125 14 | 143 12 | 161 10 | 179 9 |
| $\begin{array}{cccccccccccccccccccccccccccccccccccc$ | 781 | 108 26 | 118 2 | 127 4 | 145 8 | 163 13 | 181 17 |
| $ \begin{array}{cccccccccccccccccccccccccccccccccccc$ | 79 | 110 10 | 119 15 | 128 21 | 147 4 | 165 15 | 183 26 |
| $ \begin{array}{cccccccccccccccccccccccccccccccccccc$ | 201 | 111 21 | 121 2 | 199 1 | 149 1 | 107 18 | 100 17 |
| $\begin{array}{cccccccccccccccccccccccccccccccccccc$ | 801 | 114 18 | 124 4 | 133 19 | 152 22 | 171 24 | 191 0 |
| 811 117 13 127 7 137 1 156 17 176 5 195 21 | 81 | 116 1 | 125 19 | 135 10 | 154 19 | 174 1 | 193 10 |
| | 811 | 117 13 | 127 7 | 137 1 | 156 17 | 176 5 | 195 21 |
| 62 118 25 128 22 138 20 158 15 178 10 198 5 | 62 | 118 25 | 128 22 | 138 20 | 158 15 | 178 10 | 198 5 |

| TABLE ICUBIC CONTENT OF ROUND STACKS. 17 | | | | | | | | | |
|--|----------|-----------|----------|----------|----------|----------|--|--|--|
| H | | - | HE | GHT. | | | | | |
| GIRT | 11 Fect. | 111 Feet. | 12 Feet. | 13 Feet. | 14 Feet. | 15 Feet. | | | |
| Feet. | Yds. Ft. | Yds. Ft. | Yds. Ft. | Yds. Ft. | Yds. Ft. | Yds. Ft. | | | |
| 60 | 116 19 | 122 1 | 127 9 | 137 25 | 148 15 | 159 4 | | | |
| 601 | 118 18 | 124 2 | 129 12 | 140 7 | 151 1 | 161 22 | | | |
| 01 | 120 17 | 120 0 | 101 10 | 142 10 | 100 10 | 104 14 | | | |
| 015 | 122 17 | 128 0 | 100 21 | 144 20 | 150 2 | 107 0 | | | |
| 02 | 122 14 | 199 11 | 139 4 | 140 19 | 100 14 | 179 10 | | | |
| 022 | 120 17 | 102 11 | 140 10 | 159 9 | 163 21 | 175 13 | | | |
| 691 | 130 20 | 136 18 | 142 17 | 154 14 | 166 10 | 178 7 | | | |
| 64 | 132 22 | 138 23 | 144 24 | 156 25 | 169 0 | 181 2 | | | |
| 641 | 184 24 | 141 0 | 147 4 | 159 11 | 171 18 | 183 25 | | | |
| 65 | 136 26 | 143 6 | 149 12 | 161 24 | 174 9 | 186 21 | | | |
| 651 | 139 3 | 145 11 | 151 20 | 164 10 | 177 1 | 189 18 | | | |
| 66 | 141 6 | 147 17 | 154 2 | 166 24 | 179 20 | 192 16 | | | |
| 661 | 143 10 | 149 24 | 156 11 | 169 12 | 182 13 | 195 14 | | | |
| 67 | 145 15 | 152 4 | 158 21 | 172 0 | 185 6 | 198 13 | | | |
| 671 | 147 19 | 154 12 | 161 4 | 174 16 | 189 0 | 201 12 | | | |
| 68 | 149 25 | 156 20 | 163 15 | 177 5 | 190 22 | 204 12 | | | |
| 681 | 152 4 | 159 1 | 165 26 | 179 21 | 193 17 | 207 12 | | | |
| 69 | 154 10 | 161 10 | 168 11 | 182 11 | 196 12 | 210 13 | | | |
| 697 | 156 16 | 163 19 | 170 23 | 185 2 | 199 8 | 213 15 | | | |
| 70 | 108 23 | 106 2 | 173 8 | 187 20 | 202 0 | 210 17 | | | |
| 70 ± | 101 4 | 108 13 | 170 21 | 102 4 | 205 2 | 219 20 | | | |
| 711 | 165 20 | 173 8 | 180 22 | 105 94 | 210 26 | 226 0 | | | |
| 72 | 168 2 | 175 19 | 183 10 | 198 17 | 213 25 | 220 5 | | | |
| 721 | 170 11 | 178 4 | 185 25 | 201 11 | 216 24 | 232 10 | | | |
| 73 | 172 21 | 180 17 | 188 13 | 204 5 | 219 24 | 235 16 | | | |
| 731 | 175 4 | 183 3 | 191 2 | 207 0 | 222 25 | 238 23 | | | |
| 74 | 177 15 | 185 16 | 193 18 | 209 22 | 225 26 | 242 3 | | | |
| 741 | 179 26 | 188 3 | 196 8 | 212 18 | 229 1 | 245 10 | | | |
| 75 | 182 10 | 190 18 | 198 26 | 215 14 | 232 3 | 248 19 | | | |
| .751 | 184 22 | 193 6 | 201 17 | 218 11 | 235 6 | 252 0 | | | |
| 76 | 187 7 | 195 21 | 204 8 | 221 9 | 238 9 | 255 10 | | | |
| 761 | 189 20 | 198 10 | 207 0 | 224 6 | 241 13 | 258 20 | | | |
| 11 | 192 6 | 200 26 | 209 19 | 227 D | 244 18 | 202 0 | | | |
| 78 | 107 7 | 205 10 | 212 12 | 200 4 | 251 1 | 200 10 | | | |
| 781 | 100 21 | 200 0 | 210 0 | 200 0 | 254 7 | 272 12 | | | |
| 79 | 202 9 | 211 15 | 220 20 | 239 4 | 257 14 | 275 25 | | | |
| 791 | 204 25 | 214 6 | 223 15 | 242 5 | 260 22 | 279 11 | | | |
| 80 | 207 13 | 216 25 | 226 10 | 245 6 | 264 2 | 282 26 | | | |
| 801 | 210 3 | 219 18 | 229 5 | 248 8 | 267 11 | 286 13 | | | |
| 81 | 212 19 | 222 10 | 232 1 | 251 11 | 270 20 | 290 2 | | | |
| 811 | 215 9 | 225 4 | 234 25 | 254 14 | 274 2 | 293 18 | | | |
| 82 | 218 0 | 227 25 | 237 22 | 257 17 | 277 12 | 297 7 | | | |

TABLE I .- CUBIC CONTENT OF ROUND STACKS.

| P. 1 | | | 116 | IGHT. | | |
|-----------------|---------------|-----------------|----------|----------|-----------------|-----------------|
| Gra | 16 Feet. | 17 Feet. | 18 Feet. | 19 Feet. | 20 Feet. | 21 Feet. |
| Feet. | Yds. Ft. | Yds. Ft. | Yds. Ft. | Yds. Ft. | Yds. Ft. | Yds. Ft. |
| 601 | 109 21 | 180 10 | 191 0 | 201 10 | 212 0 | 222 22 22 22 22 |
| 61 | 175 13 | 186 12 | 197 11 | 208 10 | 219 9 | 230 8 |
| 611 | 178 10 | 189 14 | 200 18 | 211 22 | 222 26 | 234 3 |
| 62 | 181 7 | 192 16 | 203 25 | 215 7 | 226 16 | 237 25 |
| $62\frac{1}{2}$ | 184 6 | 195 20 | 207 6 | 218 20 | 230 7 | 241 21 |
| 63 | 187 5 | 198 24 | 210 15 | 222 7 | 233 26 | 245 18 |
| 003 | 190 4 | 202 1 | 213 25 | 225 22 | 237 19 | 249 10 |
| 641 | 108 5 | 205 0 | 217 8 | 229 10 | 241 12 245 6 | 200 14 |
| 65 | 199 7 | 211 19 | 224 4 | 236 16 | 219 2 | 261 14 |
| 653 | 202 9 | 214 26 | 227 17 | 240 7 | 252 24 | 265 15 |
| 66 | 205 11 | 218 7 | 231 3 | 243 25 | 256 21 | 269 17 |
| 661 | 208 15 | 221 16 | 234 17 | 247 18 | 260 18 | 273 19 |
| 67 | 211 19 | 224 25 | 238 4 | 251 10 | 264 17 | 277 23 |
| 68 | 214 23 | 228 8 | 241 20 | 200 4 | 268 16 | 282 U 988 B |
| 681 | 221 8 | 201 10 | 948 95 | 263 20 | 276 16 | 290 12 |
| 69 | 224 14 | 238 15 | 252 16 | 266 17 | 280 18 | 294 18 |
| 691 | 227 21 | 242 1 | 256 7 | 270 13 | 284 20 | 298 26 |
| 70 | 231 2 | 245 14 | 259 26 | 274 11 | 288 23 | 303 8 |
| 701 | 234 11 | 249 1 | 263 19 | 278 9 | 293 0 | 307 17 |
| 71 | 237 20 | 252 16 | 267 12 | 282 8 | 297 4 | 312 0 |
| 712 | 241 2 | 206 4 | 271 6 | 286 8 | 301 10 | 310 11 |
| 721 | 244 10 947 94 | 269 20 | 270 1 | 294 10 | 309 23 | 325 9 |
| 73 | 251 8 | 267 0 | 282 19 | 298 12 | 314 4 | 329 23 |
| 731 | 254 21 | 270 18 | 286 16 | 302 13 | 318 12 | 334 9 |
| 74 | 258 7 | 274 10 | 290 14 | 306 18 | 322 22 | 338 25 |
| 741 | 261 20 | 278 3 | 294 12 | 310 22 | 327 5 | 343 14 |
| 75 | 265 7 | 281 23 | 298 11 | 315 0 | 331 16 | 348 4 |
| 703 | 268 22 | 285 17 | 208 19 | 319 6 | 340 12 | 357 14 |
| 781 | 272 10 | 200 11 203 B | 310 13 | 327 20 | 344 26 | 862 6 |
| 77 | 279 16 | 297 2 | 314 15 | 332 1 | 349 14 | 366 26 |
| 771 | 283 7 | 300 26 | 318 18 | 336 10 | 354 2 | 371 21 |
| 78 | 286 25 | 304 23 | 322 21 | 340 19 | 358 17 | 376 15 |
| 781 | 290 16 | 308 21 | 326 25 | 345 2 | 363 7 | 381 11 |
| 79 | 294 9 | 312 19 | 331 3 | 349 14 | 367 24 | 386 8 |
| 783 | 298 1 | 316 18 | 000 15 | 000 20 | 072 10 | 208 4 |
| 801 | 305 16 | 324 10 | 343 22 | 362 24 | 382 0 | 401 3 |
| 81 | 309 11 | 328 20 | 348 2 | 367 11 | 386 20 | 406 3 |
| 811 | 313 6 | 332 22 | 352 11 | 371 26 | 391 15 | 411 3 |
| 82 1 | 317 3 | 336 25 | 356 20 | 376 15 | 396 10 | 416 5 |

TABLE II.

This table shows the solid or cubical content of stacks of a square or an oblong form, in solid targs and feet, from $\frac{1}{2}$ foot to 60 feet in length, $\frac{1}{2}$ foot to 21 feet in breadth, and the same in height.

The breadths are found on the tops of the pages, the lengths in the left-hand columns, and the heights along the tops of the other columns; the content, at a given hreadth and height, is found opposite any given length, in the column under the given height.

The context of any dimension, not found in the Table, may be had by adding together the contents of two dimensions, either in length, breadth, or height; or, it may sometimes he more convenient to take the half of the content of double the required dimension. The Table may also he extended to any required length, by adding together the contents of two or more dimensions.

Norz. As stated in the introduction to Table I. (which see), the weight of hay stacks, e.g. crubing yard, varies so much, from size, ago, and quality, that it was considered most advinable to give, first, Tables showing the cultural content of stacks in solid yards and fest, as is done in this Table, and in Table I., and then to give a segmatra Table, showing the number of stones in any number of cubic yards, ranging from 4 to 20 stones per cubic yards, as is done in Table III.

To find the solid content of a stack of the form adjoining, the ends being perpendicular, hut the breadth wider at the eaves than at the bottom:— Add the hreadth at the seves, a, b, and divide the sum by 2 for the mean breadth; them with the length of the stack, the mean breadth, and the height from



the ground to the saves, find the content of this portion in the Table. Next find the content of the top portion of the stack by taking the length and breadth at the saves, and the perpendeniar height from the saves to the råge of the stack c, divide the content found in the Table by 2, and add the quotient to the content of the body portion; their sum is the solid cortent of the stacks.

EXAMPLE. Required the solid content of a hay stack, the

TABLE II .- CUBIC CONTENT OF OBLONG STACKS.

length of which is 50 feet, the breadth at the eaves 17 feet, at the bottom 13 feet, the perpendicular height from the ground to the eaves 13 feet, and from the eaves to the ridge of the stack 7 feet.

| Length 50 feet, × mean breadth 15 feet, × height | | |
|--|-----|---|
| to eaves, 13 feet (= 6+7)=166.18+194.12= | 361 | 3 |
| Length at eaves 50 feet, X breadth 17 feet (=8+9), | | |
| and height 7 feet=103.19+116.18=220.10, | | |
| divided by 2= | 110 | 5 |
| | | |

Solid content of the stack, . . 471 8

To find the content of the above by the pen.—Multiply the mean length of the body of the stack by the mean breadth, and the product by the height from the ground to the averse. Then multiply the length and breadth of the stack at the averse by the perpendicular height from the eaves to the ridge, and divide the product by 2. Add the products of the two portions together, divide their sum by 27, and the quotient is the content in solid vards, and the remainder, if any, is solid feet, thus.—

| $50 \times 15 = 750$ | X = 13 = 10 | | 9750 | |
|----------------------|----------------|-----------------|----------------|------|
| $50 \times 17 = 850$ | $\times 7 = 0$ | $5950 \div 2 =$ | 2975 | |
| And | 9750 +-21 | 975 = 12725 | $\div 27 = 47$ | 1.8. |

The solid content as in the example.

20

The content is sometimes found by adding the half of the perpendicular height from the eaves to the ridge of the stack, to the height from the ground to the eaves, by the product of the mean length and breadth, and finding the content in the Table at once. This gives the content something less than the truth, as was mentioned in Table I.

To find the number of Imperial stones in the stack, at the rate of 14 stones per cubic yard, turn to Table III.,

| Where, under 14 stones, opposite 450 yards, stand And, opposite 10 yards, stands | ls • | 6300 126 |
|---|---------|-----------------|
| The number of stones in the stack, . | | 6426 |
| If the number of Scotch stones in the stack i weighing 8 stones per yard, | is : | required, |
| Under 8 stones, opposite 450 yards stands . | - | Stones. 3600 |
| The number of stones in the stack. | | 3680 |

| TABLE IL-CI | UBIC CONTEN | T OF OBLONG | STACKS |
|-------------|-------------|-------------|--------|
|-------------|-------------|-------------|--------|

| h. | | | B | readth 6 | 3 inches | | | |
|---|---|--|---|--|---|---|---|--|
| Lengt | Height 6 inches. | Height 1 foot. | Height 1 ft. 6in. | Height 2 feet. | Height 2 ft. 6 in. | Height 3 feet. | Height 4 feet. | Height 5 feet. |
| Ht. 1234567890111234556789001112345560 | yds. ft. 0 00004 0 0 0004 0 0 1144546 0 0 000 0 0 1144546 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 | $\begin{array}{c} y_{1}^{*} s, s \\ 0 \\ 0 \\ 0 \\ 1 \\ 1 \\ \frac{1}{2} \\ $ | $\begin{array}{c} yds. \ fl. \\ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0$ | $\begin{array}{cccccccccccccccccccccccccccccccccccc$ | $\begin{array}{c} yds. ft. \\ 0 & 0 \\ 1 \\ 2 \\ 0 \\ 0 \\ 1 \\ 2 \\ 3 \\ 4 \\ 0 \\ 1 \\ 2 \\ 3 \\ 4 \\ 1 \\ 2 \\ 1 \\ 2 \\ 2 \\ 1 \\ 2 \\ 2 \\ 2 \\ 1 \\ 2 \\ 2$ | $\begin{array}{c} yds, \ ft, \\ 0 & 0\frac{4}{3} \\ 0 & 1\frac{4}{3} \\ 0 & 6\frac{4}{3} \\ 0 & 6\frac{4}{3} \\ 0 & 6\frac{4}{3} \\ 0 & 0 \\ 0 & 7\frac{3}{3} \\ 0 & 10\frac{4}{3} \\ 0 & 22\frac{4}{3} \\ 0 & 22\frac{4}{3} \\ 1 & 0 \\ 22\frac{4}{3} \\ 1 & 1\frac{4}{3} \\ 1 & 18 \\ 2 & 61 \\ 2 & 2 \\ 9 \end{array}$ | $\begin{array}{c} yds. ft.\\ 0 & 1\\ 0 & 9\\ 0 & 4\\ 0 & 6\\ 0 & 8\\ 0 & 10\\ 0 & 12\\ 0 & 14\\ 0 & 16\\ 0 & 10\\ 0 $ | $\begin{array}{c} y_{0} s, ft, \\ y_{0} & 1 \frac{1}{2} \frac{1}{2} \\ 0 & 2 \frac{1}{2} \frac{1}{2} \\ 0 & 10 \\ 0 & 10 \\ 0 & 10 \\ 0 & 10 \\ 0 & 10 \\ 0 & 10 \\ 0 & 10 \\ 0 & 10 \\ 0 & 10 \\ 0 & 20 \\ 0$ |
| - | Height 6 feet. | Height 7 feet. | Height 8 feet. | Height 9 feet. | Height 12 feet. | Height 15 feet. | Height 18 feet. | Height 21 feet, |
| 111234567890011112331451667890011112331451660 | $\begin{array}{c} yds. ft. \\ 0 & 1\frac{1}{2} \\ 0 & 3 \\ 0 & 6 \\ 0 & 9 \\ 0 & 12 \\ 0 & 15 \\ 0 & 21 \\ 0 & 21 \\ 0 & 21 \\ 0 & 21 \\ 0 & 21 \\ 1 & 0 \\ 1 & 0 \\ 1 & 0 \\ 1 & 1 \\ 1 & 21 \\ 1 & 24 \\ 1 & 21 \\ 1 & 24 \\ 1 & 21 \\ 1 & 24 \\ 1 & 23 \\ 3 & 6 \\ 3 & 9 \\ 4 & 12 \\ 5 & 6 \\ 18 \end{array}$ | $\begin{array}{c} y ds. ft. \\ 0 & 1 \frac{4}{5} \frac{4}{5} \\ 0 & 0 & 0 \\ 0 & 10 \frac{1}{5} \\ 0 & 10 \frac{1}{5} \\ 0 & 10 \frac{1}{5} \\ 0 & 24 \frac{1}{5} \\ 1 & 1 \frac{1}{5} \\ 1 & 10 \frac{1}{5} \\ 1 &$ | $\begin{array}{c} yds. ft.\\ 0 & 2 \\ 0 & 4 \\ 0 & 8 \\ 0 & 18 \\ 0 & 18 \\ 0 & 10 \\ 1 & 16 \\ 0 & 20 \\ 0 & 24 \\ 1 & 1 \\ 1 & 18 \\ 1 & 117 \\ 1 & 21 \\ 1 & 21 \\ 1 & 21 \\ 1 & 21 \\ 1 & 21 \\ 1 & 21 \\ 2 & 16 \\ 2 & 10 \\ 2 & 14 \\ 2 & 18 \\ 2 & 226 \\ 4 & 12 \\ 5 & 225 \\ 1 & 5 & 251 \\ 1 & 8 & 24 \\ \end{array}$ | $\begin{array}{c} y_{0}^{1} g_{1} g_{2} g_{1} g_{2} g_{1} g_{2} g_{1} g_{2} g_{2} g_{2} g_{1} g_{2} g_{2} g_{2} g_{1} g_{2} g$ | $\begin{array}{c} y_{rifs},ft\\ 0& 3\\ 0& 18\\ 0& 18\\ 0& 18\\ 0& 18\\ 1& 3\\ 1& 2\\ 1& 2\\ 1& 2\\ 1& 2\\ 1& 2\\ 1& 2\\ 1& 2\\ 1& 2\\ 2& 18\\ 2& 2& 18\\ 2& 2& 18\\ 2& 2& 18\\ 2& 2& 18\\ 2& 2& 18\\ 2& 2& 18\\ 3& 2& 1\\ 3& 2& 1\\ 3& 2& 1\\ 3& 2& 1\\ 4& 6& 18\\ 8& 2& 2& 1\\ 4& 6& 18\\ 8& 2& 2& 1\\ 3& 1& 3\\ 1& 3& 9\end{array}$ | $\begin{array}{c} y_{0} s, f_{1}, \\ 0 & 0 \\ 0 & 0 \\ 15 \\ 0 & 0 \\ 15 \\ 1 \\ 1 \\ 25 \\ 2 \\ 2 \\ 1 \\ 1 \\ 1 \\ 25 \\ 2 \\ 2 \\ 2 \\ 1 \\ 3 \\ 9 \\ 5 \\ 1 \\ 2 \\ 2 \\ 1 \\ 4 \\ 1 \\ 2 \\ 5 \\ 1 \\ 5 \\ 1 \\ 1 \\ 2 \\ 5 \\ 1 \\ 1 \\ 2 \\ 1 \\ 1 \\ 2 \\ 1 \\ 1 \\ 2 \\ 1 \\ 1$ | $\begin{array}{c} vds. ft.\\ 0 & 4\frac{1}{2}\\ 0 & 9\\ 1 & 0\\ 1 & 9\\ 1 & 18\\ 2 & 9\\ 2 & 18\\ 3 & 0\\ 3 & 9\\ 2 & 18\\ 3 & 0\\ 3 & 18\\ 4 & 0\\ 4 & 18\\ 5 & 9\\ 5 & 18\\ 5 & 9\\ 6 & 18\\ 6 & 0\\ 6 & 18\\ 10 & 0\\ 13 & 18\\ 20 & 0\\ \end{array}$ | $\begin{array}{c} y_{0} t_{s}, t_{s} t_{s} \\ 0 & 10^{4} \\ 1 & 15^{4} \\ 1 & 15^{5} \\ 2 & 29 \\ 3 & 3 \\ 2 & 19 \\ 4 \\ 3 & 3 \\ 2 & 19 \\ 4 \\ 3 & 3 \\ 2 \\ 4 \\ 4 \\ 18 \\ 5 \\ 19 \\ 18 \\ 15 \\ 15 \\ 19 \\ 12 \\ 28 \\ 9 \end{array}$ |

TABLE II .--- CUBIC CONTENT OF OBLONG STACKS.

| th. | | |] | Breadth | 1 foot. | | | |
|---|---|--|--|---|---|--|--|--|
| Leng | Height 6 inches. | Height 1 foot. | Height 1 ft.6 in. | Height 2 feet. | Height 2 ft. 6 in. | Height 3 feet. | Height 4 feet. | Height 5 feet. |
| Ft. \$1 2 3 4 5 6 7 8 9 10 11 12 13 14 5 16 7 8 9 10 11 12 13 14 5 16 17 18 9 20 3 40 50 60 | $\begin{array}{c} y_{\rm cls.} {\rm ft.} \\ y_{\rm cl.} {\rm cl.} {\rm cl.} \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ $ | $\begin{array}{c} yds, ft. \\ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0$ | $\begin{array}{c} y_{1}ds, \ ft, \\ y_{1}0 & 0\frac{1}{2}\\ 0 & 1\frac{1}{2}\\ 0 & 1\frac{1}{2}\\ 0 & 6 \\ 0 & 7\frac{1}{2}\\ 0 & 10\frac{1}{2}\\ 0 &$ | $\begin{array}{c} yds. \ ft. \\ 0 \ 1 \\ 0 \ 2 \\ 0 \ 4 \\ 0 \ 6 \\ 0 \ 8 \\ 0 \ 10 \\ 0 \ 12 \\ 0 \ 14 \\ 0 \ 16 \\ 0 \ 10 \\ 0 \ 12 \\ 0 \ 14 \\ 0 \ 16 \\ 0 \ 20 \\ 20 \ 24 \\ 0 \ 24 \\ 1 \ 1 \\ 1 \ 5 \\ 1 \ 7 \\ 1 \ 9 \\ 1 \ 11 \\ 1 \ 13 \\ 2 \ 6 \\ 2 \ 26 \\ 1 \ 12 \ 12$ | $\begin{array}{c} yds. \ ft. \\ 0 \ 14\\ 0 \ 24\\ 0 \ 5\\ 0 \ 76\\ 0 \ 10\\ 0 \ 12\frac{1}{2}\\ 0 \ 10\\ 0 \ 12\frac{1}{2}\\ 0 \ 20\\ 1 \ 3\\ 1 \ 3\\ 1 \ 10\frac{1}{2}\\ 1 \ 3\\ 1 \ 10\frac{1}{2}\\ 1 \ 20\frac{1}{2}\\ 1 \ 20\frac{1}{2}\ 20\frac{1}{2}\\ 1 \ 20\frac{1}{2}\ 20\frac{1}{2}\ 20\frac{1}{2}\ 20\frac{1}{2}\ 2$ | $\begin{array}{c} y_{0s}, f_{1}, \\ 0 & 1\frac{1}{9} \\ 0 & 3 \\ 0 & 0 \\ 0 & 12 \\ 0 & 15 \\ 0 & 21 \\ 0 & 21 \\ 0 & 21 \\ 0 & 21 \\ 0 & 21 \\ 1 & 3 \\ 1 & 6 \\ 1 & 9 \\ 1 & 15 \\ 1 & 121 \\ 1 & 24 \\ 1 & 2 \\ 0 & 2 \\ 3 & 6 \\ 1 & 9 \\ 1 & 15 \\ 1 & 121 \\ 1 & 24 \\ 1 & 2 \\ 1 & 5 \\ 1 & 15 \\ 1 & 121 \\ 1 & 24 \\ 1 & 2 \\ 1 & 5 \\ 1 & 15 \\ 1 & 121 \\ 1 & 24 \\ 1 & 2 \\ 1 & 5 \\ 1 & 15 \\ 1 & 15 \\ 1 & 121 \\ 1 & 24 \\ 1 & 2 \\ 1 & 5 \\ 1 & 15 \\ 1 & 15 \\ 1 & 15 \\ 1 & 121 \\ 1 & 24 \\ 1 & 2 \\ 1 & 5 \\ 1 & 15 \\ 1 & $ | yds. ft. 90 2 0 4 0 8 0 18 0 16 0 20 1 1 1 5 1 9 1 18 1 21 1 21 1 21 2 26 2 10 2 14 2 18 2 29 2 20 2 10 2 18 2 29 2 10 2 | $\begin{array}{c} y_{ds.} \ ft. \\ 0 \ \ s^{2} \\ 1 \ \ s^{2} \ \ s^{2} \\ 1 \ \ s^{2} \ \$ |
| | Height 6 feet. | Height 7 feet. | Height 8 feet. | Height 9 feet. | Height 12 feet, | Height 15 feet. | Height 18 feet. | Height 21 feet. |
| Ft. 1 2 3 4 5 6 7 8 9 10 11 12 13 4 15 16 7 18 9 20 3 40 5 60 | $\begin{array}{c} yds. \ ft. \\ 0 \ \ 5 \\ 0 \ \ 6 \\ 0 \ \ 19 \\ 0 \ \ 18 \\ 0 \ \ 18 \\ 0 \ \ 18 \\ 0 \ \ 18 \\ 1 \ \ 18 \\ 1 \ \ 18 \\ 18 \\ 13 \\ 9 \\ \end{array}$ | $\begin{array}{c} yds. ft.\\ 0 & 3\frac{3}{6}\\ 0 & 14\\ 0 & 11\\ 1 & 18\\ 1 & 15\\ 1 & 22\\ 2 & 9\\ 2 & 16\\ 3 & 3\\ 1 & 15\\ 1 & 22\\ 2 & 9\\ 2 & 28\\ 3 & 3\\ 1 & 15\\ 3 & 17\\ 4 & 44\\ 4 & 18\\ 4 & 26\\ 5 & 5\\ 7 & 21\\ 10 & 12\\ 26\\ 15 & 15\\ \end{array}$ | $\begin{array}{c} y_{0} s, ft. \\ 0 & 8 \\ 0 & 16 \\ 0 & 24 \\ 1 & 5 \\ 1 & 13 \\ 2 & 2 \\ 2 & 18 \\ 2 & 26 \\ 2 & 218 \\ 2 & 26 \\ 2 & 218 \\ 2 & 26 \\ 2 & 218 \\ 2 & 26 \\ 2 & 218 \\ 2 & 26 \\ 2 & 218 \\ 2 & 26 \\ 2 & 218 \\ 2 & 26 \\ 2 & 218 \\ 2 & 26 \\ 2 & 218 \\ 2 & 26 \\ 2 & 218 \\ 2 & 26 \\ 2 & 218 \\ 2 & 26 \\ 2 & 218 \\ 2 & 2$ | $\begin{array}{c} yds. \ ft. \\ 0 \ \ 4\frac{1}{2} \\ 0 \ \ 0 \\ 1 \ \ 0 \\ 0 \\ 1 \\ 0 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\$ | $\begin{array}{c} yds. \ ft. \\ 0 \ 12 \\ 0 \ 12 \\ 1 \ 9 \\ 1 \ 21 \\ 2 \ 16 \\ 3 \ 3 \\ 15 \\ 4 \ 12 \\ 4 \\ 24 \\ 5 \ 91 \\ 5 \ 21 \\ 6 \ 6 \\ 18 \\ 7 \ 15 \\ 8 \ 12 \\ 4 \\ 24 \\ 13 \\ 91 \\ 22 \ 6 \\ 26 \\ 18 \\ \end{array}$ | $\begin{array}{c} yds. \ ft. \\ 0 \ 7^{\frac{1}{2}} \\ 0 \ 7^{\frac{1}{2}} \\ 1 \ 8 \\ 1 \ 8 \\ 1 \ 8 \\ 1 \ 8 \\ 2 \ 8 \\ 1 \\ 8 \\ 2 \ 8 \\ 1 \\ 8 \\ 2 \\ 4 \\ 1 \\ 2 \\ 5 \\ 0 \\ 5 \\ 1 \\ 6 \\ 1 \\ 8 \\ 2 \\ 4 \\ 1 \\ 2 \\ 1 \\ 0 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1$ | $\begin{array}{c} y_{\rm ds.} {\rm ft.} \\ 0 \ 9 \\ 0 \ 18 \\ 1 \ 9 \\ 2 \ 0 \\ 18 \\ 3 \ 9 \\ 4 \ 0 \\ 4 \ 18 \\ 5 \ 9 \\ 6 \ 0 \\ 8 \ 18 \\ 9 \ 9 \\ 9 \ 9 \\ 10 \ 0 \\ 10 \ 18 \\ 11 \ 9 \\ 12 \ 0 \\ 11 \ 18 \\ 11 \ 9 \\ 20 \ 0 \\ 12 \ 18 \\ 3 \ 9 \\ 40 \ 0 \\ \end{array}$ | $\begin{array}{c} yds.\ ft.\\ 0\ 10^{1}\\ 0\ 20^{1}\\ 1\ 15\\ 9\ 9\\ 3\ 3\ 4\ 18\\ 5\ 12\\ 6\ 6\\ 7\ 0\\ 7\ 21\\ 8\ 15\\ 10\ 3\\ 10\ 24\\ 11\ 18\\ 12\ 12\\ 12\ 13\\ 10\ 3\\ 10\ 24\\ 11\ 15\\ 15\ 15\\ 23\ 9\\ 31\ 3\\ 28\ 24\\ 46\ 18\\ \end{array}$ |

| TABLE IICUBIC CONTENT OF OBLONG STACKS. 20 | | | | | | | | | |
|---|--|---|---|--|---|--|---|---|--|
| th. | Breadth 1 foot 6 inches. | | | | | | | | |
| Leng | Height 6 inches. | Height 1 foot. | Height 1 ft. 6 in. | Height 2 feet. | Height 2 ft. 6 in. | Height 8 feet. | Height 4 feet. | Height 5 feet. | |
| Ft. \$1234567890011121314566789000 | yds. ft. 0 0 0 0 0 14 0 0 14 0 0 24 0 0 54 0 0 54 0 0 54 0 0 54 0 0 12 0 12 24 0 12 14 0 12 14 0 12 14 1 18 18 | $\begin{array}{c} y ds. ft. \\ 0 & 0 \frac{1}{4} \\ 0 & 3 \\ 0 & 4 \\ 0 & 3 \\ 0 & 4 \\ 0 & 7 \\ 0 & 1 \\ 0 \\ 0 & 1 \\ 0 \\ 1 \\ 0 \\ 1 \\ 0 \\ 1 \\ 0 \\ 1 \\ 0 \\ 1 \\ 0 \\ 1 \\ 0 \\ 1 \\ 1$ | yds. ft. 144400 00444 00444 000444 000 14469 11469 | $\begin{array}{c} yds. \ ft. \\ 0 \ 1\frac{1}{2} \\ 0 \ 0 \ 10 \\ 0 \ 10 \\ 0 \ 10 \\ 0 \ 10 \\ 1 \ 0 \\ 1 \ 0 \\ 1 \ 0 \\ 1 \ 0 \\ 1 \\ 1 \ 0 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 21 \\ 1 \\ $ | $\begin{array}{c} yds, \ ft. \\ 0 & 1\frac{2}{3} \\ 0 & 0 \\ 0 & 7\frac{4}{3} \\ 0 & 115 \\ 0 & 115 \\ 0 & 125 \\ 0 & 115$ | yds. ft. 0 \$\$4 0 9 138 0 224 1 9 1 134 1 134 1 134 1 134 2 9 1 35 2 235 2 3 44 3 9 2 235 3 44 3 9 0 5 8 9 10 0 | $\begin{array}{c} yds. \ ft. \\ 0 \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \$ | $\begin{array}{c} yds. ft. \\ ft. \\ 0 & 0 \\ 0 & 0 \\ 15 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ $ | |
| | Height 6 feet. | Height 7 feet. | Height 8 feet. | Height 9 feet. | Height 12 feet. | Height 15 feet. | Height 18 feet. | Height 21 feet. | |
| Pt. 1 2 3 4 5 6 7 8 9 101 112 13 14 5 16 7 7 8 9 101 112 13 14 5 16 14 7 18 9 20 30 40 5 90 | $\begin{array}{c} yds. \ ft. \\ 0 \ 4\frac{1}{2} \\ 0 \ 9 \\ 1 \ 0 \\ 1 \\ 0 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\$ | $\begin{array}{c} yds. \ ft. \\ 0 \ \ 5b_{2} \\ 0 \ \ 10^{-5} \\ 1 \ \ 15^{-5} \ \ 15^{-5} \\ 1 \ \ 15^{-5} \ \ 1$ | $\begin{array}{c} yds. \ ft. \\ 0 \ 12 \\ 0 \ 24 \\ 1 \ 9 \\ 1 \ 21 \\ 2 \ 15 \\ 3 \ 3 \\ 1 \ 21 \\ 2 \ 15 \\ 3 \ 3 \\ 1 \ 21 \\ 2 \ 15 \\ 3 \ 3 \\ 1 \ 21 \\ 1 \ 2 \\ 1 \ 2 \\ 1 \ 3 \\ 1 \ 21 \\ 1 \ 2 \\ 1 \ 3 \\ 1 \ 3 \\ 1 \ 21 \\ 1 \ 3 \ 3 \\ 1 \ 3 \ 3 \\ 1 \ 3 \ 3 \ 1 \ 3 \ 3 \ 1 \ 3 \ 1 \ 3 \ 1 \ 3 \ 1 \ 3 \ 1 \ 3 \ 1 \ 3 \ 1 \ 3 \ 1 \ 3 \ 1 \ 3 \ 1 \ 3 \ 1 \ 1$ | $\begin{array}{c} y_{0}, f, f, \\ 6^{\frac{1}{2}} g_{1}, \\ 0 \\ 1 \\ 3 \\ 2 \\ 1 \\ 3 \\ 3 \\ 1 \\ 3 \\ 3 \\ 1 \\ 3 \\ 3 \\ 1 \\ 3 \\ 3$ | $\begin{array}{c} yds. \ ft. \\ 0 \ 9 \\ 0 \ 18 \\ 2 \ 18 \\ 3 \ 9 \\ 4 \ 0 \\ 4 \ 18 \\ 5 \ 9 \\ 4 \\ 6 \ 0 \\ 6 \ 18 \\ 9 \\ 9 \\ 10 \\ 12 \\ 12 \\ 12 \\ 12 \\ 12 \\ 13 \\ 9 \\ 20 \\ 0 \\ 12 \\ 13 \\ 9 \\ 20 \\ 0 \\ 12 \\ 13 \\ 9 \\ 20 \\ 0 \\ 12 \\ 13 \\ 9 \\ 20 \\ 0 \\ 12 \\ 13 \\ 9 \\ 20 \\ 0 \\ 12 \\ 13 \\ 9 \\ 20 \\ 0 \\ 12 \\ 13 \\ 9 \\ 20 \\ 0 \\ 12 \\ 13 \\ 9 \\ 20 \\ 0 \\ 12 \\ 13 \\ 9 \\ 20 \\ 0 \\ 10 \\ 14 \\ 13 \\ 9 \\ 20 \\ 0 \\ 10 \\ 14 \\ 13 \\ 9 \\ 20 \\ 0 \\ 10 \\ 10 \\ 10 \\ 10 \\ 10 \\ 10 $ | $\begin{array}{c} y_{0}^{\rm ds.} \ ft. \\ y_{0}^{\rm ds.} \ ft. \\ y_{1}^{\rm ds.} \ y_{1}^{\rm ds.} \\ z_{1}^{\rm ds} \ z_{2}^{\rm ds} \\ z_{1}^{\rm ds} \ z_{2}^{\rm ds} \\ z_{1}^{\rm ds} \ z_{2}^{\rm ds} \\ z_{2}^{\rm ds} \ z_{2}^{\rm ds} \\ z_{1}^{\rm ds} \ z_{2}^{\rm ds} \\ z_{2}^{\rm ds} \ z_{2}^{\rm ds} \\ z_{1}^{\rm ds} \ z_{2}^{\rm ds} \\ z_{2}^{\rm ds} $ | $\begin{array}{c} yds. \ ft. \\ 0 \ 13\frac{3}{2} \\ 1 \ 0 \\ 2 \ 0 \\ 3 \ 0 \\ 4 \ 0 \\ 5 \ 0 \\ 7 \ 0 \\ 8 \\ 9 \ 0 \\ 10 \ 0 \\ 11 \ 0 \\ 12 \ 0 \\ 13 \ 0 \\ 14 \ 0 \\ 15 \ 0 \\ 14 \ 0 \\ 15 \ 0 \\ 17 \ 0 \\ 19 \ 0 \\ 30 \ 0 \\ 40 \ 0 \\ 60 \ 0 \\ 60 \ 0 \\ \end{array}$ | $\begin{array}{c} y_{\rm cls.} \ ft. \\ y_{\rm cl} \ 0 \ 15\frac{1}{2} \\ y_{\rm cl} \ 2 \ 9 \\ y_{\rm cl} \ 3 \ 13\frac{1}{2} \\ y_{\rm cl} \ 2 \\ y_{\rm cl} \ 2$ | |

TABLE 11 .- CUBIC CONTENT OF OBLONG STACKS.

| ų. | | | : | Breadth | 2 feet. | - | | |
|--|---|---|--|---|---|---|--|--|
| Lengt | Height 6 inches. | Height 1 foot. | Height 1 ft. 6 in. | Height 2 feet. | Height 2 ft. 6 in. | Height 3 feet. | Height 4 feet. | Height 5 feet. |
| F 1 2 3 4 5 6 7 8 9 10112 18 14 15 6 17 8 9 20 3 40 60 | $\begin{array}{cccccccccccccccccccccccccccccccccccc$ | $\begin{array}{c} yds, \ fL\\ 0 \ 1\\ 0 \ 2\\ 0 \ 4\\ 0 \ 6\\ 0 \ 8\\ 0 \ 10\\ 0 \ 12\\ 0 \ 14\\ 0 \ 16\\ 0 \ 12\\ 0 \ 14\\ 0 \ 16\\ 0 \ 20\\ 22\\ 0 \ 24\\ 1 \ 1\\ 1 \ 3\\ 1 \ 5\\ 1 \ 7\\ 1 \ 7\\ 1 \ 11\\ 1 \ 13\\ 2 \ 6\\ 3 \ 19\\ 4 \ 12\\ \end{array}$ | $\begin{array}{c} yds. \ fl. \\ 0 \ 1\frac{1}{3} \\ 0 \ 6 \\ 0 \ 9 \\ 0 \ 12 \\ 0 \ 15 \\ 0 \ 21 \\ 0 \ 21 \\ 0 \ 21 \\ 0 \ 21 \\ 1 \ 21 \\ 1 \ 21 \\ 1 \ 22 \\ 1 \ 22 \\ 1 \ 23 \\ 2 \ 6 \\ 1 \ 23 \\ 2 \ 1 \ 23 \ 23 \ 23 \ 23 \ 23 \ 23 \ 2$ | $\begin{array}{c} yds. \ ft. \\ 0 \ 9 \\ 0 \ 8 \\ 0 \ 16 \\ 0 \ 204 \\ 1 \ 1 \\ 1 \ 9 \\ 1 \ 17 \\ 1 \ 21 \\ 1 \ 29 \\ 2 \ 6 \\ 1 \ 17 \\ 1 \ 21 \\ 2 \ 29 \\ 2 \ 10 \\ 2 \ 14 \\ 2 \ 22 \\ 1 \ 22 \\ 2 \ 10 \\ 2 \ 14 \\ 2 \ 22 \\ 1 \ 22 \\ 2 \ 10 \\ 2 \ 18 \\ 2 \ 22 \\ 1 \ 22 \\ 2 \ 10 \\ 2 \ 18 \\ 2 \ 22 \\ 1 \ 22 \\ 2 \ 10 \\ 2 \ 18 \\ 2 \ 22 \\ 2 \ 10 \\ 2 \ 18 \\ 2 \ 22 \\ 2 \ 10 \\ 2 \ 18 \\ 2 \ 22 \\ 1 \ 12 \\ 5 \ 22 \\ 1 \ 18 \\ 2 \ 4 \\ 1 \ 2 \ 11 \\ 8 \ 24 \\ \end{array}$ | $\begin{array}{c} yds. \ ft. \\ y 0 \ \ yk \\ 0 \ \ yk \ \ yk \\ 0 \ \ yk \ \ \ yk \ \ yk \ \ yk \ \ yk \ \ \ \$ | $\begin{array}{c} yds, \ ft, \\ 0 \ \ s \\ 0 \ \ ls \\ 1 \ \ s \ \ s \\ 1 \ \ s \ \ s \\ 1 \ \ s \ \ \ s \ \ s \ \ s \ \ \ s \ \ \ s \ \ s \ \ \ s \ \ \ \ s \$ | $\begin{array}{c} yds, \ ft. \\ 0 \ 4 \\ 0 \ 8 \\ 0 \ 16 \\ 1 \ 25 \\ 1 \ 13 \\ 2 \ 26 \\ 2 \ 18 \\ 2 \ 26 \\ 2 \ 28 \\ 2 \ 26 \\ 3 \ 15 \\ 3 \ 23 \\ 4 \\ 4 \\ 10 \\ 5 \ 19 \\ 5 \ 27 \\ 5 \ 24 \\ 11 \ 23 \\ 14 \ 22 \\ 17 \ 21 \\ \end{array}$ | $\begin{array}{c} yds. ft.\\ 0 & 5\\ 0 & 10\\ 0 & 20\\ 1 & 13\\ 1 & 23\\ 2 & 16\\ 2 & 26\\ 2 & 26\\ 1 & 22\\ 3 & 19\\ 2 & 26\\ 1 & 22$ |
| | Height 6 feet. | Height 7 feet. | Height 8 feet. | Height 9 feet. | Height 12 feet. | Height 15 feet. | Height 18 feet. | Height 21 feet. |
| Ft. 1234567890011213145617892000400040004000 | $\begin{array}{c} yds. \ ft. \\ 0 \ 6 \ 0 \ 12 \\ 0 \ 24 \\ 1 \ 9 \\ 1 \ 21 \\ 2 \ 6 \\ 3 \ 3 \ 5 \\ 3 \ 5 \\ 3 \ 5 \\ 5 \ 21 \\ 6 \ 6 \\ 6 \ 6 \\ 8 \\ 12 \\ 4 \\ 12 \\ 2 \\ 6 \\ 6 \\ 18 \\ 17 \ 21 \\ 17 \ 21 \\ 22 \\ 6 \\ 26 \\ 18 \\ 18 \\ 22 \\ 6 \\ 18 \\ 22 \\ 6 \\ 18 \\ 22 \\ 6 \\ 18 \\ 22 \\ 6 \\ 18 \\ 22 \\ 6 \\ 18 \\ 22 \\ 6 \\ 18 \\ 22 \\ 17 \ 21 \\ 22 \\ 6 \\ 26 \\ 18 \\ 22 \\ 6 \\ 18 \\ 22 \\ 6 \\ 18 \\ 22 \\ 18 \\ 22 \\ 6 \\ 18 \\ 22 \\ 18 \\ 22 \\ 18 \\ 22 \\ 18 \\ 22 \\ 18 \\ 22 \\ 18 \\ 22 \\ 18 \\ 22 \\ 18 \\ 22 \\ 18 \\ 22 \\ 18 \\ 22 \\ 18 \\ 22 \\ 18 \\ 22 \\ 18 \\ 22 \\ 18 \\ 22 \\ 18 \\ 22 \\ 18 \\ 22 \\ 18 \\ 22 \\ 18 \\ 22 \\ 18 \\ 22 \\ 18 \\ 21 \\ 17 \\ 21 \\ 22 \\ 22 \\ 6 \\ 28 \\ 28 \\ 28 \\ 28 \\ 28 $ | $\begin{array}{c} yds. \ ft.\\ 0 \ 7 \\ 0 \ 14 \\ 1 \ 1 \\ 1 \ 15 \\ 2 \ 2 \\ 2 \ 16 \\ 8 \\ 3 \ 3 \\ 17 \\ 4 \\ 4 \\ 18 \\ 5 \\ 5 \\ 19 \\ 6 \\ 6 \\ 20 \\ 7 \\ 7 \\ 1 \\ 8 \\ 8 \\ 2 \\ 9 \\ 9 \\ 2 \\ 3 \\ 1 \\ 3 \\ 3 \\ 17 \\ 4 \\ 4 \\ 18 \\ 5 \\ 5 \\ 19 \\ 6 \\ 6 \\ 20 \\ 7 \\ 7 \\ 1 \\ 15 \\ 15 \\ 10 \\ 20 \\ 20 \\ 20 \\ 20 \\ 20 \\ 20 \\ 20$ | $\begin{array}{c} yds. ft.\\ 0 & 6\\ 0 & 16\\ 1 & 5\\ 1 & 21\\ 2 & 26\\ 4 & 4\\ 4 & 20\\ 5 & 25\\ 4 & 4\\ 4 & 20\\ 5 & 25\\ 6 & 14\\ 7 & 19\\ 8 & 8\\ 4 & 4\\ 7 & 19\\ 8 & 8\\ 10 & 18\\ 10 & 18\\ 11 & 7\\ 11 & 23\\ 17 & 21\\ 11 & 23\\ 17 & 21\\ 23 & 15\\ 35 & 15\\ \end{array}$ | $\begin{array}{c} yds. \ ft. \\ 0 \ 9 \\ 0 \ 18 \\ 1 \ 9 \\ 2 \ 0 \\ 18 \\ 3 \ 9 \\ 4 \ 0 \\ 4 \ 18 \\ 5 \\ 6 \\ 18 \\ 9 \\ 9 \\ 10 \\ 10 \\ 18 \\ 11 \\ 9 \\ 12 \\ 0 \\ 12 \\ 13 \\ 13 \\ 9 \\ 9 \\ 0 \\ 0 \\ 12 \\ 13 \\ 9 \\ 9 \\ 0 \\ 0 \\ 12 \\ 13 \\ 9 \\ 9 \\ 0 \\ 0 \\ 12 \\ 13 \\ 9 \\ 9 \\ 0 \\ 0 \\ 12 \\ 13 \\ 9 \\ 9 \\ 0 \\ 0 \\ 12 \\ 13 \\ 9 \\ 9 \\ 0 \\ 0 \\ 12 \\ 13 \\ 9 \\ 9 \\ 0 \\ 0 \\ 12 \\ 13 \\ 9 \\ 9 \\ 0 \\ 0 \\ 10 \\ 18 \\ 11 \\ 9 \\ 12 \\ 0 \\ 12 \\ 13 \\ 9 \\ 9 \\ 0 \\ 0 \\ 10 \\ 18 \\ 11 \\ 13 \\ 9 \\ 9 \\ 0 \\ 0 \\ 0 \\ 10 \\ 18 \\ 13 \\ 9 \\ 9 \\ 0 \\ 0 \\ 0 \\ 10 \\ 18 \\ 13 \\ 9 \\ 9 \\ 0 \\ 0 \\ 0 \\ 10 \\ 18 \\ 13 \\ 9 \\ 9 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0$ | $\begin{array}{c} yds. \ ft. \\ 0 \ 12 \\ 1 \ 21 \\ 2 \ 18 \\ 1 \ 21 \\ 2 \ 18 \\ 1 \ 21 \\ 2 \ 18 \\ 1 \ 21 \\ 2 \ 18 \\ 1 \ 21 \\ 2 \ 18 \\ 1 \ 21 \\ 2 \ 18 \\ 1 \ 21 \\ 10 \ 18 \\ 11 \ 15 \\ 12 \ 12 \\ 13 \\ 16 \\ 0 \\ 16 \ 21 \\ 26 \ 18 \\ 35 \ 15 \\ 14 \\ 12 \\ 53 \\ 9 \end{array}$ | $\begin{array}{c} yds. \ ft. \\ 0 \ 15 \\ 1 \ 3 \\ 2 \ 6 \\ 3 \ 9 \\ 4 \ 12 \\ 5 \ 15 \\ 6 \ 18 \\ 7 \ 21 \\ 12 \ 6 \\ 13 \ 9 \\ 14 \ 12 \\ 15 \ 15 \\ 16 \ 18 \\ 16 \ 18 \\ 16 \ 18 \\ 12 \ 0 \\ 20 \ 0 \\ 21 \ 3 \\ 22 \ 6 \\ 33 \ 9 \\ 44 \ 12 \\ 55 \ 15 \\ 66 \ 18 \\ \end{array}$ | $\begin{array}{c} yds. \ fl. \\ 0 \ 18 \\ 1 \ 9 \\ 2 \ 18 \\ 4 \ 0 \\ 5 \ 9 \\ 6 \ 18 \\ 12 \\ 0 \\ 13 \\ 12 \\ 0 \\ 14 \\ 18 \\ 12 \\ 0 \\ 14 \\ 18 \\ 16 \\ 0 \\ 11 \\ 9 \\ 18 \\ 18 \\ 12 \\ 0 \\ 21 \\ 18 \\ 18 \\ 22 \\ 18 \\ 24 \\ 0 \\ 25 \\ 18 \\ 24 \\ 0 \\ 25 \\ 18 \\ 24 \\ 0 \\ 25 \\ 18 \\ 20 \\ 18 \\ 24 \\ 0 \\ 25 \\ 18 \\ 20 \\ 18 \\ 20 \\ 18 \\ 20 \\ 18 \\ 20 \\ 18 \\ 20 \\ 18 \\ 20 \\ 18 \\ 20 \\ 18 \\ 20 \\ 10 \\ 10 \\ 10 \\ 10 \\ 10 \\ 10 \\ 10$ | $\begin{array}{c} yds. ft.\\ 0 \ 21\\ 1 \ 15\\ 8 \ 3\\ 6 \ 6\\ 7 \ 21\\ 9 \ 9\\ 10 \ 24\\ 12 \ 12\\ 14 \ 0\\ 15 \ 15\\ 18 \ 18\\ 18 \ 16\\ 21 \ 21\\ 28 \ 0\\ 29 \ 15\\ 28 \ 13\\ 81 \ 8\\ 62 \ 62\\ 18\\ 18\\ 18\\ 81 \ 8\\ 62 \ 13\\ 28 \ 9\\ 29 \ 15\\ 31 \ 8\\ 18\\ 18\\ 18\\ 18\\ 18\\ 18\\ 18\\ 18\\ 18\\ $ |

TABLE II .- CUBIC CONTENT OF OBLONG STACKS.

| th. | Breadth 2 feet 6 inches. | | | | | | | | |
|---|--|---|--|--|--|---|--|--|--|
| Leng | Height 6 inches. | Height 1 foot. | Height 1 ft. 6 in. | Height 2 feet. | Height 2 ft. 6 in. | Height 8 feet. | Height 4 feet. | Height 5 feet. | |
| Ft. 1 2 3 4 5 6 7 8 9 10 11 12 13 4 5 16 7 8 9 10 11 12 13 4 5 16 17 8 9 20 3 4 5 6 0 | $ \begin{array}{c} t.\\ s.\\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0$ | $\begin{array}{c} yds. \ ft. \\ 0 \ 144\\ 0 \ 5\\ 0 \ 7\\ 0 \ 124\\ 0 \ 5\\ 0 \ 10\\ 124\\ 0 \ 124\\ 0 \ 124\\ 0 \ 124\\ 0 \ 124\\ 0 \ 124\\ 0 \ 124\\ 0 \ 124\\ 1 \ 124$ 1 \ 124\\ 1 \ 124 1 \ 124\ 1 \ 124 1 \ 124\ 1 \ | $ \begin{array}{c} t. \\ 1 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0$ | $\begin{array}{c} yds, \ ft. \\ 0 \ 0 \ 2s \\ 0 \ 10 \\ 0 \ 15 \\ 1 \ 8s \\ 1 \ 18 \\ 1 \ 2s \\ 1 \ 18 \\ 1 \ 2s \\ 1 \ 18 \\ 2 \ 16 \\ 2 \ 216 \\ 2 \ 216 \\ 2 \ 216 \\ 2 \ 216 \\ 3 \ 4 \\ 3 \ 19 \\ 14 \\ 3 \ 19 \\ 7 \ 11 \\ 3 \end{array}$ | $\begin{array}{c} y_{\rm ds.} \ ft. \\ y_{\rm 0} \ 0 \ 8^{+}_{\rm 0} \\ 0 \ 123^{+}_{\rm 0} \\ 0 \ 123^{+}_{\rm 0} \\ 1 \ 103^{+}_{\rm 0} \\ 1 \ 103^{+}_{\rm 0} \\ 2 \ 24^{+}_{\rm 0} \\ 2 \ 24^{+}_{\rm 0} \\ 2 \ 21^{+}_{\rm 0} \\ 3 \ 12^{+}_{\rm 0} \\ 3 \ 12^{+}_{\rm 0} \\ 3 \ 12^{+}_{\rm 0} \\ 4 \ 175^{+}_{\rm 0} \\ 3 \ 12^{+}_{\rm 0} \\ 4^{+}_{\rm 0} \\ 175^{+}_{\rm 0} \\ 7^{+}_{\rm 1} \\ 13 \ 24 \end{array}$ | $\begin{array}{c} yds, \ ft, \\ 0 \ 3\frac{3}{4}, \\ 0 \ 0 \ 15 \\ 0 \ 22\frac{1}{5} \\ 1 \ 10\frac{1}{5} \\ 2 \ 21\frac{1}{4}, \\ 3 \ 9 \\ 3 \ 12\frac{1}{4}, \\ 4 \ 12\frac{1}{5} \\ 4 \ 12\frac{1}{5} \\ 1 \ 25 \\ 11 \ 3 \\ 4 \ 12\frac{1}{5} \\ 13 \ 24 \\ 16 \ 18 \end{array}$ | $\begin{array}{c} yds. \ ft. \\ 0 \ 5 \\ 0 \ 10 \\ 1 \ 32 \\ 1 \ 33 \\ 1 \ 23 \\ 2 \ 16 \\ 2 \ 26 \\ 2 \ 16 \\ 2 \ 26 \\ 1 \ 32 \\ 2 \ 16 \\ 2 \ 26 \\ 1 \ 32 \\ 1 \ 32 \\ 1 \ 32 \\ 1 \ 32 \\ 1 \ 4 \ 22 \\ 1 \ 32 \\ 1 \ 1 \ 32 \\ 1 \ 4 \ 22 \\ 1 \ 32 \\ 2 \ 22 \\ 6 \end{array}$ | $\begin{array}{c} y_{ds,} \text{ ft.} \\ y_{0} \text{ (64)} \\ 0 \text{ (12)} \\ 1 \text{ (23)} \\ 2 \text{ (21)} \\ 3 \text{ (23)} \\ 2 \text{ (21)} \\ 3 \text{ (23)} \\ 3 $ | |
| | Height 6 feet. | Height 7 feet. | Height 8 feet. | Height 9 feet. | Height 12 feet. | Height 15 feet. | Height 18 feet. | Height 21 feet, | |
| Ft. \$122345678900111123345678900111123314516718920040060 | $\begin{array}{c} yds. \ ft.\\ 0 \ 7b \\ 0 \ 15 \\ 1 \ 8 \\ 1 \ 18 \\ 1 \ 18 \\ 2 \ 21 \\ 3 \ 24 \\ 4 \ 12 \\ 2 \ 21 \\ 3 \ 24 \\ 4 \ 12 \\ 5 \ 15 \\ 16 \ 18 \\ 22 \ 6 \\ 3 \ 6 \ 18 \\ 16 \ 18 \\ 22 \ 21 \\ 3 \ 3 \ 9 \\ \end{array}$ | $\begin{array}{c} yds. \ fl. \\ y 0 \ 8^{2}_{9} \\ 1 \ 8^{2}_{10} \\ 1 \ 8^{2}_{10} \\ 1 \ 8^{2}_{10} \\ 1 \ 8^{2}_{10} \\ 1 \ 8^{2}_{10} \\ 1 \ 8^{2}_{10} \\ 1 \ 8^{2}_{10} \\ 1 \ 8^{2}_{10} \\ 1 \ 8^{2}_{10} \\ 1 \ 8^{2}_{10} \\ 1 \ 8^{2}_{10} \\ 1 \ 8^{2}_{10} \\ 1 \ 1 \ 8^{2}_{10} \\ 1 \ 1 \ 1 \ 8^{2}_{10} \\ 1 \ 1 \ 1 \ 2 \ 8^{2}_{10} \\ 1 \ 1 \ 1 \ 2 \ 8^{2}_{10} \\ 1 \ 1 \ 1 \ 2 \ 8^{2}_{10} \\ 1 \ 1 \ 1 \ 2 \ 8^{2}_{10} \\ 1 \ 1 \ 1 \ 2 \ 8^{2}_{10} \\ 1 \ 1 \ 1 \ 2 \ 8^{2}_{10} \\ 1 \ 1 \ 1 \ 2 \ 8^{2}_{10} \\ 1 \ 1 \ 1 \ 2 \ 8^{2}_{10} \\ 1 \ 1 \ 1 \ 1 \ 8^{2}_{10} \\ 1 \ 1 \ 1 \ 1 \ 8^{2}_{10} \\ 1 \ 1 \ 1 \ 1 \ 8^{2}_{10} \\ 1 \ 1 \ 1 \ 1 \ 8^{2}_{10} \\ 1 \ 1 \ 1 \ 1 \ 8^{2}_{10} \\ 1 \ 1 \ 1 \ 1 \ 8^{2}_{10} \\ 1 \ 1 \ 1 \ 1 \ 8^{2}_{10} \\ 1 \ 1 \ 1 \ 1 \ 8^{2}_{10} \\ 1 \ 1 \ 1 \ 1 \ 1 \ 8^{2}_{10} \\ 1 \ 1 \ 1 \ 1 \ 1 \ 1 \ 1 \ 1 \ 1 \ 1$ | $\begin{array}{c} yds. \ ft. \\ 0 \ 10 \\ 0 \ 20 \\ 1 \ 13 \\ 2 \ 6 \\ 3 \ 19 \\ 4 \\ 5 \ 5 \\ 5 \\ 5 \\ 5 \\ 5 \\ 5 \\ 5 \\ 5 \\ 5$ | $\begin{array}{c} yds. \ ft. \\ 0 \ 114\\ 0 \ 118\\ 1 \ 18\\ 2 \ 134\\ 3 \ 0 \ 18\\ 1 \ 18\\ 2 \ 134\\ 6 \ 18\\ 1 \ 18\ 18\\ 1 \ 18\ 18\\ 1 \ 18\ 18\ 18\ 18\ 18\ 18\ 18\ 18\ 18\$ | $\begin{array}{cccccccccccccccccccccccccccccccccccc$ | $\begin{array}{c} yds. \ ft. \\ 0 \ 18\frac{4}{2} \\ 1 \ 2 \ 21 \\ 4 \ 4\frac{1}{2} \\ 5 \ 15 \\ 6 \ 25\frac{1}{2} \\ 8 \ 9 \ 9 \ 19\frac{1}{2} \\ 9 \ 9 \ 19\frac{1}{2} \\ 113 \ 133 \\ 13 \ 24 \\ 123 \ 135 \\ 13 \ 24 \\ 123 \ 135 \\ 13 \ 24 \\ 20 \ 22\frac{1}{2} \\ 223 \ 6 \\ 23 \ 16\frac{1}{2} \\ 19 \ 12 \\ 20 \ 22\frac{1}{2} \\ 21 \ 12 \\ 10 \ 10 \ 10 \ 10 \ 10 \ 10 \ 10 \ 10$ | $\begin{array}{c} yds. \ (fc. \\ 0 \ 222 \\ s \\ 1 \ 18 \\ s \\ 9 \\ 5 \ 0 \\ 6 \ 18 \\ 8 \\ 9 \\ 10 \\ 0 \\ 11 \\ 18 \\ 13 \\ 9 \\ 15 \\ 0 \\ 11 \\ 18 \\ 13 \\ 9 \\ 20 \\ 0 \\ 21 \\ 18 \\ 23 \\ 9 \\ 25 \\ 18 \\ 23 \\ 9 \\ 25 \\ 18 \\ 23 \\ 9 \\ 25 \\ 18 \\ 23 \\ 9 \\ 25 \\ 18 \\ 23 \\ 9 \\ 25 \\ 18 \\ 23 \\ 9 \\ 25 \\ 18 \\ 23 \\ 9 \\ 25 \\ 18 \\ 23 \\ 9 \\ 25 \\ 18 \\ 28 \\ 18 \\ 33 \\ 9 \\ 20 \\ 0 \\ 0 \\ 66 \\ 18 \\ 33 \\ 9 \\ 100 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\$ | $\begin{array}{c} yds. ft. \\ 0 & 26l_{2}^{4} \\ 1 & 25l_{2}^{4} \\ 5 & 22l_{3}^{4} \\ 7 & 21 \\ 9 & 19l_{2}^{4} \\ 11 & 18 \\ 13 & 16l_{3}^{5} \\ 15 & 16l_{3}^{5} \\ 19 & 10 \\ 23 & 9 \\ 27 & 6 \\ 29 & 4l_{3} \\ 33 & 1b \\ 38 & 8 \\ 29 \\ 77 & 21 \\ 37 & 21 \\ 87 & 21 \\ 87 & 6 \\ 116 & 18 \\ \end{array}$ | |

25

TABLE II .- CUBIC CONTENT OF OBLONG STACKS.

| th. | | Breadth 3 feet. | | | | | | | |
|--|--|--|--|--|---|--|---|--|--|
| ILeng | Height 6 inches | Height 1 feot. | Height 1 ft. 6 in. | Height 2 feet. | Height 21t. 6in. | Height 3 feet. | Height 4 feet. | Height 5 feet. | |
| Ft. 1 2 3 4 5 6 7 8 9 100 111 12 13 14 15 6 6 7 8 9 200 300 600 | $\begin{array}{c} yds. \ ft. \\ 0 \ 0 \ 10^{\frac{1}{2}} \\ 0 \ 0 \ 5 \\ 0 \ 6 \\ 0 \ 7^{\frac{1}{2}} \\ 0 \ 10^{\frac{1}{2}} \\ 0 \ 22^{\frac{1}{2}} \\ 0 \ 22^{$ | $\begin{array}{c} yds. \ ft. \\ 0 \ 1\frac{1}{2} \\ 0 \ 0 \ 1\frac{1}{2} \\ 0 \ 0 \ 0 \ 0 \\ 0 \ 0 \ 12 \\ 0 \ 15 \\ 0 \ 21 \\ 1 \ 0 \ 21 \\ 1 \ 0 \ 21 \\ 1 \ 12 \\ 1 \ 12 \\ 1 \ 22 \\ 0 \ 2 \ 3 \\ 2 \ 6 \ 18 \\ \end{array}$ | $\begin{array}{c} yds. ft. \\ 0 & 2\frac{1}{4} \\ 0 & 9 \\ 0 & 13\frac{1}{4} \\ 0 & 22\frac{1}{4} \\ 1 & 0 \\ 1 & 13\frac{1}{4} \\ 1 & 18\frac{1}{4} \\ 2 & 0 \\ 1 & 13\frac{1}{4} \\ 1 & 18\frac{1}{4} \\ 2 & 0 \\ 2 & 13\frac{1}{4} \\ 2 & 20\frac{1}{4} \\ 2 & 22\frac{1}{4} \\ 3 & 20\frac{1}{4} \\ 3 & 20\frac{1}{4} \\ 3 & 9 \\ 1 & 0 \\ 6 & 18 \\ 9 \\ 10 \\ 0 \end{array}$ | $\begin{array}{c} {\rm yds. \ ft.} \\ {\rm yds. \ ft.} \\ {\rm o} & {\rm 36} \\ {\rm 0} & {\rm 19} \\ {\rm 0} & {\rm 128} \\ {\rm 1} & {\rm 39} \\ {\rm 1} & {\rm 151} \\ {\rm 120} \\ {\rm 2} & {\rm 218} \\ {\rm 2} & {\rm 128} \\ {\rm 2} & {\rm 218} \\ $ | $\begin{array}{c} yds. ft. \\ 0 & 3\frac{3}{4}\\ 0 & 7\frac{3}{4}\\ 0 & 7\frac{3}{4}\\ 0 & 15\\ 0 & 23\frac{3}{4}\\ 1 & 10\frac{3}{4}\\ 1 & 10\frac{3}{4}\\ 1 & 25\frac{3}{4}\\ 2 & 21\frac{3}{4}\\ 2 & 21\frac{3}{4}\\ 2 & 21\frac{3}{4}\\ 3 & 9\frac{3}{3}\\ 3 & 24\frac{4}{4}\\ 4 & 4\frac{3}{4}\\ 4 & 12\frac{3}{4}\\ 1 & 25\frac{3}{4}\\ $ | $\begin{array}{c} yds. \ ft. \\ 0 \ 4\frac{1}{8} \\ 0 \ 18 \\ 1 \ 0 \\ 1 \ 9 \\ 1 \ 18 \\ 2 \ 9 \\ 2 \ 18 \\ 3 \ 18 \\ 4 \ 0 \\ 4 \ 18 \\ 5 \ 0 \\ 5 \ 18 \\ 6 \ 0 \\ 6 \ 18 \\ 5 \ 18 \\ 6 \ 0 \\ 6 \ 18 \\ 13 \ 9 \\ 6 \ 18 \\ 20 \ 0 \end{array}$ | $\begin{array}{c} yds. \ ft. \\ 0 \ \ 6 \\ 0 \ \ 12 \\ 1 \ \ 9 \\ 1 \ \ 21 \\ 2 \ \ 6 \\ 3 \ \ 3 \\ 1 \ \ 21 \\ 2 \ \ 6 \\ 3 \ \ 3 \\ 1 \ \ 21 \\ 2 \ \ 6 \\ 6 \ \ 18 \\ 7 \ \ 15 \\ 8 \ \ 12 \\ 13 \ \ 9 \\ 17 \ \ 21 \\ 22 \ \ 6 \\ 18 \end{array}$ | $\begin{array}{c} yds. ft.\\ 0 & 7\frac{1}{2}\\ 0 & 7\frac{1}{2}\\ 1 & 5\\ 1 & 5\\ 2 & 21\\ 3 & 24\\ 4 & 12\\ 2 & 21\\ 5 & 15\\ 6 & 3\\ 6 & 18\\ 7 & 21\\ 8 & 24\\ 4 & 12\\ 2 & 1\\ 1 & 3\\ 6 & 18\\ 7 & 21\\ 1 & 3\\ 1 & 6\\ 1 & 3\\ 2 & 1\\ 1 & 18\\ 2 & 2 & 6\\ 2 & 7 & 21\\ 1 & 3\\ 1 & 18\\ 2 & 2 & 6\\ 2 & 7 & 21\\ 2 & 2 & 2\\ 3 & 3\\ 3 & 9\\ 1 & 3 & 2\\ 1 & 3 & 2\\ 1 & 3 & 3\\ 1 & 1 & 18\\ 2 & 2 & 1\\ 2 & 2 & 1\\ 2 & 2 & 1\\ 2 & 2 & 2\\ 3 & 3 & 9\\ 1 & 3 & 2\\ 1 & 1 & 1\\ 1 & 1 & 1\\ 1 & 1 & 1\\ 1 & 1 &$ | |
| | Height 6 feet. | Height 7 feet. | Height 8 feet. | Height 9 feet. | Height 12 feet. | Height 15 feet. | Height 18 feet. | Height 21 feet. | |
| 1 2 8 4 5 6 7 8 9 10 11 2 2 13 4 15 16 7 7 18 9 20 30 40 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 | $\begin{array}{c} yds. \ ft. \\ 0 \ 9 \\ 0 \ 18 \\ 1 \ 9 \\ 9 \\ 2 \ 18 \\ 3 \ 9 \\ 4 \ 0 \\ 4 \ 18 \\ 5 \\ 6 \ 18 \\ 9 \\ 9 \\ 6 \\ 10 \\ 10 \\ 12 \\ 12 \\ 0 \\ 12 \\ 13 \\ 9 \\ 20 \\ 0 \\ 0 \\ 12 \\ 13 \\ 9 \\ 20 \\ 10 \\ 12 \\ 13 \\ 9 \\ 20 \\ 10 \\ 12 \\ 13 \\ 9 \\ 20 \\ 10 \\ 12 \\ 13 \\ 9 \\ 20 \\ 10 \\ 12 \\ 13 \\ 9 \\ 20 \\ 10 \\ 12 \\ 13 \\ 9 \\ 20 \\ 10 \\ 10 \\ 10 \\ 10 \\ 10 \\ 10 \\ 10$ | $\begin{array}{c} yds, \ ft. \\ 0 \ 10^{3}\\ 0 \ 21 \\ 1 \ 15 \\ 9 \ 9 \\ 3 \ 3 \ 24 \\ 4 \ 18 \\ 5 \ 12 \\ 6 \ 6 \ 7 \ 01 \\ 8 \ 15 \\ 12 \\ 12 \\ 12 \\ 13 \\ 6 \\ 14 \\ 0 \\ 14 \\ 12 \\ 12 \\ 13 \\ 16 \\ 15 \\ 15 \\ 23 \\ 9 \\ 38 \\ 24 \\ 46 \\ 18 \end{array}$ | $\begin{array}{c} yds, ft. \\ 0 \ 12 \\ 0 \ 24 \\ 1 \ 21 \\ 2 \ 18 \\ 1 \ 21 \\ 2 \ 18 \\ 1 \ 21 \\ 2 \ 18 \\ 1 \ 21 \\ 2 \ 18 \\ 1 \ 21 \\ 2 \ 18 \\ 15 \\ 10 \ 18 \\ 11 \ 15 \\ 12 \ 12 \\ 13 \\ 14 \\ 6 \\ 16 \ 0 \\ 17 \ 21 \\ 26 \ 18 \\ 17 \ 21 \\ 26 \ 18 \\ 15 \ 15 \\ 15 \\ 15 \\ 15 \\ 15 \\ 15 \\ 15$ | $\begin{array}{c} yds, \ ft, \\ 0 \ 13\frac{3}{2} \\ 1 \\ 2 \\ 0 \\ 3 \\ 0 \\ 4 \\ 0 \\ 5 \\ 0 \\ 6 \\ 0 \\ 7 \\ 0 \\ 8 \\ 0 \\ 10 \\ 0 \\ 10 \\ 0 \\ 10 \\ 0 \\ 10 \\ 0 \\ $ | $\begin{array}{c} yds, \ ft. \\ 0 \ 18 \\ 1 \ 9 \\ 2 \ 18 \\ 4 \ 0 \\ 5 \ 9 \\ 6 \ 18 \\ 8 \\ 9 \ 9 \\ 9 \\ 10 \ 18 \\ 18 \\ 16 \\ 0 \\ 11 \\ 9 \\ 9 \\ 14 \\ 18 \\ 16 \\ 0 \\ 11 \\ 9 \\ 22 \\ 18 \\ 18 \\ 18 \\ 22 \\ 18 \\ 18 \\ 22 \\ 18 \\ 18$ | $\begin{array}{c} yds, \ ft. \\ 0 \ 223 \\ 1 \ 3 \ 9 \\ 5 \ 0 \\ 6 \ 18 \\ 8 \ 9 \\ 10 \ 0 \\ 11 \ 18 \\ 9 \\ 15 \ 0 \\ 16 \ 18 \\ 9 \\ 16 \ 0 \\ 16 \ 18 \\ 9 \\ 20 \ 0 \\ 21 \ 18 \\ 23 \ 9 \\ 20 \ 0 \\ 26 \ 18 \\ 23 \ 9 \\ 25 \ 0 \\ 26 \ 18 \\ 23 \ 9 \\ 20 \ 0 \\ 31 \ 18 \\ 9 \\ 30 \ 0 \\ 31 \ 18 \\ 9 \\ 30 \ 0 \\ 31 \ 18 \\ 9 \\ 40 \ 0 \\ 66 \ 18 \\ 83 \ 9 \\ 100 \ 0 \end{array}$ | $\begin{array}{cccccccccccccccccccccccccccccccccccc$ | $\begin{array}{c} yds. \ ft. \\ 1 \ 44 \\ 9 \ 9 \\ 9 \ 9 \\ 11 \ 18 \\ 14 \ 0 \\ 16 \ 9 \\ 21 \ 0 \\ 22 \ 18 \\ 21 \ 0 \\ 22 \ 18 \\ 22 \ 18 \\ 22 \ 18 \\ 32 \ 18 \\ 33 \ 18 \\ 10 \ 18 \\ 10 \ 10 \\ 10 \ 10 \\ 10 \ 10 \\ 10 \ 10 \\ 10 \ 10 \\ 10 \ 10 \\ 10 \ 10 \\ 10 \ 10 \\ 10 \ 10 \\ 10 \ 10 \\ 10 \ 10 \\ 10 \ 10 \\ 10 \ 10 \\ 10 \ 10 \$ | |

TABLE II .- CUBIC CONTENT OF OBLONG STACKS.

27

| th. | Breadth 4 feet. | | | | | | | |
|---|--|---|---|---|---|--|--|---|
| Leng | Height 6 inches. | Height 1 foot. | Height 1ft.6in. | Height 2 feet. | Height 2 ft. 6 in. | Height 3 feet. | Height 4 fect. | Height 5 feet. |
| $\begin{array}{c} \text{Ft.} & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & $ | $\begin{array}{c} yds. \ ft. \\ 0 \ 2 \\ 0 \ 2 \\ 0 \ 4 \\ 0 \ 6 \\ 0 \ 8 \\ 0 \ 10 \\ 0 \ 12 \\ 0 \ 14 \\ 0 \ 16 \\ 0 \ 20 \\ 0 \ 24 \\ 0 \ 26 \\ 1 \ 1 \\ 1 \ 5 \\ 1 \ 5 \\ 1 \ 7 \\ 1 \ 9 \\ 1 \ 11 \\ 1 \ 13 \\ 2 \ 6 \\ 3 \ 19 \\ 4 \ 12 \end{array}$ | $\begin{array}{c} y_{ds.} \mbox{ ft.} \\ y_{0} \mbox{ 2} \\ 0 \mbox{ 2} \\ 1 \mbox{ 1} \\ 1 \mbox{ 2} \\ 0 \mbox{ 2} \\ 1 \mbox{ 1} \\ 1 \mbox{ 2} \\ 1 \mbox{ 1} \\ 1 \mbox{ 2} \\ 1 \mbox{ 1} \\ 1 \mbox{ 2} \\ 2 \mbox{ 2} \\ 1 \mbox{ 1} \\ 1 \mbox{ 2} \\ 2 \mbox{ 2} \\ 1 \mbox{ 2} \\ 2 \mbox{ 2} \\ 2 \mbox{ 2} \\ 2 \mbox{ 2} \\ 1 \mbox{ 2} \\ 2 \mbox{ 2} \mbox{ 2} \\ 2 \mbox{ 2} \mbox{ 2} \\ 2 \mbox{ 2} \mbox{ 2}$ | $\begin{array}{c} yds. \ ft. \\ 0 \ \ 3 \\ 0 \ \ 6 \\ 0 \ 13 \\ 0 \ 24 \\ 1 \ \ 3 \\ 1 \ \ 9 \\ 1 \ 15 \\ 2 \ 16 \\ 2 \ 18 \\ 2 \ 18 \\ 2 \ 24 \\ 2 \ 24 \\ 3 \ \ 3 \\ 3 \ \ 9 \\ 15 \\ 3 \ 21 \\ 4 \ \ 6 \\ 12 \\ 13 \\ 9 \end{array}$ | $\begin{array}{c} yds. \ ft. \\ 0 \ 4 \\ 0 \ 8 \\ 0 \ 16 \\ 1 \ 13 \\ 1 \ 2 \\ 2 \\ 2 \\ 2 \\ 1 \\ 2 \\ 2 \\ 2 \\ 18 \\ 2 \\ 2 \\ 1 \\ 2 \\ 2 \\ 1 \\ 2 \\ 2 \\ 1 \\ 2 \\ 2$ | $\begin{array}{c} yds, \ ft. \\ 0 \ 5 \\ 0 \ 10 \\ 1 \ 3 \\ 1 \ 23 \\ 2 \ 16 \\ 2 \ 16 \\ 2 \ 26 \\ 2 \ 26 \\ 3 \ 9 \\ 3 \ 19 \\ 3 \ 19 \\ 2 \\ 4 \ 12 \\ 4 \ 22 \\ 5 \ 5 \\ 15 \\ 5 \ 15 \\ 6 \ 18 \\ 7 \ 11 \\ 11 \\ 32 \\ 18 \ 14 \\ 22 \\ 6 \end{array}$ | $\begin{array}{c} yds. \ ft. \\ 0 \ 6\\ 0 \ 12\\ 0 \ 24\\ 1 \ 9\\ 1 \ 21\\ 2 \ 6\\ 3 \ 3\\ 3 \ 15\\ 4 \ 0\\ 4 \ 12\\ 1 \ 2\\ 6 \ 6\\ 6 \ 18\\ 12\\ 4 \ 24\\ 5 \ 9\\ 12\\ 6 \ 6\\ 18\\ 13\\ 9\\ 17\ 21\\ 13\ 9\\ 17\ 21\\ 18\\ 22\ 6\ 18\\ \end{array}$ | $\begin{array}{c} yds. \ ft. \\ 0 \ 8 \\ 0 \ 16 \\ 1 \ 6 \\ 1 \ 9 \\ 1 \ 9 \\ 1 \ 9 \\ 1 \ 0 \\ 2 \ 26 \\ 3 \ 15 \\ 4 \ 4 \\ 4 \ 20 \\ 5 \ 9 \\ 5 \ 25 \\ 6 \ 14 \\ 7 \ 3 \\ 7 \ 19 \\ 8 \ 8 \\ 8 \ 24 \\ 10 \ 2 \\ 10 \ 18 \\ 11 \ 23 \\ 10 \ 23 \\ 10 \ 12 \\ 23 \ 17 \\ 21 \\ 23 \ 17 \\ 21 \\ 23 \ 17 \\ 85 \ 15 \\ \end{array}$ | $\begin{array}{c} yds. ft.\\ 0 \ 10 \\ 0 \ 20 \\ 1 \ 13 \\ 2 \ 26 \\ 3 \ 19 \\ 2 \ 26 \\ 3 \ 19 \\ 5 \ 5 \\ 5 \ 5 \\ 5 \ 5 \\ 6 \ 18 \\ 7 \ 11 \\ 2 \\ 11 \\ 23 \\ 12 \ 16 \\ 11 \\ 23 \\ 12 \\ 16 \\ 22 \\ 14 \\ 22 \\ 6 \\ 29 \ 17 \\ 44 \\ 12 \end{array}$ |
| | Height 6 feet. | Height 7 feet. | Height 8 feet. | Height 9 feet. | Height 12 feet. | Height 15 feet. | Height 18 feet. | Height 21 feet. |
| Ft. 1 2 3 4 5 6 7 8 9 100 111 12 15 16 17 7 18 9 200 300 400 560 | $\begin{array}{c} yds. \ ft. \\ 0 \ 12 \\ 0 \ 24 \\ 1 \ 21 \\ 2 \ 18 \\ 1 \ 21 \\ 2 \ 18 \\ 15 \\ 4 \ 12 \\ 16 \\ 9 \\ 16 \\ 16 \\ 10 \\ 16 \\ 24 \\ 10 \\ 18 \\ 11 \\ 15 \\ 12 \\ 12 \\ 12 \\ 12 \\ 12 \\ 12$ | $\begin{array}{c} yds, ft.\\ 0 \ 14 \\ 1 \ 2 \ 3 \ 3 \\ 3 \ 4 \ 4 \\ 5 \ 5 \ 5 \\ 6 \ 6 \\ 7 \ 7 \ 8 \\ 9 \ 9 \\ 10 \ 10 \\ 10 \ 11 \\ 12 \ 12 \\ 13 \ 13 \\ 14 \ 15 \\ 16 \ 16 \\ 16 \ 16 \\ 17 \ 17 \\ 18 \ 18 \\ 19 \ 10 \ 20 \\ 20 \ 20 \\ 31 \ 3 \\ 51 \ 23 \\ 62 \ 6 \end{array}$ | $\begin{array}{c} yds, \ ft.\\ 0\ 16\\ 1\ 5\\ 2\ 10\\ 3\ 15\\ 4\ 20\\ 5\ 25\\ 7\ 3\\ 8\ 8\\ 9\ 13\\ 10\ 18\\ 11\ 28\\ 13\ 1\\ 14\ 6\ 16\\ 15\ 11\\ 16\ 16\\ 15\ 11\\ 16\ 16\\ 12\ 21\\ 18\ 26\\ 20\ 4\\ 21\ 9\\ 22\ 14\\ 23\ 19\\ 35\ 15\\ 15\\ 11\\ 59\ 7\\ 71\ 3\\ \end{array}$ | $\begin{array}{c} yds. \ ft. \\ 0 \ 18 \\ 1 \ 9 \\ 2 \ 18 \\ 4 \ 0 \\ 5 \ 9 \\ 6 \ 18 \\ 18 \\ 19 \\ 10 \ 18 \\ 12 \\ 0 \\ 13 \\ 9 \\ 9 \\ 9 \\ 10 \\ 18 \\ 12 \\ 0 \\ 13 \\ 9 \\ 14 \\ 18 \\ 16 \\ 0 \\ 17 \\ 9 \\ 18 \\ 18 \\ 18 \\ 12 \\ 0 \\ 21 \\ 18 \\ 18 \\ 22 \\ 18 \\ 24 \\ 0 \\ 25 \\ 19 \\ 25 \\ 18 \\ 24 \\ 0 \\ 25 \\ 18 \\ 26 \\ 18 \\ 80 \\ 0 \end{array}$ | $\begin{array}{c} yds. \ ft. \\ 0 \ 24 \\ 1 \ 21 \\ 1 \ 21 \\ 3 \ 15 \\ 5 \ 9 \\ 7 \ 3 \\ 8 \ 24 \\ 10 \ 18 \\ 12 \ 12 \\ 14 \ 6 \\ 16 \ 0 \\ 17 \ 21 \\ 19 \ 15 \\ 21 \ 9 \\ 23 \ 3 \\ 24 \ 24 \\ 28 \ 12 \\ 30 \ 6 \\ 32 \ 0 \\ 33 \ 21 \\ 35 \ 15 \\ 53 \ 9 \\ 71 \ 3 \\ 88 \ 24 \\ 106 \ 18 \\ \end{array}$ | $\begin{array}{c} yds. ft.\\ 1 & 3\\ 2 & 6\\ 4 & 12\\ 6 & 18\\ 8 & 24\\ 11 & 3\\ 13 & 9\\ 15 & 15\\ 17 & 21\\ 120 & 0\\ 220 & 6\\ 241 & 12\\ 266 & 18\\ 88 & 24\\ 411 & 3\\ 335 & 15\\ 537 & 21\\ 460 & 6\\ 44 & 12\\ 66 & 18\\ 88 & 94\\ 111 & 3\\ 133 & 9\\ \end{array}$ | $\begin{array}{c} {\bf yds. ft.}\\ {\bf 1} & 9\\ {\bf 2} & 188\\ {\bf 5} & 9\\ {\bf 8} & {\bf 5} & 9\\ {\bf 8} & {\bf 0} & 0\\ {\bf 10} & 18\\ {\bf 13} & 9\\ {\bf 16} & 0\\ {\bf 16} & 18\\ {\bf 13} & 9\\ {\bf 24} & 0\\ {\bf 26} & 18\\ {\bf 229} & 9\\ {\bf 32} & 0\\ {\bf 34} & 18\\ {\bf 37} & 9\\ {\bf 445} & 0\\ {\bf 45} & 18\\ {\bf 37} & 9\\ {\bf 460} & 0\\ {\bf 50} & 18\\ {\bf 53} & 9\\ {\bf 80} & 0\\ {\bf 50} & 18\\ {\bf 133} & 9\\ {\bf 160} & 0\\ \end{array}$ | $\begin{array}{c} y_{\rm ds.} ft. \\ 1 15 \\ 3 3 \\ 6 \\ 6 \\ 9 \\ 9 \\ 12 \\ 15 \\ 15 \\ 18 \\ 18 \\ 12 \\ 12 \\ 12 \\ 12 \\ 12 \\ 12$ |

TABLE IL-CUEIC CONTENT OF OBLONG STACKS.

| - | | | | | | | 24 | | |
|---|---|--|---|---|--|--|---|--|--|
| sth. | Breadth 5 feet. | | | | | | | | |
| I.en | Height 6 inches. | Height 1 foot. | Height 1 ft. 6in. | Height 2 feet. | Height 2 ft. 6 in. | Height 3 feet. | Height 4 feet. | Height 5 feet. | |
| Ft. 1234 5678 9011123451617789280 400 60 | $\begin{array}{c} {\rm yds.\ ft.}\\ 0 & 1\frac{1}{2}\\ 0 & 0 & 5\\ 0 & 10\\ 0 & 5\\ 0 & 10\frac{1}{2}\\ 0 & 20\frac{1}{2}\\ 0 & 20\frac{1}{2}\\ 1 & 0\frac{1}{2}\\ 1 & 0\frac{1}{2}\\ 1 & 10\frac{1}{2}\\ 1 & 10$ | $\begin{array}{c} yds. \ ft. \\ 0 \ \ 2k \\ 0 \ \ 10 \\ 0 \ \ 10 \\ 0 \ \ 20 \\ 0 \ \ 20 \\ 0 \ \ 20 \\ 1 \ \ 8 \\ 1 \ \ 20 \\ 1 \ \ 8 \\ 1 \ \ 20 \\ 1 \ \ 8 \\ 1 \ \ 20 \\ 1 \ \ 8 \\ 1 \ \ 20 \\ 1 \ \ 8 \\ 1 \ \ 20 \\ 1 \ \ 8 \\ 1 \ \ 20 \\ 1 \ \ 8 \\ 1 \ \ 20 \\ 1 \ \ 8 \\ 1 \ \ 20 \\ 1 \ \ 8 \\ 1 \ \ 20 \\ 1 \ \ 8 \\ 1 \ \ 20 \\ 1 \ \ 8 \\ 1 \ \ 8 \\ 1 \ \ 8 \\ 1 \ \ 8 \\ 1 \ \ 8 \\ 1 \ \ 8 \\ 1 \ \ 10 \\ 1 \ \ 8 \\ 1 \ \ 10 \ \ 10 \\ 1 \ \ 10 \ \ 10 \\ 1 \ \ 10 \ \ 10 \ \ 10 \\ 1 \ \ 10 \ \ \ 10 \ \ 10 \ \ 10 \ \ \ 10 \ \ 10 \ \ 10 \ \ \ 10 \ \ 10 \ $ | $\begin{array}{c} yds. ft;\\ 0 & 3\frac{3}{4} \\ 0 & 0 \\ 1 \\ 5 \\ 1 \\ 1 \\ 3 \\ 1 \\ 1 \\ 2 \\ 3 \\ 1 \\ 1 \\ 1 \\ 2 \\ 3 \\ 1 \\ 1 \\ 2 \\ 3 \\ 1 \\ 1 \\ 2 \\ 3 \\ 1 \\ 1 \\ 2 \\ 3 \\ 1 \\ 1 \\ 2 \\ 3 \\ 1 \\ 1 \\ 3 \\ 1 \\ 1 \\ 2 \\ 3 \\ 1 \\ 1 \\ 3 \\ 1 \\ 1 \\ 2 \\ 3 \\ 1 \\ 1 \\ 1 \\ 2 \\ 3 \\ 1 \\ 1 \\ 1 \\ 2 \\ 3 \\ 1 \\ 1 \\ 1 \\ 1 \\ 2 \\ 1 \\ 1 \\ 1 \\ 1 \\ 2 \\ 1 \\ 1$ | $\begin{array}{c} yds. \ ft. \\ 0 \ 5 \\ 0 \ 5 \\ 0 \ 20 \\ 1 \ 13 \\ 1 \ 23 \\ 2 \ 16 \ 16 \\ 2 \ 16 \ 16 \\ 2 \ 16 \ 16 \\ 2 \ 16 \ 16 \ 16 \\ 2 \ 16 \ 16 \ 16 \ 16 \ 16 \ 16 \ 16 \ $ | $\begin{array}{c} y_{\rm obs}({\rm ft}, {\rm ft}, {\rm obs}({\rm ft})) \\ 0 & 10^{4} \\ 0 & 10^{4} \\ 0 & 25 \\ 1 & 10^{4} \\ 2 & 21 \\ 3 & 6^{4} \\ 3 & 10^{4} \\ 4 & 17^{7} \\ 2^{5} \\ 5 & 15 \\ 6 \\ 13^{4} \\ 6 \\ 251 \\ 7 \\ 23^{5} \\ 18 \\ 14^{4} \\ 17^{7} \\ 23^{5} \\ 10^{4} \\ 13^{2} \\ 24 \\ 18 \\ 14 \\ 14^{2} \\ 14^{2} \\ 14^{2} \\ 13^{2} \\ 14^{2} \\$ | $\begin{array}{c} yds. \ ft; \\ 0 \ 17 \\ 1 \ 3 \\ 1 \ 3 \\ 2 \ 21 \\ 3 \\ 2 \ 21 \\ 3 \\ 4 \\ 12 \\ 5 \\ 1 \\ 3 \\ 2 \\ 21 \\ 1 \\ 3 \\ 2 \\ 21 \\ 1 \\ 3 \\ 2 \\ 21 \\ 1 \\ 3 \\ 2 \\ 2 \\ 1 \\ 1 \\ 1 \\ 3 \\ 2 \\ 2 \\ 1 \\ 1 \\ 1 \\ 3 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1$ | $\begin{array}{c} yds, ft.\\ 0 10\\ 0 20\\ 1 13\\ 2 66\\ 3 19\\ 4 12\\ 5 5\\ 5 25\\ 6 18\\ 7 11\\ 1 25\\ 5 25\\ 6 18\\ 7 11\\ 1 25\\ 1 25\\ 1 25\\ 1 25\\ 2 25\\ 1 12\\ 2 26\\ 1 12\\ 2 2\\ 1 23\\ 2 2\\ 2 2\\ 1 1\\ 2 2\\ 2 2$ | $\begin{array}{c} \textbf{yds. ft.} \\ 0 \ 12\frac{1}{2} \\ 0 \ 12\frac{1}{2} \\ 1 \ 23 \\ 2 \ 21 \\ 3 \ 19 \\ 4 \ 17 \\ 5 \ 6 \ 13 \\ 7 \ 11 \\ 8 \ 9 \\ 9 \ 7 \\ 11 \\ 12 \ 26 \\ 13 \ 24 \\ 14 \ 22 \\ 15 \ 20 \\ 16 \ 18 \\ 17 \ 16 \\ 18 \ 14 \\ 27 \ 21 \\ 37 \ 21 \\ 37 \ 15 \\ 15 \ 15 \\ \end{array}$ | |
| 17 | Height 6 feet. | Height 7 feet. | Height 8 feet. | Height 9 feet. | Height 12 feet. | Height 15 feet. | Height 18 feet. | Height 21 feet. | |
| Ft. 1234567890101121314516678900000000000000000000000000000000000 | $\begin{array}{c} yds.ft.\\ 0 \ 15\\ 1 \ 3\\ 2 \ 6\\ 3 \ 9\\ 4 \ 19\\ 5 \ 15\\ 6 \ 18\\ 7 \ 21\\ 8 \ 24\\ 10 \ 0\\ 11 \ 3\\ 21 \ 6\\ 13 \ 9\\ 14 \ 12\\ 15 \ 16\\ 15\\ 16 \ 16\\ 16 \ 16\\ 16 \ 16\\ 16 \ 16\\ 16 \ 16\\ 16 \ 16\ 16\\ 16 \ 16\ 16\\ 16 \ 16\ 16\\ 16 \ 16\ 16\ 16\\ 16 \ 16\ 16\ 16\ 16\ 16\ 16\ 16\ 16\ 16$ | $\begin{array}{c} yds. \ ft. \\ 0 \ 17\frac{k}{2} \\ 1 \\ 1 \\ 1 \\ 2 \\ 16 \\ 1 \\ 1 \\ 2 \\ 16 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ $ | $\begin{array}{c} yds. \ ft. \\ 0\ 20 \\ 1\ 13 \\ 2\ 26 \\ 4\ 12 \\ 5\ 25 \\ 7\ 11 \\ 8\ 24 \\ 10\ 10 \\ 11\ 23 \\ 13\ 9 \\ 14\ 22 \\ 16\ 8 \\ 17\ 21 \\ 19\ 7 \\ 20\ 20 \\ 22 \\ 6 \\ 23\ 19 \\ 22 \\ 6 \\ 18 \\ 28 \\ 4 \\ 17 \\ 20 \\ 22 \\ 6 \\ 18 \\ 28 \\ 17 \\ 21 \\ 7 \\ 73 \\ 2 \\ 88 \\ 24 \\ \end{array}$ | $\begin{array}{c} yds. \ ft. \\ 0 \ 22b \\ 118 \\ 1 \ 18 \\ 18 \\ 9 \\ 5 \ 0 \\ 6 \ 18 \\ 9 \\ 10 \ 0 \\ 6 \ 18 \\ 9 \\ 15 \ 0 \\ 11 \ 18 \\ 18 \\ 9 \\ 15 \ 0 \\ 16 \ 18 \\ 9 \\ 15 \ 0 \\ 16 \ 18 \\ 9 \\ 20 \ 0 \\ 25 \ 18 \\ 23 \ 9 \\ 25 \ 0 \\ 25 \ 18 \\ 23 \ 9 \\ 25 \ 0 \\ 25 \ 18 \\ 23 \ 9 \\ 25 \ 0 \\ 25 \ 18 \\ 23 \ 9 \\ 25 \ 0 \\ 25 \ 18 \\ 25 \ 0 \\ 25 \ 18 \\ 25 \ 0 \\ 25 \ 18 \\ 25 \ 0 \\ 25 \ 18 \\ 25 \ 0 \\ 25 \ 18 \\ 25 \ 0 \\ 25 \ 18 \\ 25 \ 0 \\ 25 \ 18 \\ 25 \ 0 \\ 25 \ 0 \\ 25 \ 18 \\ 25 \ 0 \\ 25 \ 0 \\ 25 \ 18 \\ 25 \ 0 \\ 25 \ 0 \\ 18 \\ 25 \ 0 \\ 25 \ 0 \\ 18 \\ 25 \ 0 \\ 25 \ 0 \\ 18 \\ 25 \ 0 \\ 25 \ 0 \\ 18 \\ 25 \ 0 \\ 25 \ 0 \\ 18 \\ 25 \ 0 \\ 25 \ 0 \\ 18 \\ 25 \ 0 \\ 25 \ 0 \\ 18 \\ 25 \ 0 \\ 18 \\ 25 \ 0 \\ 25 \ 0 \\ 18 \\ 25 \ 0 \\ 25 \ 0 \\ 18 \\ 25 \ 0 \\ 18 \\ 25 \ 0 \\ 25 \ 0 \\ 18 \\ 25 \ 0 \\ 18 \\ 25 \ 0 \\ 25 \ 0 \\ 18 \\ 25 \ 0 \\ 25 \ 0 \\ 18 \\ 25 \ 0 \\ 18 \\ 25 \ 0 \\ 25 \ 0 \\ 18 \\ 25 \ 0 \\ 18 \\ 25 \ 0 \\ 25 \ 0 \\ 18 \\ 25 \ 0 \\ 18 \\ 25 \ 0 \\ 18 \\ 25 \ 0 \\ 18 \\ 25 \ 0 \\ 18 \\ 25 \ 0 \\ 18 \\ 18 \\ 25 \ 0 \\ 18 \\ 18 \\ 18 \\ 25 \ 0 \\ 18 \\ 18 \\ 18 \\ 18 \\ 18 \\ 18 \\ 18 \\ $ | $\begin{array}{c} yds. ft.\\ 1 & 5\\ 2 & 6\\ 6 & 4\\ 12 & 6\\ 18 & 8\\ 24 & 13\\ 13 & 9\\ 15 & 15\\ 17 & 21\\ 20 & 0 & 6\\ 224 & 12\\ 28 & 24\\ 11 & 3\\ 33 & 9\\ 35 & 15\\ 537 & 21\\ 12 & 0\\ 44 & 12\\ 66 & 18\\ 44 & 12\\ 66 & 18\\ 113 & 9\\ 133 & 9\\ \end{array}$ | $\begin{array}{c} yds. \ ft.\\ 1 \ 101\\ state{1}{101}\\ state{1}$ | $\begin{array}{c} yds. ft.\\ 1 & 18\\ 9 & 6 & 18\\ 10 & 0 & 0\\ 13 & 9 & 16 & 18\\ 20 & 0 & 23 & 9\\ 26 & 18\\ 30 & 0 & 23\\ 26 & 18\\ 30 & 0 & 0\\ 336 & 18\\ 40 & 0 & 43\\ 40 & 0 & 43\\ 40 & 0 & 53\\ 40 & 0 & 0\\ 53 & 9 & 56\\ 18 & 60 & 0\\ 63 & 19\\ 66 & 18\\ 100 & 0\\ 133 & 9\\ 166 & 18\\ 200 & 0\\ \end{array}$ | $\begin{array}{c} yds. ft.\\ 1 & 252\\ 3 & 24\\ 7 & 21\\ 11 & 18\\ 15 & 15\\ 19 & 12\\ 23 & 9\\ 27 & 6\\ 38 & 24\\ 42 & 21\\ 46 & 18\\ 50 & 15\\ 54 & 12\\ 46 & 15\\ 54 & 12\\ 88 & 24\\ 46 & 18\\ 50 & 15\\ 54 & 12\\ 88 & 24\\ 46 & 18\\ 51 & 15\\ 15 & 15\\ 116 & 15\\ 116 & 15\\ 116 & 15\\ 123 & 12\\ 233 & 9\\ 233 $ | |
| TABLE | | OF OB | |
|-------|--|-------|--|
| | | | |

| 4 | - | | | Breadth | 6 feet. | | | |
|--|--|---|--|--|--|---|--|---|
| Lengt | Height 6 inches. | Height 1 foot. | Height 1 ft. 6 in. | Height 2 feet. | Height 2 ft. 6 in. | Height 3 feet. | Height 4 feet. | Height 5 feet. |
| Ft. 1 2 3 4 5 6 7 8 9 10 11 12 18 14 5 6 7 8 9 10 11 12 18 14 5 6 7 8 9 10 11 12 18 14 5 6 7 8 9 10 11 12 18 19 20 3 4 0 5 6 0 10 10 10 10 10 10 10 10 10 10 10 10 1 | $\begin{array}{c} y_0 s, \ ft. \\ y_0 & 1\frac{1}{2} \\ 0 & 0 \\ 0 & 0 \\ 0 & 12 \\ 0 & 18 \\ 0 & 21 \\ 1 & 3 \\ 0 & 21 \\ 1 & 18 \\ 1 & 121 \\ 1 & 24 \\ 0 & 2 \\ 0 & 9 \\ 2 & 3 \\ 0 & 9 \\ 2 & 3 \\ 0 & 9 \\ 2 & 3 \\ 1 & 15 \\ 1 & 121 \\ 1 & 24 \\ 0 & 2 \\ 3 & 6 \\ 1 & 15 \\ 1 & 121 \\ 1 & 24 \\ 0 & 2 \\ 3 & 6 \\ 1 & 15 \\ 1 $ | $\begin{array}{c} y_{\rm ds.} \ \ {\rm ft.} \\ y_{\rm d} \ \ {\rm s} \\ 0 \ \ {\rm s} \\ 0 \ \ {\rm ls} \\ 1 \ \ {\rm s} \\ 1 \ \ {\rm ls} \ \ {\rm ls} \\ 1 \ \ {\rm ls} \ \ {\rm ls} \\ 1 \ \ {\rm ls} \ \ \ {\rm ls} \ \ \ \$ | $\begin{array}{c} yds, \ fi.\\ 0 \ 4b \\ 0 \ 18 \\ 1 \ 0 \\ 2 \ 9 \\ 2 \ 18 \\ 1 \ 18 \\ 2 \ 9 \\ 2 \ 18 \\ 1 \ 18 \\ 2 \ 9 \\ 2 \ 18 \\ 3 \ 18 \\ 4 \ 0 \\ 4 \ 18 \\ 5 \ 9 \\ 5 \ 18 \\ 4 \ 0 \\ 4 \ 18 \\ 5 \ 9 \\ 5 \ 18 \\ 6 \ 9 \\ 10 \ 0 \\ 18 \\ 10 \ 0 \\ 18 \\ 10 \ 0 \\ 18 \\ 10 \ 0 \\ 18 \\ 10 \ 0 \\ 18 \\ 10 \ 0 \\ 16 \ 18 \\ 20 \ 0 \\ 16 \ 18 \\ 20 \ 0 \\ 16 \ 18 \\ 20 \ 0 \\ 10 \ 0 \\ 10 \ 0 \\ 10 \ 10 \\ 10 \ 0 \ 0 \\ 10 \ 0 \ 0 \\ 10 \ 0 \ 0 \ 0 \\ 10 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 $ | $\begin{array}{c} yds. \ ft. \\ 0 \ 6 \\ 0 \ 12 \\ 0 \ 24 \\ 1 \ 9 \\ 2 \ 18 \\ 2 \ 18 \\ 3 \ 3 \\ 15 \\ 1 \ 21 \\ 2 \ 18 \\ 3 \ 3 \\ 15 \\ 1 \ 21 \\ 2 \ 18 \\ 3 \ 3 \\ 15 \\ 1 \ 21 \\ 2 \\ 1 \ 21 \\ 2 \\ 1 \ 21 \\ 2 \\ 1 \ 21 \\ 2 \\ 1 \ 22 \\ 1 \ 21 \\ 2 \\ 2 \\ 2 \\ 1 \ 21 \\ 2 \\ 2 \\ 2 \\ 1 \ 21 \\ 2 \\ 2 \\ 2 \\ 1 \ 21 \\ 2 \\ 2 \\ 2 \\ 1 \ 18 \\ 1 \ 21 \\ 1 \ 21 \\ 2 \\ 2 \\ 2 \\ 1 \ 18 \\ 1 \ 10 \ 10$ | $\begin{array}{c} yds. \ the formula \ th$ | $\begin{array}{c} yds. \ ft. \\ 0 \ 9 \\ 0 \ 18 \\ 1 \ 9 \\ 2 \ 18 \\ 3 \ 9 \\ 4 \ 0 \\ 4 \ 18 \\ 6 \ 0 \\ 4 \ 18 \\ 6 \ 0 \\ 6 \ 18 \\ 9 \ 9 \\ 10 \ 18 \\ 11 \ 9 \\ 12 \ 0 \\ 12 \ 18 \\ 13 \ 9 \\ 12 \ 0 \\ 12 \ 18 \\ 13 \ 9 \\ 40 \ 0 \end{array}$ | $\begin{array}{c} yds. \ ft.\\ 0 \ 12\\ 0 \ 12\\ 1 \ 21\\ 2 \ 18\\ 1 \ 21\\ 2 \ 18\\ 1 \ 2 \ 18\\ 1 \ 2 \ 18\\ 1 \ 2 \ 18\\ 1 \ 2 \ 18\\ 1 \ 2 \ 18\\ 1 \ 2 \ 18\\ 1 \ 12\\ 1 \ 2 \ 18\\ 1 \ 12\\ 1 \ 2 \ 18\\ 1 \ 12\\ 1 \ 2 \ 18\\ 1 \ 12\\ 1 \ 2 \ 18\\ 1 \ 12\\ 1 \ 2 \ 18\\ 1 \ 12\\ 1 \ 2 \ 18\\ 1 \ 12\\ 1 \ 2 \ 18\\ 1 \ 12\\ 1 \ 2 \ 18\\ 1 \ 12\\ 1 \ 2 \ 18\\ 1 \ 12\\ 1 \ 2 \ 18\\ 1 \ 12\\ 1 \ 2 \ 18\\ 1 \ 12\\ 1 \ 2 \ 18\\ 1 \ 12\\ 1 \ 2 \ 18\\ 1 \ 12\\ 1 \ 2 \ 18\\ 1 \ 12\\ 1 \ 2 \ 18\\ 1 \ 12\\ 1 \ 2 \ 18\\ 1 \ 12\\ 1 \ 2 \ 18\\ 1 \ 12\\ 1 \ 2 \ 18\\ 1 \ 12\ 12\\ 1 \ 12\ 12\\ 1 \ 12\ 12\ 12\ 12\ 12\ 12\ 12\ 12\ 12\$ | $\begin{array}{c} yds. \ fc. \\ 0 \ 15 \\ 1 \ 3 \\ 9 \\ 4 \ 12 \\ 5 \\ 15 \\ 6 \\ 13 \\ 9 \\ 14 \\ 12 \\ 15 \\ 15 \\ 15 \\ 15 \\ 16 \\ 18 \\ 24 \\ 10 \\ 11 \\ 3 \\ 22 \\ 15 \\ 15 \\ 15 \\ 15 \\ 15 \\ 15 \\ 15$ |
| | Height 6 feet. | Height 7 feet. | Height 8 feet. | Height 9 feet. | Height 12 feet. | Height 15 feet. | Height 18 feet. | Height 21 feet. |
| Ft. 1 2 3 4 6 6 7 8 9 10 11 12 13 4 15 16 7 18 9 20 30 40 50 60 | $\begin{array}{c} yds. \ ft. \\ 0 \ 18 \\ 1 \ 9 \\ 2 \ 18 \\ 4 \ 0 \\ 5 \\ 9 \\ 9 \\ 18 \\ 18 \\ 19 \\ 0 \\ 13 \\ 10 \\ 18 \\ 12 \\ 0 \\ 13 \\ 18 \\ 10 \\ 18 \\ 18 \\ 16 \\ 0 \\ 11 \\ 9 \\ 18 \\ 18 \\ 18 \\ 10 \\ 21 \\ 9 \\ 22 \\ 18 \\ 24 \\ 0 \\ 0 \\ 25 \\ 9 \\ 26 \\ 18 \\ 40 \\ 0 \\ 5 \\ 9 \\ 26 \\ 18 \\ 40 \\ 0 \\ 5 \\ 9 \\ 26 \\ 18 \\ 40 \\ 0 \\ 5 \\ 9 \\ 26 \\ 18 \\ 40 \\ 0 \\ 5 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ $ | $\begin{array}{c} y_{\rm ds.} {\rm ft.} \\ y_{\rm 0} g_{\rm 1} \\ 1 15 \\ 1 15 \\ 3 8 \\ 4 18 \\ 6 6 \\ 7 21 \\ 9 9 \\ 9 10 94 \\ 12 12 \\ 14 10 \\ 15 15 \\ 17 3 \\ 18 18 \\ 17 3 \\ 18 18 \\ 17 3 \\ 18 18 \\ 9 20 6 \\ 9 13 \\ 20 16 \\ 17 3 \\ 18 18 \\ 20 6 \\ 10 29 \\ 10 2$ | $\begin{array}{c} y_{13}, ft. \\ 0.24 \\ 1.21 \\ 1.21 \\ 3.15 \\ 5.9 \\ 7.3 \\ 8.24 \\ 10.18 \\ 12.12 \\ 14.6 \\ 0 \\ 17.21 \\ 9 \\ 23.8 \\ 24.24 \\ 28.12 \\ 28.12 \\ 30.6 \\ 0 \\ 33.21 \\ 35.15 \\ 53.9 \\ 71.3 \\ 8.8 \\ 24.106 \\ 18 \\ 106.18 \\ \end{array}$ | $\begin{array}{c} {\bf yds. ft.}\\ {\bf 1} & 0 \\ {\bf 2} & 0 \\ {\bf 2} & 0 \\ {\bf 6} & 0 \\ {\bf 10} & 0 \\ {\bf 12} & 0 \\ {\bf 13} & 0 \\ {\bf 13} & 0 \\ {\bf 14} & 0 \\ {\bf 13} & 0 \\ {\bf 14} & 0 \\ {\bf 13} & 0 \\ {\bf 14} & 0 \\ {\bf 13} & 0 \\ {\bf 14} & 0 \\ {\bf 13} & 0 \\ {\bf 20} & 0 \\ {\bf 22} & 0 \\ {\bf 24} & 0 \\ {\bf 22} & 0 \\ {\bf 24} & 0 \\ {\bf 28} & 0 \\ {\bf 28} & 0 \\ {\bf 28} & 0 \\ {\bf 38} & 0 \\ {\bf 24} & 0 \\ {\bf 28} & 0 \\ {\bf 38} & 0 \\ {\bf 38} & 0 \\ {\bf 38} & 0 \\ {\bf 40} & 0 \\ {\bf 60} & 0 \\ {\bf 80} & 0 \\ {\bf 120} & 0 \\ \end{array}$ | $\begin{array}{c} yds. \ ft. \\ 1 \ 9 \\ 2 \ 188 \\ 8 \ 9 \\ 8 \ 9 \\ 13 \ 9 \\ 16 \ 0 \\ 16 \ 0 \\ 18 \ 18 \\ 13 \ 9 \\ 24 \ 0 \\ 26 \ 18 \\ 29 \ 9 \\ 21 \ 9 \\ 22 \ 9 \\ 22 \ 9 \\ 22 \ 9 \\ 22 \ 0 \\ 34 \ 18 \\ 37 \ 9 \\ 45 \ 0 \\ 45 \ 18 \\ 37 \ 9 \\ 46 \ 0 \\ 50 \ 18 \\ 53 \ 9 \\ 80 \ 0 \\ 100 \ 18 \\ 53 \ 9 \\ 80 \ 0 \\ 100 \ 13 \\ 9 \\ 160 \ 0 \\ \end{array}$ | $\begin{array}{c} yds. \ ft. \\ 1 \ 18 \\ 9 \ 6 \ 18 \\ 10 \ 0 \\ 13 \ 9 \\ 6 \ 18 \\ 10 \ 0 \\ 23 \ 9 \\ 9 \ 6 \ 18 \\ 50 \ 0 \\ 23 \ 9 \\ 96 \ 18 \\ 50 \ 0 \\ 26 \ 18 \\ 50 \ 0 \\ 9 \\ 66 \ 18 \\ 100 \ 0 \\ 66 \ 18 \\ 100 \ 0 \\ 133 \ 9 \\ 166 \ 18 \\ 200 \ 0 \\ 0 \\ 166 \ 18 \\ 200 \ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\$ | $\begin{array}{cccccccccccccccccccccccccccccccccccc$ | $\begin{array}{cccccccccccccccccccccccccccccccccccc$ |

TABLE II .- CUBIO CONTENT OF OBLONG STACKS.

| th. | | |] | Breadth | 7 feet. | | | |
|--|--|---|---|---|--|--|--|---|
| Leng | Height 6 inches. | Height 1 foot. | Height 1 ft. 6 in. | Height 2 feet. | Height 2ft.6in. | Height 3 feet. | Height 4 feet. | Height 5 feet. |
| Ft. 1 2 3 4 5 6 7 8 9 101 112 13 14 5 16 17 18 9 2 30 40 50 60 | $\begin{array}{c} \textbf{yds. ft.} \\ \textbf{yds. ft.} \\ \textbf{0} & \textbf{144} \\ \textbf{0} & \textbf{0} \\ \textbf{0} & \textbf{70} \\ \textbf{0} & \textbf{0} \\ \textbf{144} \\ \textbf{0} & \textbf{0} \\ \textbf{144} \\ \textbf{0} & \textbf{0} \\ \textbf{144} \\ \textbf{1814} \\ \textbf{1814}$ | $\begin{array}{c} yds. \ ft. \\ 0 \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \$ | $\begin{array}{c} yds. \ ft. \\ 0 \ 0 \ 5b_{2}^{+} \\ 0 \ 10^{+} \\ 0 \ 21^{+} \\ 1 \ 15^{+} \\ 1 \ 25b_{3}^{+} \\ 2 \ 19b_{3}^{+} \\ 3 \ 3 \ 24^{+} \\ 3 \ 3 \ 24^{+} \\ 4 \ 18^{+} \\ 5 \ 12^{+} \\ 5 \ 12^{+} \\ 5 \ 12^{+} \\ 5 \ 12^{+} \\ 5 \ 12^{+} \\ 11^{+} \\ 15^{+} \\ 15^{+} \\ 15^{+} \\ 11^{+} \\ 18^{+} \\ 15^{+} \\ 19^{+} \\ 12^{+} \\ 23^{+} \\ 9\end{array}$ | $\begin{array}{c} yds. \ ft.\\ 0 \ 14\\ 1 \ 1\\ 1 \ 2\\ 2 \ 16\\ 3 \ 3\\ 3 \ 17\\ 4 \ 4\\ 18\\ 5 \ 5\\ 19\\ 6 \ 6\\ 20\\ 29\\ 9\\ 23\\ 10\\ 15\\ 15\\ 20\\ 20\\ 20\\ 25\\ 21\\ 3\\ 3\end{array}$ | $\begin{array}{c} yds. ft \\ 0 & 8\frac{3}{4} \\ 0 & 17\frac{3}{4} \\ 1 & 8 \\ 1 & 26\frac{3}{4} \\ 1 & 14\frac{3}{4} \\ 5 & 5 \\ 2 & 2\frac{3}{4} \\ 4 & 14\frac{3}{4} \\ 5 & 5 \\ 2 & 2\frac{3}{4} \\ 1 & 14\frac{3}{4} \\ 1 & 16\frac{3}{4} \\ 1 & 11 \\ 18 \\ 26 \\ 25 \\ 22 \\ 11 \\ 38 \\ 24 \\ 1 \\ 38 \\ 24 \\ 1 \\ 1 \\ 38 \\ 24 \\ 1 \\ 1 \\ 1 \\ 26 \\ 25 \\ 21 \\ 1 \\ 38 \\ 24 \\ 1 \\ 1 \\ 1 \\ 26 \\ 25 \\ 21 \\ 1 \\ 38 \\ 24 \\ 1 \\ 1 \\ 1 \\ 1 \\ 26 \\ 25 \\ 21 \\ 1 \\ 38 \\ 24 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ $ | $\begin{array}{c} yds. \ ft. \\ 0 \ 10\frac{1}{2} \\ 0 \ 10\frac{1}{2} \\ 1 \ 15 \\ 2 \ 9 \\ 3 \ 3 \\ 3 \ 24 \\ 4 \ 18 \\ 5 \ 12 \\ 6 \\ 6 \\ 7 \ 0 \\ 7 \ 21 \\ 8 \ 15 \\ 12 \\ 12 \\ 12 \\ 12 \\ 12 \\ 12 \\ 12 \\$ | $\begin{array}{c} yds. \ ft.\\ 0 \ 14\\ 1 \ 2 \ 2\\ 3 \ 3\\ 4 \ 4\\ 5 \ 5\\ 6 \ 6\\ 7 \ 7\\ 8\\ 9 \ 9\\ 10 \ 10\\ 11 \ 11\\ 12 \ 12\\ 12\\ 13\\ 14 \ 14\\ 15\\ 16 \ 16\\ 16 \ 16\\ 17 \ 17\\ 18\\ 19 \ 19\\ 9\\ 20\\ 20\\ 31\ 3\\ 41\\ 13\\ 51\ 23\\ 62\ 6\end{array}$ | $\begin{array}{c} yds, ft;\\ 0 & 17\frac{3}{2}\\ 2 & 16\\ 3 & 24\\ 5 & 5\\ 6 & 13\\ 2 & 26\\ 3 & 24\\ 5 & 6\\ 13 & 24\\ 3 & 24\\ 19 & 20\\ 11 & 18\\ 14 & 7\\ 15 & 15\\ 16 & 23\\ 18 & 4\\ 19 & 12\\ 22 & 1\\ 14 & 7\\ 15 & 16\\ 23 & 18\\ 4 & 4\\ 19 & 12\\ 22 & 1\\ 23 & 9\\ 24 & 17\\ 5 & 38 & 24\\ 38 $ |
| | Height 6 feet. | Height 7 feet. | Height 8 feet. | Height 9 feet. | Height 12 feet. | Height 15 feet. | Height 18 feet. | Height 21 feet. |
| F-122345678901112134451677892004000 | $\begin{array}{c} yds. \ ft. \\ 0 \ 21 \\ 1 \ 15 \\ 8 \ 3 \\ 4 \ 18 \\ 6 \ 6 \\ 7 \ 21 \\ 9 \ 9 \\ 10 \ 24 \\ 12 \ 12 \\ 14 \ 0 \\ 16 \ 16 \\ 18 \\ 18 \\ 18 \\ 18 \\ 18 \\ 18 \\ 18 \\$ | $\begin{array}{c} yds. \ ft. \\ 0 \ 244 \\ 1 \ 2 \ 3 \ 17 \\ 5 \ 12 \\ 12 \ 19 \\ 14 \ 14 \\ 16 \ 9 \\ 12 \ 19 \\ 14 \ 16 \\ 9 \\ 12 \ 19 \\ 14 \ 16 \\ 9 \\ 12 \ 21 \\ 23 \ 16 \\ 25 \ 11 \\ 25 \ 11 \\ 25 \ 11 \\ 25 \ 11 \\ 27 \ 6 \\ 29 \ 13 \\ 30 \ 23 \\ 34 \ 18 \\ 34 \ 18 \\ 34 \ 18 \\ 34 \ 12 \\ 72 \ 16 \\ 90 \ 20 \\ 108 \ 24 \\ \end{array}$ | $\begin{array}{c} \mbox{yds. ft.} \\ 1 \ 1 \ 2 \ 2 \\ 2 \ 2 \\ 4 \ 4 \\ 6 \ 6 \\ 8 \\ 8 \\ 10 \ 10 \\ 12 \ 12 \\ 14 \ 16 \\ 16 \\ 16 \\ 18 \\ 12 \\ 20 \\ 20 \\ 22 \\ 22 \\ 24 \\ 24 \\ 26 \\ 26 \\ 29 \\ 1 \\ 33 \\ 5 \\ 35 \\ 7 \\ 11 \\ 41 \\ 13 \\ 62 \\ 6 \\ 26 \\ 103 \\ 19 \\ 124 \\ 12 \\ 12 \\ 12 \\ 12 \\ 12 \\ 12 \\ 1$ | $\begin{array}{c} yds. ft.\\ 1 & 4k\\ 2 & 9\\ 4 & 18\\ 7 & 0\\ 9 & 9\\ 11 & 18\\ 14 & 0\\ 16 & 9\\ 18 & 18\\ 21 & 0\\ 23 & 9\\ 23 & 18\\ 28 & 0\\ 23 & 25\\ 18\\ 28 & 0\\ 32 & 58\\ 28 & 0\\ 32 & 9\\ 32 & 18\\ 28 & 0\\ 33 & 9\\ 32 & 18\\ 28 & 0\\ 37 & 9\\ 32 & 18\\ 28 & 0\\ 44 & 9\\ 44 & 18\\ 46 & 18\\ 70 & 0\\ 93 & 9\\ 116 & 18\\ 140 & 0\\ \end{array}$ | $\begin{array}{c} yds, ft. \\ 1 15 \\ 3 3 \\ 6 9 \\ 9 \\ 12 12 \\ 15 15 \\ 18 \ 18 \\ 21 21 \\ 24 \ 24 \\ 28 \\ 0 \\ 31 \\ 31 \\ 31 \\ 40 \\ 12 \\ 43 \\ 15 \\ 46 \\ 18 \\ 15 \\ 46 \\ 18 \\ 15 \\ 22 \\ 24 \\ 24 \\ 28 \\ 0 \\ 31 \\ 31 \\ 52 \\ 24 \\ 24 \\ 28 \\ 0 \\ 31 \\ 31 \\ 52 \\ 24 \\ 24 \\ 28 \\ 0 \\ 31 \\ 31 \\ 52 \\ 24 \\ 28 \\ 0 \\ 31 \\ 31 \\ 52 \\ 24 \\ 24 \\ 28 \\ 0 \\ 31 \\ 31 \\ 52 \\ 24 \\ 21 \\ 15 \\ 15 \\ 18 \\ 18 \\ 18 \\ 18 \\ 18 \\ 1$ | $\begin{array}{c} {\rm yds.\ ft.}\\ {\rm 1\ 253}\\ {\rm 3.24}\\ {\rm 7\ 21}\\ {\rm 11\ 15\ 15}\\ {\rm 19\ 12\ 9}\\ {\rm 23\ 9}\\ {\rm 27\ 6}\\ {\rm 31\ 3}\\ {\rm 35\ 0}\\ {\rm 446\ 18}\\ {\rm 50\ 15}\\ {\rm 54\ 12\ 9}\\ {\rm 62\ 6}\\ {\rm 66\ 8}\\ {\rm 66\ 8}\\ {\rm 73\ 24}\\ {\rm 116\ 18}\\ {\rm 155\ 15}\\ {\rm 194\ 12}\\ {\rm 233\ 9}\\ \end{array}$ | $\begin{array}{c} yds. \text{ ft.}\\ 2 & 9\\ 4 & 18\\ 9 & 9\\ 14 & 0\\ 18 & 18\\ 23 & 9\\ 28 & 0\\ 32 & 18\\ 32 & 18\\ 32 & 18\\ 32 & 18\\ 32 & 18\\ 32 & 18\\ 37 & 9\\ 42 & 0\\ 46 & 18\\ 56 & 0\\ 60 & 18\\ 56 & 0\\ 74 & 18\\ 79 & 9\\ 79 & 0\\ 88 & 18\\ 93 & 9\\ 28 & 0\\ 140 & 0\\ 186 & 18\\ 233 & 9\\ 280 & 0\\ \end{array}$ | $\begin{array}{c} \textbf{yds. ft.}\\ \textbf{y} & \textbf{19}\\ \textbf{y} & \textbf{19}\\ \textbf{10} & \textbf{24}\\ \textbf{16} & \textbf{9}\\ \textbf{21} & \textbf{21}\\ \textbf{27} & \textbf{68}\\ \textbf{32} & \textbf{18}\\ \textbf{32} & \textbf{18}\\ \textbf{33} & \textbf{34}\\ \textbf{43} & \textbf{16}\\ \textbf{49} & \textbf{10}\\ \textbf{54} & \textbf{12}\\ \textbf{56} & \textbf{24}\\ \textbf{65} & \textbf{91}\\ \textbf{76} & \textbf{21}\\ \textbf{76} & \textbf{68}\\ \textbf{87} & \textbf{3}\\ \textbf{98} & \textbf{108}\\ \textbf{24} & \textbf{92}\\ \textbf{163} & \textbf{92}\\ \textbf{108} & \textbf{24}\\ \textbf{163} & \textbf{91}\\ \textbf{217} & \textbf{21}\\ \textbf{217} & \textbf{6}\\ \textbf{826} & \textbf{18} \end{array}$ |

TABLE II .- CUBIC CONTENT OF OBLONG STACKS.

| -H | | |] | Breadth | 8 feet. | | | |
|---|---|--|---|--|---|---|--|---|
| Leng | Height 6 inches. | Height 1 foot. | Height 1 ft. 6 in. | Height 2 feet. | Height 2 ft. 6 in. | Height 3 feet. | Height 4 feet. | Height 5 feet. |
| Ft. 1 2 3 4 5 6 7 8 9 10 11 12 13 14 5 16 17 18 9 20 40 60 | $\begin{array}{c} y ds. \ ft. \\ 0 \ 2 \\ 0 \ 4 \\ 0 \ 8 \\ 0 \ 18 \\ 0 \ 18 \\ 0 \ 20 \\ 1 \ 1 \\ 1 \ 5 \\ 2 \\ 2 \\ 1 \\ 1 \\ 1 \\ 2 \\ 2 \\ 2 \\ 1 \\ 1$ | $\begin{array}{c} yds. ft.\\ 0 & 4\\ 0 & 8\\ 0 & 16\\ 0 & 24\\ 1 & 13\\ 1 & 2\\ 2 & 2\\ 1 & 2\\ 2 & 10\\ 2 & 26\\ 2 & 26\\ 2 & 26\\ 2 & 26\\ 3 & 15\\ 3 & 23\\ 4 & 4\\ 4 & 20\\ 5 & 1\\ 1 & 23\\ 1 & 22\\ 17 & 21\\ \end{array}$ | $\begin{array}{c} yds. \ ft. \\ 0 \ 6 \\ 0 \ 12 \\ 0 \ 24 \\ 1 \ 9 \\ 1 \ 21 \\ 2 \ 6 \\ 3 \ 3 \\ 3 \ 15 \\ 3 \ 3 \\ 15 \\ 6 \\ 6 \\ 18 \\ 7 \\ 15 \\ 8 \\ 24 \\ 6 \\ 8 \\ 24 \\ 8 \\ 24 \\ 8 \\ 24 \\ 8 \\ 24 \\ 8 \\ 24 \\ 8 \\ 24 \\ 8 \\ 22 \\ 6 \\ 18 \\ 17 \\ 21 \\ 22 \\ 6 \\ 18 \\ 17 \\ 21 \\ 22 \\ 6 \\ 18 \\ 17 \\ 21 \\ 22 \\ 6 \\ 18 \\ 17 \\ 21 \\ 22 \\ 6 \\ 18 \\ 10 \\ 10 \\ 10 \\ 10 \\ 10 \\ 10 \\ 10$ | $\begin{array}{c} yds. \ ft. \\ 0 \ 8 \\ 0 \ 16 \\ 1 \ 5 \\ 1 \ 21 \\ 2 \ 10 \\ 2 \ 26 \\ 3 \ 16 \\ 4 \ 4 \\ 20 \\ 5 \ 25 \\ 16 \\ 16 \\ 7 \ 18 \\ 8 \\ 9 \\ 13 \\ 10 \ 18 \\ 11 \ 7 \\ 11 \\ 23 \\ 10 \\ 11 \ 7 \\ 11 \\ 23 \\ 15 \\ 15 \\ 15 \\ 15 \\ 15 \\ 15 \\ 15 \\ 1$ | $\begin{array}{c} yds. ft. \\ 0 \ 10 \\ 0 \ 20 \\ 1 \ 33 \\ 2 \ 66 \\ 3 \ 19 \\ 4 \ 5 \\ 5 \ 5 \\ 5 \ 5 \\ 5 \ 5 \\ 6 \ 18 \\ 7 \ 11 \\ 23 \\ 11 \ 23 \\ 12 \ 16 \\ 13 \ 9 \\ 14 \ 23 \\ 22 \ 6 \\ 29 \ 17 \\ 44 \ 12 \\ \end{array}$ | $\begin{array}{c} yds, \ ft, \\ 0 \ 12 \\ 0 \ 24 \\ 0 \ 24 \\ 1 \ 21 \\ 2 \ 18 \\ 3 \ 15 \\ 4 \ 12 \\ 9 \\ 6 \ 6 \\ 7 \\ 8 \ 24 \\ 10 \ 18 \\ 11 \ 15 \\ 12 \ 13 \\ 13 \ 9 \\ 14 \ 6 \\ 15 \ 3 \\ 16 \ 0 \\ 16 \ 24 \\ 17 \ 21 \\ 26 \ 18 \\ 55 \ 15 \\ 53 \ 9 \end{array}$ | $\begin{array}{c} yds. \ ft. \\ 0 \ 16 \\ 1 \ 5 \\ 2 \ 10 \\ 3 \ 15 \\ 10 \\ 5 \ 25 \\ 7 \ 3 \\ 8 \\ 9 \\ 10 \\ 18 \\ 11 \\ 23 \\ 10 \\ 18 \\ 20 \\ 4 \\ 17 \\ 21 \\ 18 \\ 26 \\ 20 \\ 4 \\ 23 \\ 19 \\ 22 \\ 14 \\ 23 \\ 19 \\ 22 \\ 14 \\ 23 \\ 19 \\ 22 \\ 14 \\ 23 \\ 19 \\ 17 \\ 13 \\ 10 \\ 18 \\ 10 \\ 18 \\ 10 \\ 18 \\ 20 \\ 4 \\ 21 \\ 9 \\ 22 \\ 14 \\ 23 \\ 19 \\ 17 \\ 17 \\ 3 \\ 10 \\ 18 \\ 10 \\ 10 \\ 10 \\ 10 \\ 10 \\ 10$ | $\begin{array}{c} yds. \ ft. \\ 0\ 200 \\ 1\ 13 \\ 2\ 26 \\ 4\ 125 \\ 7\ 11 \\ 125 \\ 7\ 11 \\ 125 \\ 7\ 11 \\ 120 \\ 20 \\ 220 \\ 220 \\ 223 \\ 19 \\ 225 \\ 19 \\ 223 \\ 19 \\ 225 \\ 19 \\ 225 \\ 19 \\ 225 \\ 19 \\ 225 \\ 19 \\ 225 \\ 10 \\ 10 \\ 10 \\ 10 \\ 10 \\ 10 \\ 10 \\ 1$ |
| | Height 6 feet. | Height 7 feet. | Height 8 feet. | Height 9 feet. | Height 12 feet. | Height 15 feet. | Height 18 feet. | Height 21 feet. |
| $\begin{array}{c} {\rm Ft.} \frac{1}{2} \\ {\rm S} \\ {\rm S} \\ {\rm 4} \\ {\rm 5} \\ {\rm 6} \\ {\rm 7} \\ {\rm 9} \\ {\rm 9} \\ {\rm 10} \\ {\rm 112} \\ {\rm 13} \\ {\rm 14} \\ {\rm 16} \\ {\rm 16} \\ {\rm 17} \\ {\rm 18} \\ {\rm 19} \\ {\rm 30} \\ {\rm 40} \\ {\rm 60} \end{array}$ | $\begin{array}{c} {\rm yds.\ ft.}\\ 0\ 24\\ 1\ 2\\ 3\ 15\\ 6\ 7\ 3\\ 8\ 24\\ 10\ 18\\ 12\ 12\\ 14\ 6\\ 16\ 0\\ 17\ 21\\ 12\ 12\\ 14\ 23\ 3\\ 24\ 24\\ 26\ 13\\ 22\ 12\\ 30\ 6\\ 33\ 21\\ 35\ 3\ 9\\ 71\ 3\\ 53\ 9\\ 71\ 3\\ 88\ 24\\ 106\ 18\\ \end{array}$ | $\begin{array}{c} yds. ft. \\ 1 & 1 \\ 2 & 2 \\ 4 & 4 \\ 6 & 6 \\ 8 & 8 \\ 10 & 10 \\ 12 & 12 \\ 14 & 16 \\ 16 & 18 \\ 12 & 12 \\ 14 & 14 \\ 16 & 16 \\ 18 & 18 \\ 20 & 20 \\ 22 & 22 \\ 24 & 24 \\ 26 & 26 \\ 29 & 1 \\ 33 & 5 \\ 35 & 7 \\ 9 & 39 & 11 \\ 41 & 13 \\ 63 & 6 \\ 82 & 26 \\ 103 & 19 \\ 124 & 12 \\ \end{array}$ | $\begin{array}{c} {\rm yds.\ ft.}\\ 1 & 5\\ 2 & 10\\ 4 & 20\\ 7 & 3\\ 9 & 13\\ 11 & 23\\ 14 & 6\\ 16 & 16\\ 18 & 26\\ 21 & 9\\ 23 & 19\\ 23 & 19\\ 23 & 19\\ 23 & 19\\ 23 & 19\\ 23 & 12\\ 33 & 5\\ 35 & 12\\ 37 & 25\\ 40 & 8\\ 45 & 11\\ 71 & 3\\ 94 & 23\\ 118 & 14\\ 142 & 6\\ \end{array}$ | $\begin{array}{c} yds, ft. \\ 1 & 9 \\ 9 & 18 \\ 5 & 9 \\ 8 & 0 \\ 10 & 18 \\ 13 & 9 \\ 16 & 0 \\ 18 & 18 \\ 9 & 24 \\ 0 \\ 25 & 18 \\ 18 & 18 \\ 29 & 9 \\ 24 & 0 \\ 25 & 18 \\ 37 & 9 \\ 40 & 0 \\ 25 & 18 \\ 37 & 9 \\ 42 & 18 \\ 45 & 9 \\ 48 & 0 \\ 50 & 18 \\ 53 & 9 \\ 80 & 0 \\ 106 & 18 \\ 133 & 9 \\ 160 & 0 \end{array}$ | $\begin{array}{c} yds. \ ft. \\ 1\ 21 \\ 3\ 15 \\ 7\ 3\ 15 \\ 10\ 18 \\ 14\ 6 \\ 17\ 21 \\ 28\ 12 \\ 28\ 12 \\ 28\ 28\ 28 \\ 28\ 28\ 28 \\ 28\ 28\ 28 \\ 28\ 28\ 28 \\ 28\ 28\ 28 \\ 28\ 28\ 28\ 28 \\ 28\ 28\ 28\ 28 \\ 28\ 28\ 28\ 28\ 28\ 28\ 28\ 28\ 28\ 28\$ | $\begin{array}{c} yds. ft.\\ 2 & 6\\ 4 & 12\\ 8 & 24\\ 13 & 9\\ 22 & 6\\ 81 & 3\\ 35 & 15\\ 26 & 18\\ 31 & 3\\ 35 & 15\\ 35 & 15\\ 64 & 18\\ 66 & 18\\ 71 & 3\\ 75 & 15\\ 66 & 66\\ 66 & 18\\ 133 & 9\\ 177 & 21\\ 222 & 6\\ 266 & 18\\ \end{array}$ | $\begin{array}{c} yds, ft. \\ 2 18 \\ 5 9 \\ 10 18 \\ 16 0 \\ 21 9 \\ 26 18 \\ 32 0 \\ 37 9 \\ 42 18 \\ 32 0 \\ 37 9 \\ 42 18 \\ 64 0 \\ 53 18 \\ 64 0 \\ 53 18 \\ 64 0 \\ 69 9 \\ 74 18 \\ 80 0 \\ 85 9 \\ 74 18 \\ 80 0 \\ 101 9 \\ 106 18 \\ 96 0 \\ 101 9 \\ 106 18 \\ 320 0 \\ \end{array}$ | $\begin{array}{c} yds. \ ft_{*}\\ 3 \ 3 \ 6 \ 6\\ 12 \ 13 \ 13\\ 8 \ 18\\ 18 \ 18\\ 37 \ 9\\ 43 \ 15\\ 49 \ 21\\ 62 \ 68\\ 12\\ 49 \ 21\\ 15\\ 80 \ 24\\ 87 \ 3\\ 99 \ 15\\ 105 \ 21\\ 112 \ 0\\ 112 \ 6\\ 124 \ 12\\ 186 \ 18\\ 248 \ 24\\ 377 \ 9\\ 91 \ 5\\ 112 \ 3\\ 377 \ 9\\ 9\end{array}$ |

TABLE II .- CUBIC CONTENT OF OBLONG STACKS.

| d | | | | Breadth | 9 feet. | - | | |
|---|---|---|---|--|---|---|--|--|
| Lengt | Height 6 inches. | Height 1 foot. | Height 1 ft. 6 in. | Height 2 feet. | Height 2 ft. 6 in. | Height 3 feet. | Height 4 feet. | Height 5 feet. |
| Ft. 12334567891011123134151661789200400 | $\begin{array}{c} yds, \ ft, \\ yds, \ ft, \\ 0 \ 4s, \\ 0 \ 9s, \\ 0 \ 13s, \\ 1 \ 18s, \\ 1 $ | $\begin{array}{c} yds. \ ft. \\ 0 \ 4^{3}_{2} \\ 0 \ 9 \\ 0 \ 18 \\ 1 \ 0 \\ 1 \ 9 \\ 1 \ 18 \\ 2 \ 9 \\ 2 \ 9 \\ 2 \ 18 \\ 3 \ 18 \\ 4 \ 0 \\ 4 \ 18 \\ 5 \ 0 \\ 6 \ 9 \\ 5 \ 18 \\ 10 \ 0 \\ 13 \ 9 \\ 16 \ 18 \\ 20 \ 0 \end{array}$ | $\begin{array}{c} yds. \ ft.\\ 0 \ 6\frac{3}{4}\\ 1 \ 0 \\ 1 \ 0 \\ 2 \ 18\frac{1}{4}\\ 3 \ 0 \\ 2 \ 18\frac{1}{4}\\ 5 \ 0 \\ 3 \ 18\frac{1}{4}\\ 4 \ 13\frac{1}{4}\\ 5 \ 0 \\ 18\frac{1}{4}\\ 6 \ 13\frac{1}{4}\\ 6 \ 13\frac{1}{4}\\ 6 \ 13\frac{1}{4}\\ 13\frac{1}{4}\\ 5 \ 0 \\ 9 \ 13\frac{1}{4}\\ 10 \ 0 \\ 20 \ 0 \\ 20 \ 0 \\ 80 \ 0 \end{array}$ | $\begin{array}{c} yds. \ ft.\\ 0 \ 9 \\ 0 \ 18 \\ 1 \ 9 \\ 2 \ 18 \\ 3 \ 9 \\ 4 \ 0 \\ 4 \ 18 \\ 5 \ 9 \\ 6 \ 0 \\ 6 \ 18 \\ 9 \\ 9 \\ 10 \ 18 \\ 11 \ 9 \\ 12 \ 0 \\ 12 \ 18 \\ 13 \ 9 \\ 26 \ 18 \\ 33 \ 9 \\ 40 \ 0 \end{array}$ | $\begin{array}{c} yds. \ ft. \\ 0 \ 11\frac{1}{2} \\ 0 \ 11\frac{1}{2} \\ 1 \ 18 \\ 2 \ 19\frac{1}{2} \\ 3 \ 9 \\ 4 \ 4\frac{1}{2} \\ 5 \ 0 \\ 5 \ 22\frac{1}{2} \\ 8 \ 9 \\ 4\frac{1}{2} \\ 10 \ 20 \\ 11 \ 18 \\ 12 \ 19\frac{1}{2} \\ 11 \ 18 \\ 12 \ 13\frac{1}{2} \\ 11 \ 18 \ 10 \ 10 \ 10 \ 10 \ 10 \ 10 \$ | $\begin{array}{cccccccc} yds. & ft. \\ 0 & 13\frac{3}{7} \\ 2 & 0 \\ 3 & 0 \\ 4 & 0 \\ 5 & 0 \\ 6 & 0 \\ 7 & 0 \\ 9 & 0 \\ 10 & 0 \\ 11 & 0 \\ 11 & 0 \\ 12 & 0 \\ 10 & 0 \\ 12 & 0 \\ 11 & 0 \\ 11 & 0 \\ 12 & 0 \\ 11 & 0 \\ 12 & 0 \\ 11 & 0 \\ 12 & 0 \\ 10 & 0 \\ 20 & 0 \\ 30 & 0 \\ 40 & 0 \\ 50 & 0 \\ 60 & 0 \\ \end{array}$ | $\begin{array}{c} yds. \ ft. \\ 0 \ 18 \\ 1 \\ 0 \ 18 \\ 1 \\ 1 \\ 18 \\ 18 \\ 18 \\ 10 \\ 10 \\ 1$ | $\begin{array}{c} yds. \ ft. \\ 0 \ 22\frac{1}{2} \\ 1 \\ 3 \ 9 \\ 6 \ 18 \\ 8 \ 9 \\ 10 \ 0 \\ 11 \ 18 \\ 13 \ 9 \\ 15 \ 0 \\ 16 \ 18 \\ 9 \\ 15 \ 0 \\ 16 \ 18 \\ 9 \\ 15 \ 0 \\ 16 \ 18 \\ 9 \\ 20 \ 0 \\ 26 \ 18 \\ 9 \\ 20 \ 0 \\ 26 \ 18 \\ 9 \\ 20 \ 0 \\ 26 \ 18 \\ 9 \\ 20 \ 0 \\ 26 \ 18 \\ 9 \\ 20 \ 0 \\ 26 \ 18 \\ 9 \\ 20 \ 0 \\ 26 \ 18 \\ 9 \\ 20 \ 0 \\ 26 \ 18 \\ 9 \\ 20 \ 0 \\ 26 \ 18 \\ 9 \\ 20 \ 0 \\ 26 \ 18 \\ 9 \\ 20 \ 0 \\ 26 \ 18 \\ 9 \\ 20 \ 0 \\ 26 \ 18 \\ 9 \\ 20 \ 0 \\ 26 \ 18 \\ 9 \\ 20 \ 0 \\ 26 \ 18 \\ 9 \\ 10 \ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ $ |
| | Height 6 feet. | Height 7 feet. | Height 8 feet. | Height 9 feet. | Height 12 feet. | Height 15 feet. | Height 18 feet. | Height 21 feet. |
| Ft. 1 2 8 4 5 6 7 8 9 10 11 12 18 4 15 16 7 18 9 20 8 0 4 5 0 6 0 | $\begin{array}{cccccccccccccccccccccccccccccccccccc$ | $\begin{array}{c} yds. \ ft. \\ yds. \ ft. \\ yds. \\ 1 \\ y \\ 9 \\ 9 \\ 11 \\ 18 \\ 14 \\ 0 \\ 16 \\ 9 \\ 14 \\ 18 \\ 18 \\ 18 \\ 18 \\ 18 \\ 18 \\ 18$ | $\begin{array}{c} yds. \ ft. \\ 1 \ 9 \\ 2 \ 18 \\ 5 \ 9 \\ 8 \ 0 \\ 10 \ 18 \\ 13 \ 9 \\ 16 \ 0 \\ 18 \ 18 \\ 21 \ 9 \\ 24 \ 18 \\ 25 \ 9 \\ 24 \ 18 \\ 45 \ 9 \\ 32 \ 10 \\ 42 \ 18 \\ 45 \ 9 \\ 45 \ 18 \\ 37 \ 9 \\ 46 \ 18 \\ 53 \ 9 \\ 50 \ 18 \\ 53 \ 9 \\ 80 \ 0 \\ 50 \ 18 \\ 133 \ 9 \\ 160 \ 0 \\ 160 \ 0 \\ \end{array}$ | $\begin{array}{c} yds. \ ft. \\ 1\ 13\frac{1}{3}\\ 3\ 0 \\ 6\ 0 \\ 9\ 0 \\ 12\ 0 \\ 12\ 0 \\ 24\ 0 \\ 27\ 0 \\ 27\ 0 \\ 27\ 0 \\ 27\ 0 \\ 26\ 0 \\ 27\ 0 \\ 26\ 0 \\ 57\ 0 \\ 60\ 0 \\ 51\ 0 \\ 51\ 0 \\ 51\ 0 \\ 51\ 0 \\ 180\ 0 \\ $ | $\begin{array}{cccccccccccccccccccccccccccccccccccc$ | $\begin{array}{c} yds, \ ft, \\ 2\ 13k \\ 0 \\ 0 \\ 10 \\ 0 \\ 10 \\ 0 \\ 10 \\ 0 \\ 10 \\ 0 \\ $ | $\begin{array}{cccccccc} yds, & ft. \\ 8 & 0 \\ 6 & 0 \\ 12 & 0 \\ 12 & 0 \\ 12 & 0 \\ 12 & 0 \\ 12 & 0 \\ 30 & 0 \\ 36 & 0 \\ 42 & 0 \\ 42 & 0 \\ 44 & 0 \\ 54 & 0 \\ 60 & 0 \\ 54 & 0 \\ 60 & 0 \\ 54 & 0 \\ 72 & 0 \\ 73 & 0 \\ 73 & 0 \\ 73 & 0 \\ 73 & 0 \\ 73 & 0 \\ 73 & 0 \\ 73 & 0 \\ 73 & 0 \\ 73 & 0 \\ 74 & 0 \\ 74 & 0 \\ 120 & 0 \\ 108 & 0 \\ 114 & 0 \\ 120 & 0 \\ 120 & 0 \\ 120 & 0 \\ 120 & 0 \\ 380 & 0 \\ 380 & 0 \\ \end{array}$ | $\begin{array}{c} y_{ds.} ft, \\ s 13k \\ 7 0 \\ 14 0 \\ 21 0 \\ 28 0 \\ 42 0 \\ 42 0 \\ 42 0 \\ 56 0 \\ 63 0 \\ 77 0 \\ 77 0 \\ 77 0 \\ 98 0 \\ 91 0 \\ 98 0 \\ 105 0 \\ 119 0 \\ 126 0 \\ 119 0 \\ 126 0 \\ 119 0 \\ 126 0 \\ 126 0 \\ 350 0 \\ 420 0 \\ 420 0 \\ \end{array}$ |

| | | _ | | | | | | |
|---|---|---|---|--|--|--|---|--|
| gth. | | | I | Breadth | 12 feet. | | | |
| Leng | Height 6 inches. | Height 1 foot. | Height 1ft.6in. | Height 2 feet. | Height 2 ft. 6 in. | Height 3 feet. | Height 4 feet. | Height 5 feet. |
| Ft. 1 2 3 4 5 6 7 8 9 10 11 2 13 14 15 6 17 8 9 20 3 40 50 60 | $\begin{array}{c} {\rm yds.\ ft.}\\ 0 & 3 \\ 0 & 6 \\ 0 & 12 \\ 0 & 12 \\ 0 & 13 \\ 0 & 14 \\ 1 & 3 \\ 1 & 15 \\ 1 & 2 \\ 1 & 15 \\ 2 & 18 \\ 2 & 18 \\ 2 & 18 \\ 2 & 18 \\ 2 & 18 \\ 2 & 18 \\ 3 & 3 \\ 1 & 21 \\ 2 & 18 \\ 2 & 14 \\ 2 & 18 \\ 3 & 15 \\ 3 & 21 \\ 4 & 6 \\ 18 \\ 13 \\ 9 \end{array}$ | $\begin{array}{c} yds. \ ft. \\ 0 \ 62 \\ 0 \ 12 \\ 1 \ 9 \\ 1 \ 21 \\ 2 \ 68 \\ 3 \ 3 \\ 15 \\ 4 \ 121 \\ 2 \ 68 \\ 3 \ 3 \\ 15 \\ 4 \ 121 \\ 2 \ 16 \\ 5 \ 91 \\ 5 \ 91 \\ 5 \ 91 \\ 5 \ 91 \\ 17 \ 15 \\ 13 \\ 226 \\ 18 \\ 226 \\ 18 \end{array}$ | $\begin{array}{c} yds. \ ft. \\ 0 \ 9 \\ 0 \ 18 \\ 1 \ 9 \\ 2 \ 18 \\ 3 \ 9 \\ 4 \ 0 \\ 4 \ 18 \\ 5 \ 9 \\ 6 \ 0 \\ 6 \ 18 \\ 9 \ 9 \\ 10 \ 18 \\ 11 \ 9 \\ 10 \ 18 \\ 11 \ 9 \\ 12 \ 0 \\ 12 \ 18 \\ 13 \ 18 \\ 13 \ 9 \\ 26 \ 18 \\ 33 \ 9 \\ 40 \ 0 \end{array}$ | $\begin{array}{c} {\bf yds.\ ft.}\\ 0\ 12\\ 0\ 24\\ 1\ 21\\ 2\ 18\\ 1\ 21\\ 1\ 21\\ 1\ 21\\ 1\ 21\\ 1\ 21\\ 1\ 21\\ 1\ 21\\ 1\ 21\\ 1\ 21\\ 1\ 21\\ 1\ 21\\ 1\ 21\\ 1\ 26\\ 1\ 16\\ 3\ 51\ 16\\ 21\\ 1\ 26\\ 1\ 18\\ 3\ 51\ 16\ 16\\ 3\ 51\ 16\ 16\\ 3\ 51\ 16\ 16\ 16\ 16\ 16\ 16\ 16\ 16\ 16\ 1$ | $\begin{array}{c} yds, ft.\\ 0 & 15\\ 1 & 3\\ 2 & 6\\ 3 & 9\\ 4 & 12\\ 5 & 15\\ 15\\ 16\\ 18\\ 7 & 21\\ 18\\ 24\\ 10\\ 0\\ 11\\ 18\\ 24\\ 10\\ 0\\ 11\\ 18\\ 24\\ 10\\ 0\\ 21\\ 3\\ 3\\ 4\\ 12\\ 16\\ 18\\ 24\\ 10\\ 21\\ 3\\ 3\\ 3\\ 9\\ 44\\ 5\\ 15\\ 66\\ 18\\ \end{array}$ | $\begin{array}{c} yds. ft.\\ 0 \ 18\\ 19\\ 2 \ 18\\ 4 \ 0\\ 5 \ 9\\ 6 \ 18\\ 9 \ 9\\ 10 \ 18\\ 16\\ 10 \ 18\\ 16\\ 10 \ 18\\ 16\\ 10 \ 18\\ 18\\ 20 \ 0\\ 13 \ 19\\ 14 \ 18\\ 16\\ 21 \ 9\\ 22 \ 18\\ 18\\ 24 \ 0\\ 25 \ 18\\ 24 \ 0\\ 25 \ 18\\ 24 \ 0\\ 25 \ 18\\ 80 \ 0\\ \end{array}$ | $\begin{array}{c} yds. ft.\\ 0 \ 24\\ 1 \ 21\\ 1 \ 21\\ 3 \ 15\\ 5 \ 9 \ 9\\ 7 \ 3 \ 8 \ 94\\ 14 \ 6 \ 16 \ 0\\ 17 \ 91\\ 19 \ 15\\ 21 \ 9 \ 23 \ 3 \ 24\\ 26 \ 18\\ 20 \ 6 \ 32 \ 0\\ 35 \ 19\\ 35 \ 19\\ 35 \ 19\\ 35 \ 19\\ 388 \ 24\\ 106 \ 18\\ \end{array}$ | $\begin{array}{c} yds, ft, \\ 1 & 8 \\ 2 & 6 \\ 4 & 19 \\ 6 & 18 \\ 8 & 24 \\ 11 & 3 \\ 13 & 9 \\ 15 & 15 \\ 17 & 21 \\ 20 & 0 \\ 22 & 6 \\ 13 & 33 \\ 15 \\ 37 & 21 \\ 26 \\ 18 \\ 28 \\ 24 \\ 12 \\ 26 \\ 18 \\ 28 \\ 24 \\ 11 \\ 13 \\ 133 \\ 9 \end{array}$ |
| | Height 6 feet. | Height 7 feet, | Height 8 feet. | Height 9 feet. | Height 12 feet. | Height 15 feet. | Height 18 feet. | Height 21 feet. |
| Ft 123456789010112134451667890101112134451660 | $\begin{array}{c} yds. ft.\\ 1 & 9\\ 8 & 18\\ 8 & 18\\ 8 & 18\\ 13 & 9\\ 16 & 0\\ 16 & 18\\ 9 & 16\\ 13 & 9\\ 16 & 0\\ 18 & 18\\ 9 & 14\\ 9 & 32 & 0\\ 26 & 18\\ 8 & 7 & 9\\ 440 & 0\\ 26 & 18\\ 8 & 7 & 9\\ 442 & 18\\ 8 & 7 & 9\\ 448 & 0\\ 50 & 18\\ 8 & 37 & 9\\ 448 & 0\\ 50 & 18\\ 16 & 18\\ 133 & 9\\ 160 & 0\\ \end{array}$ | $\begin{array}{c} yds, \ ft. \\ 1 \ 15 \\ 3 \ 6 \\ 6 \\ 9 \ 9 \\ 12 \ 12 \\ 15 \\ 15 \\ 15 \\ 18 \\ 18 \\ 21 \\ 28 \\ 0 \\ 31 \\ 3 \\ 34 \\ 6 \\ 37 \\ 9 \\ 40 \\ 12 \\ 28 \\ 0 \\ 31 \\ 3 \\ 34 \\ 6 \\ 37 \\ 9 \\ 40 \\ 12 \\ 43 \\ 15 \\ 6 \\ 2 \\ 6 \\ 9 \\ 3 \\ 9 \\ 12 \\ 43 \\ 15 \\ 6 \\ 2 \\ 6 \\ 9 \\ 3 \\ 9 \\ 12 \\ 15 \\ 156 \\ 18 \\ 18 \\ 18 \\ 18 \\ 18 \\ 18 \\ 18 \\ 1$ | $\begin{array}{c} yds. ft.\\ 1\ 21\\ 1\ 21\\ 7\ 8\\ 7\ 8\\ 10\ 18\\ 14\ 6\\ 17\ 21\\ 21\ 9\\ 24\ 24\\ 28\ 12\\ 28\ 12\\ 28\ 12\\ 28\ 12\\ 28\ 12\\ 32\ 0\\ 35\ 15\\ 33\ 0\\ 35\ 15\\ 33\ 20\\ 8\\ 42\ 18\\ 42\ 18\\ 42\ 18\\ 42\ 18\\ 49\ 21\\ 56\ 24\\ 60\ 12\\ 64\ 0\\ 0\ 67\ 15\\ 71\ 3\\ 106\ 18\\ 142\ 6\\ 142\ 6\\ 117\ 21\\ 213\ 9\end{array}$ | $\begin{array}{cccccccc} y ds. \ ft. \\ y & 2 & 0 \\ 4 & 0 \\ 4 & 0 \\ 8 & 0 \\ 13 & 0 \\ 20 & 0 \\ 24 & 0 \\ 88 & 0 \\ 288 & 0 \\ 288 & 0 \\ 288 & 0 \\ 288 & 0 \\ 368 & 0 \\ 444 & 0 \\ 488 & 0 \\ 582 & 0 \\ 366 & 0 \\ 668 & 0 \\ 78 & 0 \\ 668 & 0 \\ 78 & 0 \\ $ | $\begin{array}{c} yds. \ ft. \\ 2 \ 18 \\ 5 \ 9 \\ 10 \ 18 \\ 16 \ 0 \ 18 \\ 16 \ 0 \ 18 \\ 21 \ 9 \\ 26 \ 18 \\ 32 \ 0 \ 0 \\ 37 \ 9 \\ 42 \ 18 \\ 64 \ 0 \\ 69 \ 9 \\ 74 \ 18 \\ 80 \ 0 \\ 101 \ 9 \\ 106 \ 18 \\ 160 \ 0 \\ 913 \ 9 \\ 266 \ 18 \\ 320 \ 0 \end{array}$ | $\begin{array}{ccccccc} y\dot{ds}, ft, & 3 & 9 \\ 6 & 18 & 9 \\ 9 & 0 & 0 & 0 \\ 28 & 18 & 9 \\ 9 & 0 & 0 & 28 \\ 13 & 9 & 9 \\ 9 & 0 & 0 & 28 \\ 14 & 0 & 0 & 0 \\ 8 & 61 & 8 \\ 15 & 9 & 80 & 0 \\ 8 & 61 & 8 \\ 9 & 80 & 0 & 0 \\ 8 & 61 & 8 \\ 9 & 80 & 0 & 0 \\ 166 & 18 & 9 \\ 113 & 9 & 9 \\ 100 & 0 & 0 \\ 126 & 61 & 8 \\ 133 & 9 & 200 & 0 \\ 126 & 61 & 8 \\ 133 & 9 & 200 & 0 \\ 266 & 18 & 333 & 9 \\ 400 & 0 & 0 \\ \end{array}$ | $\begin{array}{cccccccccccccccccccccccccccccccccccc$ | $\begin{array}{c} yds. ft. \\ 4 & 18 \\ 9 & 9 \\ 9 & 18 \\ 18 & 18 \\ 28 & 0 \\ 37 & 9 \\ 46 & 18 \\ 56 & 0 \\ 65 & 9 \\ 74 & 18 \\ 84 & 0 \\ 93 \\ 39 \\ 112 & 0 \\ 131 & 9 \\ 130 & 18 \\ 112 & 0 \\ 131 & 9 \\ 130 & 18 \\ 140 & 0 \\ 177 & 9 \\ 158 & 18 \\ 168 & 0 \\ 177 & 9 \\ 158 & 18 \\ 280 & 0 \\ 373 & 9 \\ 373 & 9 \\ 466 & 18 \\ 560 & 0 \\ \end{array}$ |

TABLE IL-CUBIC CONTENT OF OBLONG STACKS

TABLE II .- CUBIC CONTENT OF OBLONG STACES.

| h. | | | 1 | Breadth | 15 feet. | | | |
|--|--|---|---|---|---|---|---|---|
| Lengt | Height 6 inches. | Height 1 foot. | Height 1 ft. 6 in. | Height 2 feet. | Height 2ft. 6 in. | Height 3 feet. | Height 4 feet. | Height 5 feet. |
| Ft. 1 2 5 4 5 6 7 8 9 10 11 2 13 14 15 6 17 18 19 200 \$40 50 60 | $\begin{array}{c} yds. ft.\\ 0 & 5\frac{3}{4}\\ 0 & 7\frac{3}{4}\\ 0 & 15\\ 0 & 22\frac{1}{5}\\ 1 & 10\frac{1}{5}\\ 1 & 25\frac{1}{5}\\ 2 & 21\frac{1}{5}\\ 2 & 21\frac{1}{5}$ | $\begin{array}{c} yds. \ ft. \\ 0 \ 7^{\frac{1}{2}} \\ 0 \ 1 \ 5 \\ 1 \ 5 \\ 1 \ 5 \\ 2 \ 21 \\ 3 \ 24 \\ 4 \ 12 \\ 5 \ 15 \\ 3 \ 24 \\ 4 \ 12 \\ 5 \ 15 \\ 3 \ 24 \\ 4 \ 12 \\ 10 \ 15 \\ 16 \ 18 \\ 22 \ 6 \\ 10 \ 15 \\ 11 \ 5 \\ 11 \ 5 \\ 11 \ 5 \\ 11 \ 5 \\ 11 \ 5 \\ 12 \ 27 \\ 21 \\ 33 \ 9 \end{array}$ | $\begin{array}{c} yds. ft.\\ 0 & 11\frac{1}{2} \\ 0 & 11\frac{1}{2} \\ 1 & 18 \\$ | $\begin{array}{c} yds. \ ft.\\ 0 \ 15\\ 1 \ s \\ 2 \ 6\\ 3 \ 9\\ 4 \ 12\\ 5 \ 15\\ 16\\ 18\\ 9 \ 4\\ 10 \ 0\\ 11 \ 3 \ 6\\ 18\\ 12 \ 6\\ 18\\ 12 \ 15\\ 16\\ 18\\ 12 \ 15\\ 16\\ 18\\ 20 \ 0\\ 21 \ 3\\ 20 \ 4\\ 22 \ 6\\ 23 \ 9\\ 44 \ 15\\ 15\\ 66\ 18\\ \end{array}$ | $\begin{array}{c} yds. ft. \\ 0 & 16\frac{3}{4} \\ 1 & 2 \\ 91 \\ 4 \\ 4 \\ 5 \\ 15 \\ 15 \\ 15 \\ 15 \\ 15 \\$ | $\begin{array}{c} yds, \ ft, \\ 0 \ 22b \\ 1 \ 18 \\ 3 \ 9 \\ 5 \ 0 \\ 6 \ 18 \\ 9 \\ 5 \ 0 \\ 11 \ 18 \\ 15 \\ 0 \\ 11 \ 18 \\ 9 \\ 15 \\ 0 \\ 16 \\ 18 \\ 9 \\ 15 \\ 0 \\ 16 \\ 18 \\ 9 \\ 25 \\ 18 \\ 9 \\ 26 \\ 18 \\ 9 \\ 26 \\ 18 \\ 9 \\ 26 \\ 18 \\ 9 \\ 26 \\ 18 \\ 9 \\ 26 \\ 18 \\ 9 \\ 26 \\ 18 \\ 9 \\ 26 \\ 18 \\ 33 \\ 9 \\ 20 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ $ | $\begin{array}{c} yds. ft.\\ 1 & 8\\ 2 & 6\\ 6 & 4 & 12\\ 6 & 18\\ 8 & 24\\ 11 & 8\\ 13 & 9\\ 15 & 15\\ 17 & 21\\ 20 & 0\\ 24 & 12\\ 26 & 18\\ 24 & 12\\ 26 & 18\\ 33 & 15\\ 37 & 21\\ 66 & 18\\ 88 & 24\\ 111 & 3\\ 133 & 9\\ \end{array}$ | $ \begin{array}{c} yds, ft, \\ 1 & 10\frac{1}{2} \\ 9 & 215 \\ 6 & 9 \\ 11 & 5 & 15 \\ 8 & 9 \\ 13 & 24 \\ 16 & 18 \\ 19 & 12 \\ 22 & 6 \\ 27 & 215 \\ 33 & 9 \\ 38 & 24 \\ 41 & 12 \\ 47 & 6 \\ 50 & 0 \\ 52 & 21 \\ 55 & 16 \\ 55 & 15 \\ 55 & 18 \\ 38 & 9 \\ 111 & 32 \\ 138 & 24 \\ 166 & 18 \\ \end{array} $ |
| | Height 6 feet. | Height 7 feet. | Height 8 feet. | Height 9 feet. | Height 12 feet. | Height 15 feet. | Height 18 feet. | Height 21 feet. |
| Ht. 1234567891011234151617819200400 400400 | $\begin{array}{c} yds.ft.\\ 1 \ 18 \\ 3 \ 9 \\ 6 \ 18 \\ 10 \ 0 \\ 13 \ 9 \\ 16 \ 18 \\ 9 \\ 20 \ 10 \\ 23 \ 9 \\ 26 \ 18 \\ 30 \ 0 \\ 23 \ 9 \\ 26 \ 18 \\ 30 \ 0 \\ 33 \ 9 \\ 46 \ 18 \\ 50 \ 0 \\ 63 \ 9 \\ 46 \ 18 \\ 100 \ 0 \\ 133 \ 9 \\ 166 \ 18 \\ 200 \ 0 \\ \end{array}$ | $\begin{array}{c} yds. ft.\\ 1 & 253\\ 3 & 24\\ 7 & 21\\ 115 & 15\\ 19 & 12\\ 23 & 9\\ 27 & 6\\ 81 & 3\\ 85 & 04\\ 46 & 18\\ 50 & 15\\ 54 & 12\\ 58 & 9\\ 62 & 6\\ 66 & 3\\ 70 & 0\\ 77 & 21\\ 116 & 18\\ 155 & 15\\ 194 & 12\\ 233 & 9\\ \end{array}$ | $\begin{array}{c} yds. \ ft. \\ 2 \ 6 \\ 4 \ 12 \\ 8 \ 24 \\ 13 \ 9 \\ 17 \ 21 \\ 22 \ 6 \\ 85 \ 15 \\ 40 \ 0 \\ 44 \ 13 \\ 55 \ 15 \\ 40 \ 0 \\ 44 \\ 48 \ 24 \\ 48 \ 24 \\ 48 \ 24 \\ 66 \ 18 \\ 77 \ 21 \\ 88 \ 24 \\ 133 \ 9 \\ 177 \ 21 \\ 222 \ 6 \\ 266 \ 18 \\ 246 \ 177 \ 21 \\ 222 \ 6 \\ 266 \ 18 \\ \end{array}$ | $\begin{array}{c} yds. ft.\\ 2 & 13\frac{1}{2}\\ 10 & 0\\ 15 & 0\\ 25 & 0\\ 30 & 0\\ 25 & 0\\ 35 & 0\\ 40 & 0\\ 50 & 0\\ 50 & 0\\ 65 & 0\\ 65 & 0\\ 65 & 0\\ 65 & 0\\ 65 & 0\\ 80 & 0\\ 85 & 0\\ 95 & 0\\ 100 & 0\\ 200 & 0\\ 250 & 0\\ 300 & 0\\ \end{array}$ | $\begin{array}{ccccccc} yds. ft. \\ 8 & 9 \\ 6 & 18 \\ 13 & 9 \\ 20 & 0 \\ 26 & 18 \\ 33 & 9 \\ 40 & 0 \\ 46 & 18 \\ 53 & 9 \\ 60 & 0 \\ 46 & 18 \\ 53 & 9 \\ 60 & 0 \\ 66 & 18 \\ 93 & 9 \\ 80 & 0 \\ 86 & 18 \\ 93 & 9 \\ 120 & 0 \\ 126 & 18 \\ 133 & 9 \\ 200 & 0 \\ 266 & 18 \\ 333 & 9 \\ 400 & 0 \\ \end{array}$ | $\begin{array}{ccccccc} y ds. ft. & 4 & 43 \\ 8 & 9 \\ 16 & 18 \\ 25 & 0 \\ 41 & 18 \\ 50 & 0 \\ 58 & 9 \\ 46 & 18 \\ 75 & 0 \\ 88 & 9 \\ 16 & 18 \\ 100 & 0 \\ 133 & 9 \\ 116 & 18 \\ 150 & 0 \\ 133 & 9 \\ 116 & 18 \\ 150 & 0 \\ 133 & 9 \\ 116 & 18 \\ 150 & 0 \\ 158 & 9 \\ 250 & 0 \\ 333 & 9 \\ 416 & 18 \\ 500 & 0 \\ \end{array}$ | $\begin{array}{cccccccccccccccccccccccccccccccccccc$ | yds. (f. 5 223 11 18 23 9 35 0 81 18 93 9 105 0 116 18 163 9 140 0 86 18 163 9 140 0 86 18 93 9 93 9 20 0 86 18 16 18 93 9 93 9 20 0 86 18 18 93 9 20 0 16 18 18 93 9 20 0 16 18 18 93 9 20 0 18 18 93 9 20 0 18 18 93 9 20 0 18 18 93 9 20 0 18 19 19 20 0 18 10 18 93 9 20 0 18 10 18 93 9 20 0 18 10 18 93 9 20 0 18 10 18 93 9 20 0 18 11 18 9 221 18 9 223 9 20 0 18 18 9 223 9 20 0 18 18 9 223 9 20 0 223 19 20 0 20 0 223 19 20 0 223 19 20 0 223 19 20 0 223 19 20 0 20 0 223 19 20 0 20 0 20 0 20 0 20 0 20 0 20 0 20 |

and the second s

TABLE II .- CUBIC CONTENT OF OBLONG STACKS.

| ih. | | | I | Breadth | 18 feet. | | | |
|--|--|---|--|---|--|--|--|--|
| Lengt | Height 6 inches. | Height 1 foot. | Height 1 ft. 6 in. | Height 2 feet. | Height 2 ft. 6 in. | Height 3 feet. | Height 4 feet. | Height 5 feet. |
| Ft. 1 23 4 5 6 7 8 9 10 11 12 13 14 5 16 17 18 9 230 400 60 | $\begin{array}{c} yds. \ ft. \\ 0 \ 4\frac{1}{2} \\ 0 \ 9 \\ 0 \ 18 \\ 1 \ 0 \\ 2 \ 9 \\ 2 \ 18 \\ 1 \ 18 \\ 2 \ 9 \\ 2 \ 18 \\ 3 \ 18 \\ 3 \ 18 \\ 4 \ 0 \\ 4 \ 18 \\ 5 \ 0 \\ 5 \ 18 \\ 6 \ 18 \\ 5 \ 0 \\ 6 \ 18 \\ 10 \ 0 \\ 13 \ 9 \\ 16 \ 18 \\ 20 \ 0 \\ \end{array}$ | $\begin{array}{c} yds. \ ft. \\ 0 \ 9 \\ 0 \ 18 \\ 1 \ 9 \\ 9 \\ 9 \\ 1 \ 9 \\ 9 \\ 1 \ 9 \\ 9 \\ 1 \ 9 \\ 1 \ 9 \\ 1 \ 9 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\$ | $\begin{array}{cccccccccccccccccccccccccccccccccccc$ | $\begin{array}{c} yds. \ ft. \\ 0 \ 18 \\ 1 \\ 1 \\ 9 \\ 2 \\ 18 \\ 4 \\ 0 \\ 5 \\ 9 \\ 6 \\ 18 \\ 9 \\ 9 \\ 9 \\ 10 \\ 18 \\ 18 \\ 16 \\ 0 \\ 17 \\ 9 \\ 18 \\ 18 \\ 12 \\ 0 \\ 18 \\ 18 \\ 12 \\ 0 \\ 18 \\ 18 \\ 12 \\ 0 \\ 18 \\ 18 \\ 12 \\ 0 \\ 18 \\ 18 \\ 21 \\ 9 \\ 22 \\ 18 \\ 18 \\ 21 \\ 9 \\ 22 \\ 18 \\ 24 \\ 0 \\ 25 \\ 9 \\ 24 \\ 10 \\ 25 \\ 9 \\ 24 \\ 10 \\ 25 \\ 9 \\ 24 \\ 10 \\ 25 \\ 10 \\ 10 \\ 10 \\ 10 \\ 10 \\ 10 \\ 10 \\ 1$ | $\begin{array}{c} yds. \ ft. \\ 0 \ 22\frac{3}{2}\\ 1 \ 5 \ 9 \\ 5 \ 0 \\ 6 \ 18 \\ 8 \ 9 \\ 10 \ 0 \\ 11 \ 18 \\ 18 \\ 9 \\ 20 \ 0 \\ 21 \ 18 \\ 9 \\ 20 \ 0 \\ 21 \ 18 \\ 9 \\ 20 \ 0 \\ 21 \ 18 \\ 9 \\ 20 \ 0 \\ 31 \ 18 \\ 9 \\ 26 \ 18 \\ 9 \\ 30 \ 0 \\ 31 \ 18 \\ 38 \\ 9 \\ 30 \ 0 \\ 31 \ 18 \\ 38 \\ 9 \\ 30 \ 0 \\ 31 \ 18 \\ 38 \\ 9 \\ 30 \ 0 \\ 31 \ 18 \\ 38 \\ 9 \\ 30 \ 0 \\ 66 \ 18 \\ 9 \\ 100 \ 0 \\ \end{array}$ | $\begin{array}{c} yds. \ ft. \\ 1 \ 0 \\ 2 \ 0 \\ 6 \ 0 \\ 12 \ 0 \\ 12 \ 0 \\ 14 \ 0 \\ 16 \ 0 \\ 12 \ 0 \\ 14 \ 0 \\ 16 \ 0 \\ 20 \ 0 \\ 24 \ 0 \\ 22 \ 0 \\ 24 \ 0 \\ 28 \ 0 \\ 30 \ 0 \\ 38 \ 0 \\ 40 \ 0 \\ 38 \ 0 \\ 40 \ 0 \\ 80 \ 0 \\ 100 \ 0 \\ 120 \ 0 \end{array}$ | $\begin{array}{c} {\rm yds.\ ft.}\\ 1 \ 9\\ 9 \ 18\\ 5 \ 9\\ 8 \ 0\\ 10 \ 18\\ 13 \ 9\\ 16 \ 0\\ 18 \ 18\\ 21 \ 9\\ 24 \ 0\\ 26 \ 18\\ 29 \ 9\\ 24 \ 0\\ 26 \ 18\\ 37 \ 9\\ 40 \ 0\\ 50 \ 18\\ 37 \ 9\\ 40 \ 0\\ 50 \ 18\\ 53 \ 9\\ 160 \ 0\\ 106 \ 18\\ 133 \ 9\\ 160 \ 0\\ \end{array}$ | $\begin{array}{c} yds. ft.\\ 1 & 18\\ 9 & 618\\ 100 & 0\\ 13 & 9\\ 20 & 0\\ 23 & 9\\ 2618\\ 300 & 0\\ 33 & 9\\ 2618\\ 400 & 0\\ 43 & 9\\ 4618\\ 500 & 0\\ 53 & 9\\ 4618\\ 500 & 0\\ 618\\ 100 & 0\\ 133 & 9\\ 16618\\ 100 & 0\\ 133 & 9\\ 200 & 0\\ \end{array}$ |
| | Height 6 feet. | Height 7 feet. | Height 8 feet. | Height 9 feet. | Height 12 feet. | Height 15 feet. | Height 18 feet, | Height 21 feet. |
| Ft. 1 2 3 4 5 6 7 8 9 10 11 12 13 4 15 16 17 18 9 20 30 40 50 | $\begin{array}{cccccccccccccccccccccccccccccccccccc$ | yds. ft. 9 9 4 18 9 9 14 0 18 18 23 9 28 0 32 18 37 9 28 0 46 18 51 9 56 0 60 18 51 9 56 0 60 18 65 9 70 0 74 18 93 9 140 88 8 93 9 28 0 28 0 | $\begin{array}{c} \mbox{yds. ft.} \\ 2 \ 18 \\ 5 \ 9 \\ 10 \ 18 \\ 16 \ 0 \\ 21 \ 9 \\ 26 \ 18 \\ 32 \ 0 \\ 37 \ 9 \\ 42 \ 18 \\ 32 \ 0 \\ 37 \ 9 \\ 42 \ 18 \\ 64 \ 0 \\ 65 \ 18 \\ 64 \ 0 \\ 69 \ 9 \\ 74 \ 18 \\ 80 \ 0 \\ 85 \ 9 \\ 90 \ 18 \\ 106 \ 18 \\ 106 \ 18 \\ 106 \ 18 \\ 106 \ 18 \\ 320 \ 0 \\ \end{array}$ | $\begin{array}{c} {\bf yds. ft.}\\ {\bf 8}\\ {\bf 0}\\ {\bf 6}\\ {\bf 0}\\ {\bf 12}\\ {\bf 0}\\ {\bf 36}\\ {\bf 0}\\ {\bf $ | $\begin{array}{ccccccc} yds, & ft, \\ 4 & 0 \\ 8 & 0 \\ 8 & 0 \\ 24 & 0 \\ 32 & 0 \\ 32 & 0 \\ 40 & 0 \\ 448 & 0 \\ 56 & 0 \\ 64 & 0 \\ 88 & 0 \\ 88 & 0 \\ 88 & 0 \\ 120 &$ | $\begin{array}{cccccccccccccccccccccccccccccccccccc$ | $\begin{array}{c} {\bf yds.} \ {\bf ft.}\\ {\bf 6} \ {\bf 0} \\ {\bf 12} \ {\bf 0} \\ {\bf 36} \ {\bf 0} \\ {\bf 48} \ {\bf 0} \\ {\bf 96} \ {\bf 0} \\ {\bf 72} \ {\bf 0} \\ {\bf 84} \ {\bf 0} \\ {\bf 96} \ {\bf 0} \\ {\bf 120} \ {\bf 0} \\ {\bf 132} \ {\bf 0} \\ {\bf 132} \ {\bf 0} \\ {\bf 132} \ {\bf 0} \\ {\bf 144} \ {\bf 0} \\ {\bf 156} \ {\bf 0} \\ {\bf 168} \ {\bf 0} \\ {\bf 192} \ {\bf 0} \\ {\bf 204} \ {\bf 0} \\ {\bf 216} \ {\bf 0} \\ {\bf 216} \ {\bf 0} \\ {\bf 228} \ {\bf 0} \\ {\bf 240} \ {\bf 0} \\ {\bf 360} \ {\bf 0} \\ {\bf 480} \ {\bf 0} \\ {\bf 600} \ {\bf 0} \\ {\bf 720} \ {\bf 0} \end{array}$ | $\begin{array}{c} \label{eq:constraint} \hline y ds. ft. \\ 7 & 0 \\ 14 & 0 \\ 156 & 0 \\ 256 & 0 \\ 70 & 0 \\ 84 & 0 \\ 120 & 0 \\ 120 & 0 \\ 120 & 0 \\ 120 & 0 \\ 120 & 0 \\ 120 & 0 \\ 120 & 0 \\ 224 & 0 \\ 224 & 0 \\ 224 & 0 \\ 224 & 0 \\ 2252 & 0 \\ 2252 & 0 \\ 2252 & 0 \\ 2252 & 0 \\ 2252 & 0 \\ 2252 & 0 \\ 2560 & 0 \\ 2260 & 0 \\ 266 & 0 \\ 280 & 0 \\ 700 & 0 \\ 840 & 0 \\ \end{array}$ |

TABLE II .- CUBIC CONTENT OF OBLONG STACKS.

| | | | 1 | Breadth | 21 feet. | | | |
|---|--|--|---|--|--|---|---|--|
| Lengt | Height 6 inches. | Height 1 foot. | Height 1 ft. 6 in. | Height 2 feet. | Height 2 ft. 6 in. | Height S feet. | Height 4 feet. | Height 5 feet. |
| Ft. 198845678910111314151677189200400 | yds. ft. $0.5\frac{1}{1}$, $0.5\frac{1}{1}$, $0.5\frac{1}{1}$, $1.5\frac{1}{1}$, $2.5\frac{1}{2}$, $3.13\frac{1}{2}$, $3.24\frac{1}{2}$, $3.13\frac{1}{2}$, $3.24\frac{1}{2}$, $3.24\frac{1}{2}$, $5.12\frac{1}{2}$, $5.12\frac{1}{2}$, $5.12\frac{1}{2}$, $5.12\frac{1}{2}$, $5.12\frac{1}{2}$, $1.11\frac{1}{2}$, 1.11 | $\begin{array}{c} yds. \ ft. \\ 0 \ 10\frac{1}{2} \\ 0 \ 10\frac{1}{2} \\ 1 \ 15 \\ 2 \ 9 \\ 3 \ 3 \ 248 \\ 4 \ 18 \\ 5 \ 12 \\ 6 \ 7 \ 01 \\ 8 \ 15 \\ 10 \ 9 \\ 9 \ 3 \\ 10 \ 9 \\ 10 \ 9 \\ 11 \ 18 \\ 13 \ 6 \\ 14 \ 0 \\ 14 \ 21 \\ 15 \\ 13 \ 9 \\ 9 \\ 31 \ 3 \\ 38 \ 24 \\ 46 \ 18 \end{array}$ | $\begin{array}{c} yds. \ ft. \\ 0 \ 15\frac{3}{2} \\ 1 \ 2 \ 9 \\ 3 \ 13\frac{1}{2} \\ 4 \ 18 \\ 5 \ 22\frac{1}{3} \\ 7 \ 0 \\ 8 \ 4\frac{1}{3} \\ 9 \\ 9 \\ 10 \ 13\frac{1}{3} \\ 11 \ 18 \\ 12 \ 22\frac{1}{3} \\ 12 \\ 12 \\ 14 \ 0 \\ 17 \ 13\frac{1}{3} \\ 19 \ 22\frac{1}{3} \\ 17 \ 13\frac{1}{3} \\ 19 \ 22\frac{1}{3} \\ 223 \\ 9 \\ 35 \ 0 \\ 46 \ 18 \\ 9 \\ 70 \ 0 \end{array}$ | $\begin{array}{c} yds. \ ft.\\ 0\ 21\\ 1\ 15\\ 8\ 3\\ 4\ 18\\ 6\ 6\\ 7\ 21\\ 9\ 9\\ 10\ 24\\ 12\ 10\\ 15\\ 18\ 18\\ 20\ 6\\ 21\ 21\\ 224\ 24\\ 26\ 12\\ 231\ 21\\ 224\ 24\\ 26\ 12\\ 28\ 0\\ 29\ 15\\ 31\ 8\\ 18\\ 828\ 6\\ 28\ 15\\ 31\ 8\\ 18\\ 622\ 6\\ 29\ 15\\ 31\ 8\\ 39\ 9\\ 9\end{array}$ | $\begin{array}{c} yds. \ ft. \\ 0\ 264 \\ 1\ 254 \\ 8\ 24 \\ 5\ 224 \\ 5\ 224 \\ 5\ 224 \\ 1\ 251 \\ 1\ 251 \\ 1\ 231 \\ 104 \\ 151 \\ 151 \\ 151 \\ 123 \\ 104 \\ 123 \\ 91 \\ 104 \\ 233 \\ 91 \\ 104 \\ 233 \\ 91 \\ 104 \\ 233 \\ 14 \\ 333 \\ 14 \\ 333 \\ 14 \\ 333 \\ 14 \\ 333 \\ 14 \\ 333 \\ 14 \\ 333 \\ 14 \\ 333 \\ 14 \\ 338 \\ 88 \\ 88 \\ 88 \\ 88 \\ 97 \\ 72 \\ 121 \\ 97 \\ 6 \\ 116 \\ 18 \\ 161 \\ 18 \\ 161 \\ 18 \\ 100 \\ 1$ | $\begin{array}{ccccccc} yds. & ft. \\ 1 & 4\frac{1}{2} & 9 \\ 2 & 9 \\ 4 & 18 \\ 7 & 0 \\ 1 & 18 \\ 14 & 0 \\ 16 & 9 \\ 11 & 18 \\ 14 \\ 14 \\ 14 \\ 25 \\ 18 \\ 18 \\ 28 \\ 0 \\ 25 \\ 18 \\ 28 \\ 0 \\ 32 \\ 18 \\ 35 \\ 0 \\ 33 \\ 18 \\ 35 \\ 18 \\ 35 \\ 18 \\ 35 \\ 18 \\ 35 \\ 18 \\ 35 \\ 18 \\ 35 \\ 18 \\ 35 \\ 18 \\ 35 \\ 18 \\ 35 \\ 10 \\ 18 \\ 18 \\ 10 \\ 10 \\ 10 \\ 10 \\ 10$ | $\begin{array}{cccccccccccccccccccccccccccccccccccc$ | $\begin{array}{c} \textbf{yds. ft} \\ 1 & 254 \\ 3 & 24 \\ 7 & 21 \\ 15 & 15 \\ 19 & 12 \\ 23 & 9 \\ 27 & 6 \\ 385 & 24 \\ 46 & 18 \\ 50 & 15 \\ 54 & 12 \\ 46 & 18 \\ 50 & 15 \\ 54 & 12 \\ 66 & 3 \\ 77 & 21 \\ 116 & 18 \\ 155 & 19 \\ 41 \\ 123 & 9 \\ \end{array}$ |
| | Height 6 feet. | Height 7 feet. | Height 8 feet. | Height 9 feet. | Height 12 feet. | Height 15 feet. | Height 18 feet. | Height 21 feet. |
| Ft. 21 23 4 5 6 7 8 9 10 11 12 3 14 15 16 17 8 19 20 30 40 5 60 | $\begin{array}{c} yds, \ ft.\\ g & g \\ 4 & 18 \\ 9 & 9 \\ 14 & 0 \\ 18 & 18 \\ 23 & 9 \\ 28 & 0 \\ 32 & 18 \\ 37 & 9 \\ 42 & 0 \\ 46 & 18 \\ 37 & 9 \\ 46 & 18 \\ 65 & 9 \\ 74 & 18 \\ 79 & 9 \\ 88 & 18 \\ 93 & 9 \\ 140 & 0 \\ 186 & 18 \\ 233 & 9 \\ 280 & 0 \\ \end{array}$ | $\begin{array}{c} yds. \ ft. \\ 2 \ 19k \\ 5 \ 12 \\ 10 \ 24 \\ 16 \ 9 \\ 21 \ 21 \\ 21 \ 21 \\ 27 \ 6 \\ 82 \ 18 \\ 88 \ 3 \\ 49 \ 10 \\ 54 \ 12 \\ 65 \ 9 \\ 70 \ 21 \\ 76 \ 6 \\ 81 \ 18 \\ 87 \ 3 \\ 92 \ 15 \\ 108 \ 24 \\ 65 \ 9 \\ 103 \ 12 \\ 108 \ 24 \ 24 \\ 108 \ 24 \ 24 \\ 108 \ 24 \ 24 \\ 108 \ 24 \ 24 \\ 108 \ 24 \ 24 \ 24 \ 24 \\ 108 \ 24 \ 24 \ 24 \ 24 \ 24 \ 24 \ 24 \ 2$ | $\begin{array}{cccccccccccccccccccccccccccccccccccc$ | $\begin{array}{ccccccc} yds. & ft. \\ & S & 13 \\ 7 & 0 \\ 7 & 0 \\ 14 & 0 \\ 21 & 0 \\ 35 & 0 \\ 42 & 0 \\ 42 & 0 \\ 42 & 0 \\ 63 & 0 \\ 70 & 0 \\ 63 & 0 \\ 77 & 0 \\ 63 & 0 \\ 77 & 0 \\ 84 & 0 \\ 91 & 0 \\ 98 & 0 \\ 105 & 0 \\ 98 & 0 \\ 105 & 0 \\ 126 & 0 \\ 126 & 0 \\ 133 & 0 \\ 140 & 0 \\ 210 & 0 \\ 280 & 0 \\ 350 & 0 \\ 420 & 0 \\ \end{array}$ | $\begin{array}{cccccccccccccccccccccccccccccccccccc$ | $\begin{array}{c} yds. \ ft. \\ 5\ 224\\ 11\ 18\\ 23\ 9\\ 35\ 0\\ 81\ 18\\ 93\ 9\\ 105\ 0\\ 116\ 18\\ 93\ 9\\ 105\ 0\\ 116\ 18\\ 128\ 9\\ 105\ 0\\ 116\ 18\\ 128\ 9\\ 106\ 0\\ 116\ 18\\ 128\ 9\\ 210\ 0\\ 221\ 18\\ 198\ 9\\ 210\ 0\\ 223\ 9\ 0\\ 210\ 0\ 0\\ 210\ 0\ 0\ 0\ 0\ 0\ 0\ 0\ 0\ 0\ 0\ 0\ 0\ 0$ | $\begin{array}{ccccccc} yds. & ft. \\ 7 & 0 \\ 14 & 0 \\ 28 & 0 \\ 42 & 0 \\ 42 & 0 \\ 70 & 0 \\ 84 & 0 \\ 98 & 0 \\ 126 & 0 \\ 126 & 0 \\ 126 & 0 \\ 126 & 0 \\ 126 & 0 \\ 126 & 0 \\ 126 & 0 \\ 224 & 0 \\ 228 & 0 \\ 228 & 0 \\ 228 & 0 \\ 228 & 0 \\ 228 & 0 \\ 228 & 0 \\ 228 & 0 \\ 228 & 0 \\ 228 & 0 \\ 228 & 0 \\ 252 & 0 \\ 266 & 0 \\ 200 & 0 \\ 840 & 0 \\ \end{array}$ | yds. ft. 8 44 16 9 82 18 49 0 65 9 81 18 95 0 114 9 130 18 147 0 163 9 179 18 196 0 212 9 228 18 246 0 261 9 277 18 294 0 310 9 297 18 294 0 310 9 208 18 294 0 310 9 208 18 294 0 81 19 208 18 294 0 201 9 201 9 201 9 201 9 201 9 201 9 201 9 201 9 202 18 204 0 201 9 202 18 204 0 201 9 202 18 204 0 201 9 202 18 204 0 201 9 202 18 202 19 207 18 202 18 204 0 203 18 204 0 203 20 208 18 204 0 208 18 204 0 208 18 208 18 209 0 208 18 208 0 208 18 209 0 208 18 209 0 208 18 209 0 208 18 209 0 208 18 209 0 209 0 208 18 209 0 208 0 2 |

TABLE III.

Shows the number of stones of hat, etc., in staces containing from 1 to 500 oubic yards, at rates from 4 to 20 stones fer oubic yard.

Thue content of stacks in cubic yards is placed in the left-hand oblum of the Table; and, in the first two pages, under their respective headings, opposite each content, in found the number of stoness at any required rate, from 4 to 12 stones per cubic yard; the second two pages contain the number of stones in each content, from 13 to 29 stones per cubic yard.

Having ascertained by Tables I' or II, the content of a stack in cubic yards, and estimated, from its size, age, &c, the number of stones, whether Imperial or Scotch Trone, that a cubic yard may be supposed to weigh, the number of stones in the stack is at once found in the column under the estimated weight, opposite the given content.

Thus, if the content of a stack is found to be 76 cubic yards, and is supposed to weigh at the rate of 16 stones per cubic yard; on turning to the Table, we find that in the column under 16 stones, opposite 76 yards, stands 1216 stones, the weight of the stack.

Nors. The extent and usefulness of the Table may be increased by remembering that a cypher added to the right of any number raises its value tenfold. If, then, we add a cypher to both the yards and the stones, in the above example, a stack containing 700 cutie yards would be shown to weigh 12,160 stones.

To reduce Imperial stones to hundredweights, divide the number by 3; thus, $1216 \div 8 = 152$ cvt.; and $12,160 \div 8 = 1520$ cvt.; which may be divided by 20, to reduce them to tons, if required.

38 TABLE III.-WEIGHT OF HAY, ETC., IN CUBIC YARDS.

| $ \begin{array}{c c c c c c c c c c c c c c c c c c c $ | | - | | | _ | | | | | |
|--|--------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| $\begin{array}{c c c c c c c c c c c c c c c c c c c $ | Solid | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 19 |
| $ \begin{array}{c c c c c c c c c c c c c c c c c c c $ | Yards. | Stones. |
| | 1 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| $ \begin{array}{ccccccccccccccccccccccccccccccccccc$ | 2 | 8 | 10 | 12 | 14 | 16 | 18 | 20 | 22 | 24 |
| | 3 | 12 | 15 | 18 | 21 | 24 | 27 | 30 | 83 | 36 |
| | 4 | 16 | 20 | 24 | 28 | 32 | 36 | 40 | 44 | 48 |
| | 5 | 20 | 25 | 30 | 35 | 40 | 45 | 50 | 55 | 60 |
| $ \begin{array}{cccccccccccccccccccccccccccccccccccc$ | 6 | 24 | 30 | 36 | 42 | 48 | 54 | 60 | 66 | 72 |
| | 7 | 28 | 35 | 42 | 49 | 56 | 63 | 70 | 77 | 84 |
| $\begin{array}{c c c c c c c c c c c c c c c c c c c $ | 8 | 32 | 40 | 48 | 56 | 64 | 72 | 80 | 88 | 96 |
| $ \begin{array}{ccccccccccccccccccccccccccccc$ | 9 | 36 | 45 | 54 | 63 | 72 | 81 | 90 | 99 | 108 |
| $ \begin{array}{cccccccccccccccccccccccccccccccccccc$ | 10 | 40 | 50 | 60 | 70 | 80 | 90 | 100 | 110 | 120 |
| $ \begin{array}{c ccccccccccccccccccccccccccccccccccc$ | 11 | 44 | 55 | 66 | 77 | 88 | 99 | 110 | 121 | 132 |
| $ \begin{array}{c ccccccccccccccccccccccccccccccccccc$ | 12 | 48 | 60 | 72 | 84 | 96 | 108 | 120 | 132 | 144 |
| $ \begin{array}{cccccccccccccccccccccccccccccccccccc$ | 13 | 52 | 65 | 78 | 91 | 104 | 117 | 130 | 143 | 156 |
| | 14 | 56 | 70 | 84 | 98 | 112 | 126 | 140 | 154 | 168 |
| | 15 | 60 | 75 | 90 | 105 | 120 | 135 | 150 | 165 | 180 |
| $ \begin{array}{c c c c c c c c c c c c c c c c c c c $ | 16 | 64 | 80 | 96 | 112 | 128 | 144 | 160 | 176 | 192 |
| $ 18 \begin{tabular}{ c c c c c c c c c c c c c c c c c c c$ | 17 | 68 | 85 | 102 | 119 | 136 | 153 | 170 | 187 | 204 |
| | 18 | 72 | 90 | 108 | 126 | 144 | 162 | 180 | 198 | 216 |
| $ \begin{array}{cccccccccccccccccccccccccccccccccccc$ | 19 | 76 | 95 | 114 | 133 | 152 | 171 | 190 | 209 | 228 |
| $ \begin{array}{cccccccccccccccccccccccccccccccccccc$ | 20 | 80 | 100 | 120 | 140 | 160 | 180 | 200 | 220 | 240 |
| $ \begin{array}{cccccccccccccccccccccccccccccccccccc$ | 21 | 84 | 105 | 126 | 147 | 168 | 189 | 210 | 231 | 252 |
| $ \begin{array}{cccccccccccccccccccccccccccccccccccc$ | 22 | 88 | 110 | 132 | 154 | 176 | 198 | 220 | 242 | 264 |
| $ \begin{array}{cccccccccccccccccccccccccccccccccccc$ | 23 | 92 | 115 | 138 | 161 | 184 | 207 | 230 | 253 | 276 |
| $ \begin{array}{cccccccccccccccccccccccccccccccccccc$ | 24 | 96 | 120 | 144 | 168 | 192 | 216 | 240 | 264 | 288 |
| $ \begin{array}{cccccccccccccccccccccccccccccccccccc$ | 25 | 100 | 125 | 150 | 175 | 200 | 225 | 250 | 275 | 300 |
| $ \begin{array}{c ccccccccccccccccccccccccccccccccccc$ | 26 | 104 | 130 | 156 | 182 | 208 | 234 | 260 | 286 | 312 |
| $ \begin{array}{c ccccccccccccccccccccccccccccccccccc$ | 27 | 108 | 135 | 162 | 189 | 216 | 243 | 270 | 297 | 324 |
| $ \begin{array}{c ccccccccccccccccccccccccccccccccccc$ | 28 | 112 | 140 | 168 | 196 | 224 | 252 | 280 | 308 | 336 |
| $ \begin{array}{c ccccccccccccccccccccccccccccccccccc$ | 29 | 116 | 145 | 174 | 203 | 232 | 261 | 290 | 319 | 348 |
| $ \begin{array}{c ccccccccccccccccccccccccccccccccccc$ | 30 | 120 | 150 | 180 | 210 | 240 | 270 | 300 | 330 | 360 |
| $ \begin{array}{cccccccccccccccccccccccccccccccccccc$ | 31 | 124 | 155 | 186 | 217 | 248 | 279 | 310 | 341 | 372 |
| $ \begin{array}{cccccccccccccccccccccccccccccccccccc$ | 32 | 128 | 160 | 192 | 224 | 256 | 288 | 320 | 352 | 384 |
| $ \begin{array}{cccccccccccccccccccccccccccccccccccc$ | 33 | 132 | 165 | 198 | 231 | 264 | 297 | 330 | 363 | 396 |
| $\begin{array}{cccccccccccccccccccccccccccccccccccc$ | 84 | 136 | 170 | 204 | 238 | 272 | 306 | 340 | 374 | 408 |
| $\begin{array}{cccccccccccccccccccccccccccccccccccc$ | 35 | 140 | 175 | 210 | 245 | 280 | 315 | 350 | 385 | 420 |
| $\begin{array}{cccccccccccccccccccccccccccccccccccc$ | 36 | 144 | 180 | 216 | 252 | 288 | 324 | 360 | 396 | 432 |
| $\begin{array}{c ccccccccccccccccccccccccccccccccccc$ | 37 | 148 | 185 | 222 | 259 | 296 | 333 | 370 | 407 | 444 |
| $\begin{array}{cccccccccccccccccccccccccccccccccccc$ | 38 | 152 | 190 | 228 | 266 | 304 | 342 | 380 | 418 | 456 |
| $ \begin{array}{cccccccccccccccccccccccccccccccccccc$ | 39 | 156 | 195 | 234 | 273 | 312 | 351 | 390 | 429 | 465 |
| $ \begin{array}{cccccccccccccccccccccccccccccccccccc$ | 40 | 160 | 200 | 240 | 280 | 320 | 360 | 400 | 440 | 480 |
| $\begin{array}{cccccccccccccccccccccccccccccccccccc$ | 41 | 164 | 205 | 246 | 287 | 328 | 369 | 410 | 451 | 493 |
| $\begin{array}{cccccccccccccccccccccccccccccccccccc$ | 42 | 168 | 210 | 252 | 294 | 336 | 378 | 420 | 462 | 004 |
| $\begin{array}{cccccccccccccccccccccccccccccccccccc$ | 43 | 172 | 215 | 258 | 301 | 344 | 387 | 430 | 473 | 016 |
| $\begin{array}{c ccccccccccccccccccccccccccccccccccc$ | 44 | 176 | 220 | 264 | 308 | 352 | 396 | 440 | 484 | 028 |
| 46 184 230 276 322 368 414 460 506 552 | 45 | 180 | 225 | 270 | 315 | 360 | 405 | 450 | 495 | 040 |
| | 46 | 184 | 230 | 276 | 322 | 368 | 414 | 460 | 006 | 002 |

| | TAB | LE III | -WEIGH | T OF H | AY, ETC | ., IN C | UBIC Y/ | RD6. | 39 |
|-----------------|--------------|--------------|--------------|--------------|--------------|--------------|---------------|---------------|---------------|
| Solid Yards. | 4 Stones. | 5 Stones. | 6 Stones. | 7 Stones. | 8 Stones. | 9 Stones. | 10 Stones. | 11 Stones. | 19 Stones. |
| 47 | 188 | 235 | 282 | 329 | 376 | 423 | 470 | 517 | 564 |
| 48 | 192 | 240 | 288 | 336 | 384 | 432 | 480 | 528 | 576 |
| 49 | 196 | 245 | 294 | 343 | 392 | 441 | 490 | 539 | 588 |
| .50 | 200 | 250 | 300 | 350 | 400 | 450 | 500 | 550 | 600 |
| 51 | 204 | 255 | 306 | 357 | 408 | 459 | 510 | 561 | 612 |
| 52 | 208 | 260 | 312 | 364 | 416 | 468 | 520 | 572 | 624 |
| 53 | 212 | 265 | 318 | 371 | 424 | 477 | 530 | 583 | 636 |
| 54 | 216 | 270 | 324 | 378 | 432 | 486 | 540 | 594 | 648 |
| 55 | 220 | 275 | 330 | 385 | 440 | 495 | 550 | 605 | 660 |
| 56 | 224 | 280 | 336 | 392 | 448 | 504 | 560 | 616 | 672 |
| 57 | 228 | 285 | 342 | 399 | 456 | 513 | 570 | 627 | 684 |
| 58 | 232 | 290 | 348 | 406 | 464 | 522 | 580 | 638 | 696 |
| 59 | 236 | 295 | 354 | 413 | 472 | 531 | 590 | 649 | 708 |
| 60 | 240 | 300 | 360 | 420 | 480 | 540 | 600 | 660 | 720 |
| 61 | 244 | 305 | 366 | 427 | 488 | 549 | 610 | 671 | 732 |
| 62 | 248 | 310 | 372 | 434 | 490 | 508 | 620 | 682 | 744 |
| 63 | 252 | 315 | 378 | 441 | 504 | 567 | 630 | 693 | 756 |
| 04 | 200 | 020 | 384 | 448 | 012 | 070 | 640 | 704 | 768 |
| 65 | 260 | 325 | 390 | 400 | 520 | 080 | 650 | 715 | 780 |
| 00 | 204 | 330 | 390 | 402 | 528 | 594 | 660 | 726 | 792 |
| 07 | 208 | 030 | 402 | 409 | 030 | 603 | 670 | 737 | 804 |
| 08 | 272 | 945 | 408 | 470 | 011 | 612 | 680 | 748 | 816 |
| 70 | 010 | 350 | 490 | 400 | 5002 | 021 | 200 | 100 | 040 |
| 71 | 200 | 355 | 498 | 407 | 500 | 620 | 710 | 701 | 010 |
| 70 | 988 | 380 | 420 | 504 | 578 | 619 | 710 | 702 | 904 |
| 73 | 200 | 385 | 498 | 511 | 584 | 857 | 790 | 802 | 0/10 |
| 74 | 206 | 370 | 444 | 518 | 502 | 688 | 740 | 814 | 010 |
| 75 | 300 | 375 | 450 | 525 | 600 | 675 | 750 | 825 | 900 |
| 76 | 304 | 380 | 456 | 532 | 608 | 684 | 760 | 836 | 912 |
| 77 | 308 | 385 | 462 | 539 | 616 | 693 | 770 | 847 | 924 |
| 78 | 312 | 390 | 468 | 546 | 624 | 702 | 780 | 858 | 936 |
| 79 | 316 | 395 | 474 | 553 | 632 | 711 | 790 | 869 | 948 |
| 80 | 320 | 400 | 480 | 560 | 640 | 720 | 800 | 880 | 960 |
| 85 | 340 | 425 | 510 | 595 | 680 | 765 | 850 | 935 | 1020 |
| 90 | 360 | 450 | 540 | 630 | 720 | 810 | 900 | 990 | 1080 |
| 95 | 380 | 475 | 570 | 665 | 760 | 855 | 950 | 1045 | 1140 |
| 100 | 400 | 500 | 600 | 700 | 800 | 900 | 1000 | 1100 | 1200 |
| 150 | 600 | 750 | 900 | 1050 | 1200 | 1350 | 1500 | 1650 | 1800 |
| 200 | 800 | 1000 | 1200 | 1400 | 1600 | 1800 | 2000 | 2200 | 2400 |
| 250 | 1000 | 1250 | 1500 | 1750 | 2000 | 2250 | 2500 | 2750 | 3000 |
| 300 | 1200 | 1500 | 1800 | 2100 | 2400 | 2700 | 3000 | 3300 | 3600 |
| 350 | 1400 | 1750 | 2100 | 2450 | 2800 | 3150 | 3500 | 3850 | 4200 |
| 400 | 1600 | 2000 | 2400 | 2800 | 3200 | 3600 | 4000 | 4400 | 4800 |
| 450 | 1800 | 2250 | 2700 | 3350 | 3600 | 4050 | 4500 | 4950 | 5400 |
| 000 | 2000 | 2300 | 19000 | 13800 | 14000 | 1000 | 5000 | 5500 | 1 8000 |
| | | | - | | | | | | |

| Solid Yards. | 13 Stones. | 14 Stones. | 15 Stones. | 16 Stones. | 17 Stones. | 18 Stones, | 19 Stones. | 20 Stones |
|-----------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|--------------|
| 1 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
| 2 | 26 | 28 | 30 | 32 | 34 | 36 | 38 | 40 |
| 3 | 39 | 42 | 45 | 48 | 51 | 54 | 57 | 60 |
| 4 | 52 | 56 | 60 | 64 | 68 | 72 | 76 | 80 |
| 5 | 65 | 70 | 75 | 80 | 85 | 90 | 95 | 100 |
| 6 | 78 | 84 | 90 | 96 | 102 | 108 | 114 | 120 |
| 7 | 91 | 98 | 105 | 112 | 119 | 126 | 133 | 140 |
| 8 | 104 | 112 | 120 | 128 | 136 | 144 | 152 | 160 |
| 9 | 117 | 126 | 135 | 144 | 153 | 162 | 171 | 180 |
| 10 | 130 | 140 | 150 | 160 | 170 | 180 | 190 | 200 |
| 11 | 143 | 154 | 165 | 176 | 187 | 198 | 209 | 220 |
| 12 | 156 | 168 | 180 | 192 | 204 | 216 | 228 | 240 |
| 13 | 169 | 182 | 195 | 208 | 221 | 234 | 247 | 260 |
| 14 | 182 | 196 | 210 | 224 | 238 | 252 | -266 | 280 |
| 15 | 195 | 210 | 225 | 240 | 255 | 270 | 285 | 300 |
| 16 | 208 | 224 | 240 | 256 | 272 | 288 | 304 | 320 |
| 17 | 221 | 238 | 255 | 272 | 289 | 306 | 323 | 340 |
| 18 | 234 | 252 | 270 | 288 | 306 | 324 | 342 | 360 |
| 19 | 247 | 266 | 285 | 304 | 323 | 342 | 361 | 380 |
| 20 | 260 | 280 | 300 | 320 | 340 | 360 | 380 | 400 |
| 21 | 273 | 294 | 315 | 336 | 357 | 378 | 399 | 420 |
| 22 | 286 | 308 | 330 | 352 | 374 | 396 | 418 | 440 |
| 23 | 200 | 322 | 345 | 368 | 391 | 414 | 437 | 460 |
| 94 | 819 | 338 | 380 | 384 | 408 | 432 | 458 | 480 |
| 25 | 395 | 350 | 375 | 400 | 425 | 450 | 475 | 500 |
| 26 | 338 | 364 | 390 | 416 | 442 | 468 | 494 | 520 |
| 97 | 351 | 379 | 405 | 499 | 450 | 486 | 519 | 540 |
| 28 | 364 | 302 | 420 | 448 | 476 | 504 | 132 | 560 |
| 20 | 877 | 400 | 195 | 484 | 409 | 599 | 551 | 580 |
| 30 | 300 | 420 | 450 | 480 | 510 | 540 | 570 | 800 |
| 31 | 403 | 494 | 485 | 408 | 527 | 558 | 580 | 620 |
| 32 | 418 | 448 | 480 | 512 | 544 | 578 | 608 | 640 |
| 22 | 490 | 489 | 405 | 599 | 501 | 504 | 897 | 680 |
| 34 | 449 | 478 | 510 | 544 | 578 | 612 | RAR | 680 |
| 35 | 455 | 400 | 525 | 580 | 595 | 630 | 665 | 700 |
| 38 | 189 | 504 | 540 | 578 | 619 | 649 | 694 | 790 |
| 37 | 491 | 519 | 555 | 509 | 620 | 888 | 703 | 740 |
| 38 | 404 | 599 | 570 | 602 | 646 | 694 | 799 | 780 |
| 39 | 507 | 548 | 585 | 694 | RAS | 709 | 741 | 780 |
| 40 | 590 | 560 | 800 | 610 | 690 | 790 | 780 | 800 |
| 41 | 533 | 574 | 615 | 858 | 607 | 799 | 770 | 820 |
| 49 | 510 | 500 | 010 | 000 | 714 | 100 | 200 | 840 |
| 49 | 550 | 609 | 645 | 600 | 712 | 700 | 917 | 880 |
| 44 | 579 | 616 | 620 | 704 | 749 | 700 | 898 | 880 |
| 45 | 595 | 010 | 000 | 790 | 705 | 910 | 955 | 000 |
| 10 | 500 | 000 | 010 | 120 | 100 | 010 | 000 | 000 |

| TABLE III WEIGHT OF HAY, ETC., IN CUBIC YAN |
|---|
|---|

| - | | | | | | | | |
|--------|---------|---------|---------|---------|---------|---------|---------|---------|
| Solid | 13 | 14 | 15 | 16 | 17 | • 18 | 19 | 20 |
| Yards. | Stones, | Stones. |
| | | | | - | - | 0.10 | 000 | |
| 47 | 611 | 658 | 705 | 752 | 799 | 846 | 893 | 940 |
| 48 | 624 | 672 | 720 | 708 | 810 | 864 | 912 | 960 |
| 49 | 637 | 686 | 735 | 784 | 833 | 882 | 931 | 980 |
| 50 | 650 | 700 | 750 | 800 | 850 | 900 | 950 | 1000 |
| 51 | 663 | 714 | 765 | 810 | 867 | 918 | 969 | 1020 |
| 52 | 676 | 728 | 780 | 832 | 884 | 936 | 988 | 1040 |
| 53 | 689 | 742 | 795 | 848 | 901 | 954 | 1007 | 1060 |
| 54 | 702 | 756 | 810 | 864 | 918 | 972 | 1026 | 1080 |
| 55 | 715 | 770 | 825 | 880 | 935 | 990 | 1045 | 1100 |
| 56 | 728 | 784 | 840 | 896 | 952 | 1008 | 1064 | 1120 |
| 57 | 741 | 798 | 855 | 912 | 969 | 1026 | 1083 | 1140 |
| 58 | 754 | 812 | 870 | 928 | 986 | 1044 | 1102 | 1160 |
| 59 | 767 | 826 | 885 | 944 | 1003 | 1062 | 1121 | 1180 |
| 60 | 780 | 840 | 900 | 960 | 1020 | 1080 | 1140 | 1200 |
| 61 | 793 | 854 | 915 | 976 | 1037 | 1098 | 1159 | 1220 |
| 62 | 816 | 868 | 930 | 992 | 1054 | 1116 | 1178 | 1240 |
| 63 | 829 | 882 | 945 | 1008 | 1071 | 1134 | 1197 | 1260 |
| 64 | 842 | 896 | 960 | 1024 | 1088 | 1152 | 1216 | 1280 |
| 65 | 855 | 910 | 975 | 1040 | 1105 | 1170 | 1235 | 1300 |
| 66 | 868 | 924 | 990 | 1056 | 1122 | 1188 | 1254 | - 1320 |
| 67 | 881 | 938 | 1005 | 1072 | 1139 | 1206 | 1273 | 1340 |
| 68 | 894 | 952 | 1020 | 1088 | 1156 | 1224 | 1292 | 1360 |
| 69 | 907 | 966 | 1035 | 1104 | 1173 | 1242 | 1311 | 1380 |
| 70 | 910 | 980 | 1050 | 1120 | 1190 | 1260 | 1330 | 1400 |
| 71 | 923 | 994 | 1065 | 1136 | 1207 | 1278 | 1349 | 1420 |
| 72 | 936 | 1008 | 1080 | 1152 | 1224 | 1296 | 1368 | 1440 |
| 73 | 949 | 1022 | 1095 | 1168 | 1241 | 1314 | . 1387 | 1460 |
| 74 | 962 | 1036 | 1110 | 1184 | 1258 | 1332 | 1406 | 1480 |
| 75 | 975 | 1050 | 1125 | 1200 | 1275 | 1350 | 1425 | 1500 |
| 76 | 988 | 1064 | 1140 | 1216 | 1292 | 1368 | 1444 | 1520 |
| 77 | 1001 | 1078 | 1155 | 1232 | 1309 | 1386 | 1463 | 1540 |
| 78 | 1014 | 1092 | 1170 | 1248 | 1326 | 1404 | 1482 | 1560 |
| 79 | 1027 | 1106 | 1185 | 1264 | 1343 | 1422 | 1501 | 1580 |
| 80 | 1040 | 1120 | 1200 | 1280 | 1360 | 1440 | 1520 | 1600 |
| 85 | 1105 | 1190 | 1275 | 1360 | 1445 | 1530 | 1615 | 1700 |
| 90 | 1170 | 1260 | 1350 | 1440 | 1530 | 1620 | 1710 | 1800 |
| 95 | 1235 | 1330 | 1425 | 1520 | 1615 | 1710 | 1805 | 1900 |
| 100 | 1300 | 1400 | 1500 | 1600 | 1700 | 1800 | 1900 | 2000 |
| 150 | 1950 | 2170 | 2250 | 2400 | 2550 | 2700 | 2850 | 3000 |
| 200 | 2600 | 2800 | 3000 | 3200 | 3400 | 3600 | 3800 | 4000 |
| 250 | 8250 | 3500 | 3750 | 4000 | 4250 | 4500 | 4750 | 5000 |
| 300 | 3900 | 4200 | 4500 | 4800 | 5100 | 5400 | 5700 | 6000 |
| 350 | 4550 | 4900 | 5250 | 5600 | 5950 | 6300 | 6650 | 7000 |
| 400 | 5200 | 5600 | 6000 | 6400 | 6800 | 7200 | 7600 | 8000 |
| 450 | 5850 | 6300 | 6750 | 7200 | 7650 | 8100 | 8550 | 9000 |
| 500 | 16500 | 17000 | 17500 | 18000 | 18500 | 1 9000 | 1 9500 | 1 10000 |

TABLE IV.

Shows the content of tanks, etc., of a cylindrical form, in cubic tards and fert, from 4 to $15\frac{1}{2}$ feet in diameter, and from 4 to 14 feet in depth.

THE depths are found in the left-hand column of the pages, and the diameters along the tops of the other columns, in their order; and the content, at any given diameter and depth, is found opposite the given depth under the given diameter.

In calculating the Table, fractions of a half-foot and under are neglected, when above a half-foot, they are reckoned 1.

EXAMPLE. What is the cubic content of a cylindrical tank, the diameter of which is 121 feet, and the depth 8 feet?

Look in the Table for the diameter $12\frac{1}{2}$ feet, and under which, opposite the depth 8 feet, is found 36 yards 10 feet, the cubic content.

To calculate the content of a cylindrical tank, having the diameter and depth given,

Rucz 1. Square the diameter, multiply the product by the depth, and by .7854, and, if the dimensions are given in feet, the result is the content in cubic feet; if the dimensions are given in inches, in place of .7854, multiply by .00045542, which will also give the content in cubic feet, which divide by 27, to reduce to cubic yards if required.

2. Or, square the diameter, multiply the product by the depth, and by .02909, the product is the content in cubio yards, if the dimensions are given in feet; if the dimensions are given in inches, in place of .02909, multiply by .000016834, and the product is also the content in cubic yards.

Take, for exercise, the above example, by the rules in their order.

By Rule 1, the dimensions in feet,

12.5² = 156.25 × 8 = 1250 × .7854 = 981.75 cubio feet.

Dimensions in inches, diameter 150 inches, depth 96 inches,

 150^2 22500 \times 96 2160000 \times 000045452 981.7632 cubio feet, and 981.7632, divided by 27, gives 36 yards 9.7632 feet, or nearly 9³/₂ feet. TABLE IV .- CUBIC CONTENT OF CYLINDRICAL TANKS.

43

By Rule 2, the dimensions in feet,

12.5² = 156.25 × 8 = 1250 × .02909 = 36.3625 yards.

Dimensions in inches,

 $150^2 = 22500 \times 96 = 2160000 \times .000016834 = 36.36144$ yards, and the fraction, .36144, multiplied by 27, gives 9.7588, or nearly $9\frac{5}{2}$ feet as above.

These results differ a little from the content shown in the Table, as fractions above a half-foot are set down as 1.

Notr. If the diameter of a circular tank be multiplied by 3.1416, the product is equal to its circumference; and, if the circumference be multiplied by .31831, the product is equal to its diameter.

44 TABLE IV.-CUBIC CONTENT OF OYLINDRICAL TANKS.

| Ë | | | | | | DIAM | ETER. | | | | | - |
|---|---|--|--|---|---|--|---|--|--|---|--|--|
| DEFI | 4 F | eet. | 41 I | eet. | 5 F | eet. | 51 I | leet. | 6 F | eet. | 61 I | leet. |
| Feet. | Yds. | Ft. | Yds. | Ft. | Yds. | Ft. | Yds. | Ft. | Yds. | Ft. | Yds. | Ft. 95 |
| 41 | 2 | 3 | 2 | 18 | 3 | 7 | 3 | 26 | 4 | 19 | 5 | 14 |
| 52 | 2 | 9 | 2 | 26 | 3 | 17 | 4 | 11 | 5 | 6 | 6 | 4 |
| 51 | 2 | 15 | 3 | 6 | 4 | 0 | 4 | 23 | 5 | 21 | 6 | 21 |
| 6 | 2 | 21 | 3 | 14 | 4 | 10 | 5 | 8 | 6 | 8 | 7 | 10 |
| 61 | 3 | 1 | 3 | 22 | 4 | 20 | 5 | 19 | 6 | 22 | 8 | 0 |
| 7 | 3 | 19 | 4 | 3 | 5 | 19 | 6 | 10 | 17 | 9 | 8 | 16 |
| 8 | 3 | 20 | 4 | 10 | 5 | 12 22 | 07 | 10 | 8 | 20 | 9 | 22 |
| 81 | 3 | 26 | 5 | 0 | 6 | 5 | 7 | 13 | 8 | 24 | 10 | 12 |
| 9 | 4 | 5 | 5 | 8 | 6 | 15 | 7 | 25 | 9 | 11 | 11 | 2 |
| 91 | 4 | 11 | 5 | 16 | 6 | 25 | 8 | 10 | 9 | 26 | 11 | 18 |
| 10 | 4 | 18 | 5 | 24 | 7 | 7 | 8 | 22 | 10 | 13 | 12 | 8 |
| 101 | 4 | 24 | 6 | 5 | 7 | 17 | 9 | 6 | 11 | 0 | 12 | 24 |
| 111 | 0 | 10 | 0 | 13 | 8 | 10 | 9 | 18 | 11 | 14 | 13 | 14 |
| 12 | 5 | 16 | 7 | 21 | 8 | 20 | 10 | 15 | 12 | 15 | 14 | 20 |
| 121 | 5 | 22 | 7 | 10 | 9 | 2 | 11 | 0 | 13 | 2 | 15 | 10 |
| 13 | 6 | 1 | 7 | 18 | 9 | 12 | 11 | 12 | 13 | 17 | 15 | 26 |
| 131 | 6 | 8 | 7 | 26 | 9 | 22 | 11 | 24 | 14 | 4 | 16 | 16 |
| | | | | | | | | | | | | |
| 14 | 6 | 14 | 8 | 7 | 10 | 5 | 12 | 9 | 14 | 18 | 17 | 6 |
| 14 | 6 7 F | 14 ect. | 8 71 I | 7 lect. | 10 8 F | 5 eet. | 12 81 1 | 9 Vect. | 14 9 F | 18 eet. | 17 91 1 | 6 reet. |
| 14 Foet. | 6 7 F Yds. | 14 ect. Ft. | 8 71 1 Yds. | 7 reet. Ft. | 10 8 F) Yds. | 5 eet. Ft. | 12 81 1 Yds. | 9 Vect. Ft. | 14 9 F Yds. | 18 eet. Ft. | 17 91 1 Yds. | 6 Ft. |
| 14 Foet. 4 | 6 7 F Yds. 5 9 | 14 ect. Ft. 19 | 8 71 1 Yds. 6 | 7 Teet. 15 | 10 8 F) Yds. 7 | 5 eet. Ft. 12 | 12 811 Yds. 8 | 9 Vect. 11 | 14 9 F Yds. 9 | 18 eet. Ft. 11 | 17 9½1 Yds. 10 | 6 Feet. Ft. 14 |
| 14 Foet. 4 412 5 | 6 7 F Yds. 5 6 7 | 14 ect. Ft. 19 11 3 | 8 71 H Yds. 6 7 8 | 7 Ft. 15 10 5 | 10 8 F Yds. 7 8 9 | 5 eet. 12 10 8 | 12 81 1 Yds. 8 9 | 9 Vect. 11 12 14 | 14 9 F Yds. 9 10 | 18 eet. Ft. 11 16 21 | 17 9½1 Yds. 10 11 13 | 6 Feet. 14 22 8 |
| 14 Foet. 4 41 5 51 | 6 7 F Yds. 5 6 7 7 | 14 ect. 19 11 3 23 | 8 71 1 Yds. 6 7 8 9 | 7 Feet. 15 10 5 0 | 10 8 F) Yds. 7 8 9 10 | 5 eet. 12 10 8 6 | 12 81 1 Yds. 8 9 10 11 | 9 Vect. 11 12 14 15 | 14 9 F Yds. 9 10 11 12 | 18 eet. Ft. 11 16 21 26 | 17 9½1 Yds. 10 11 13 14 | 6 Ft. 14 22 8 12 |
| 14 Foet. 4 4 ¹ / ₂ 5 5 ¹ / ₂ 6 | 6 7 F Yds. 5 6 7 7 8 | 14 eet. Ft. 19 11 3 23 15 | 8 71 1 Yds. 6 7 8 9 9 | 7 Feet. 15 10 5 0 22 | 10 8 F) Yds. 7 8 9 10 11 | 5 eet. 12 10 8 6 5 | 12 81 1 Yds. 8 9 10 11 12 | 9 Ft. 11 12 14 15 16 | 14 9 F Yds. 9 10 11 12 14 | 18 eet. 11 16 21 26 4 | 17 9½ I Yds. 10 11 13 14 15 | 6 Ft. 14 22 8 12 20 |
| 14 Foet. 4 412 5 5 12 6 6 6 12 | 6 7 F Yds. 5 6 7 7 8 9 | 14 ect. 19 11 3 23 15 7 | 8 71 1 Yds. 6 7 8 9 9 10 | 7 Ft. 15 10 5 0 22 17 | 10 8 F Yds, 7 8 9 10 11 12 | 5 eet. 12 10 8 6 5 3 | 12 81 H Yds. 8 9 10 11 12 13 | 9 Vect. 11 12 14 15 16 18 | 14 9 F Yds. 9 10 11 12 14 15 | 18 eet. Ft. 11 16 21 26 4 9 | 17 91 1 Yds. 10 11 13 14 15 17 | 6 Feet. 14 22 3 12 20 2 |
| $ \begin{array}{c} 14 \\ \hline Foct. \\ 4 \\ 4 \\ 5 \\ 5 \\ 5 \\ 6 \\ 6 \\ 1 \\ 7 \\ 7 \\ 7 \\ 7 \\ 7 \\ 7 \\ 7 \\ 7 \\ 7 \\ 7$ | 6 7 F Yds. 5 6 7 7 8 9 9 | 14 ect. 19 11 3 23 15 7 26 | 8 71/2 1 Yds. 6 7 8 9 9 9 10 11 | 7 Ft. 15 10 5 0 22 17 12 | 10 8 F) Yds. 7 8 9 10 11 12 13 | 5 eet. 12 10 8 6 5 3 1 | 12 81 1 Yds. 8 9 10 11 12 13 14 | 9 Vect. 11 12 14 15 16 18 19 | 14 9 F Yds. 9 10 11 12 14 15 16 | 18 eet. Ft. 11 16 21 26 4 9 13 | 17 9½1 Yds. 10 11 13 14 15 17 18 | 6 Feet. Ft. 14 22 3 12 20 2 10 |
| $ \begin{array}{c c} 14 \\ \hline Foct. \\ 4 \\ 4 \\ 2 \\ 5 \\ 5 \\ 6 \\ 1 \\ 2 \\ 7 \\ 7 \\ 7 \\ 7 \\ 7 \\ 7 \\ 7 \\ 7 \\ 7 \\ 7$ | 6 7 F Yds. 5 6 7 7 8 9 9 10 | 14 eet. 19 11 3 23 15 7 26 19 | 8 71 1 Yds. 6 7 8 9 9 10 11 12 12 | 7 Feet. 15 10 5 0 22 17 12 7 9 | 10 8 F) Yds. 7 8 9 10 11 12 13 13 | 5 eet. 12 10 8 6 5 3 1 26 | 12 81 1 Yds. 8 9 10 11 12 13 14 15 10 | 9 Ft. 11 12 14 15 16 18 19 21 92 | 14 9 F Yds. 9 10 11 12 14 15 16 17 | 18 eet. Ft. 11 16 21 26 4 9 13 18 92 | 17 9½ I Yds. 10 11 13 14 15 17 18 19 | 6 Feet. Ft. 14 22 3 12 20 2 10 19 |
| 14 Foct. 4 4 412 5 512 6 612 7 712 8 81 | 6 7 F Yds. 5 6 7 7 8 9 9 10 11 12 | 14 eet. 19 11 3 23 15 7 26 19 11 3 | 8 71 I Yds. 6 7 8 9 9 10 11 12 13 13 | 7 Ft. 15 10 5 0 22 17 12 7 2 55 | 10 8 F) Yds. 7 8 9 10 11 12 13 13 14 15 | 5 eet. 12 10 8 6 5 3 1 26 24 99 | 12 81 1 Yds. 8 9 10 11 12 13 14 15 16 17 | 9 Ft. 11 12 14 15 16 18 19 21 22 93 | 14 9 F Yds. 9 10 11 12 14 15 16 17 18 20 | 18 eet. Ft. 11 16 21 26 4 9 13 18 23 | 17 91 1 Yds. 10 11 13 14 15 17 18 19 21 22 | 6 Feet. 14 22 3 12 20 2 10 19 0 8 |
| 14 Foct. 4 4 4 5 5 6 6 7 7 7 2 8 8 2 9 | 6 7 F Yds. 5 6 7 7 8 9 9 9 10 11 12 12 | 14 ect. 19 11 3 23 15 7 26 19 11 3 22 | 8 71 I Yds. 6 7 8 9 9 10 11 12 13 13 14 | 7 Ft. 15 10 5 0 22 17 12 7 2 25 20 | 10 8 F) Yds. 7 8 9 10 11 12 13 13 14 15 16 | 5 eet. 12 10 8 6 5 3 1 26 24 22 20 | 12 8 1 1 Yds. 8 9 10 11 12 13 14 15 16 17 18 | 9 Vect. 11 12 14 15 16 18 19 21 22 23 25 | 14 9 F Yds. 9 10 11 12 14 15 16 17 18 20 21 | 18 eet. Ft. 11 16 21 26 4 9 13 18 23 1 8 | 17 91 1 Yds. 10 11 13 14 15 17 18 19 21 22 23 | 6 Feet. Ft. 14 22 3 12 20 2 10 19 0 8 17 |
| 14 Foct. 4 4 5 5 5 5 6 6 1 2 7 7 2 8 8 12 9 9 15 | 6 7 F Yds. 5 6 7 7 8 9 9 10 11 12 12 13 | 14 eet. 19 11 3 23 15 7 26 19 11 3 22 15 | 8 71 I Yds. 6 7 8 9 9 10 11 12 13 13 14 15 | 7 Feet. 15 10 5 0 22 17 12 7 25 20 15 | 10 8 F) Yds. 7 8 9 10 11 12 13 13 14 15 16 17 | 5 eet. 12 10 8 6 5 3 1 26 24 22 20 19 | 12 81 1 Yds. 8 9 10 11 12 13 14 15 16 17 18 19 | 9 Pect. 11 12 14 15 16 18 19 21 22 23 25 26 | 14 9 F Yds. 9 10 11 12 14 15 16 17 18 20 21 22 | 18 eet. Ft. 11 16 21 26 4 9 13 18 23 1 6 10 | 17 91/2 11 10 11 13 14 15 17 18 19 21 22 23 24 | 6 Feet. Ft. 14 22 3 12 20 2 10 19 0 8 17 25 |
| $ \begin{array}{c} 14 \\ \hline Foet. \\ 4 \\ 4 \\ 2 \\ 5 \\ 6 \\ 6 \\ 1 \\ 7 \\ 7 \\ 1 \\ 9 \\ 9 \\ 1 \\ 10 \\ \end{array} $ | 6 7 F Yds. 5 6 7 7 8 9 9 9 10 11 12 12 13 14 | 14 ect. 19 11 3 23 15 7 26 19 11 3 22 15 7 | 8 71/2 1 Yds. 6 7 8 9 9 10 11 12 13 13 14 15 16 | 7 Ft. 15 10 5 0 22 17 12 7 2 25 20 15 10 | 10 8 F) Yds. 7 8 9 10 11 12 13 13 14 15 16 17 18 | 5 eet. 12 10 8 6 5 3 1 26 24 22 20 19 17 | 12 8 1 1 Yds. 8 9 10 11 12 13 14 15 16 17 18 19 21 | 9 Ft. 11 12 14 15 16 18 19 21 22 23 25 26 0 | 14 9 F Yds. 9 10 11 12 14 15 16 17 18 20 21 22 23 | 18 eet. Ft. 11 16 21 26 4 9 13 18 23 1 6 10 15 | 17 91 1 Yds. 10 11 13 14 15 17 18 19 21 22 23 24 26 | 6 Feet. Ft. 14 22 3 12 20 2 10 19 0 8 17 25 7 |
| 14 Foet. 4 4 4 2 5 5 6 6 6 1 7 7 7 8 1 2 9 9 1 2 10 10 12 10 10 12 10 10 10 10 10 10 10 10 10 10 | 6 7 F Yds. 5 6 7 7 8 9 9 10 11 12 12 13 14 14 | 14 eet. 19 11 3 23 15 7 26 19 11 3 22 15 7 26 | 8 71/1 Yds. 6 7 8 9 9 10 11 12 13 13 14 15 16 17 | 7 Feet. 15 10 5 0 22 17 12 7 2 25 20 15 10 5 | 10 8 F) Yds, 7 8 9 10 11 12 13 13 14 15 16 17 18 19 | 5 eet. 12 10 8 6 5 3 1 26 24 22 20 19 17 15 | 12 8 1 1 Yds. 8 9 10 11 12 13 14 15 16 17 18 19 21 22 | 9 Ft. 11 12 14 15 16 18 19 21 22 23 25 26 0 2 | 14 9 F Yds. 9 10 11 12 14 15 16 17 18 20 21 22 23 24 | 18 eet. Ft. 11 16 21 26 4 9 13 18 23 1 6 10 15 20 | 17 91 1 Yds. 10 11 13 14 15 17 18 19 21 22 23 24 26 27 | 6 Freet. 14 22 3 12 20 2 10 19 0 8 17 25 7 15 |
| 14 Foct. 4 4 12 5 5 12 6 12 7 7 12 8 12 9 12 10 10 12 11 11 | 6 7 F Yds, 5 6 7 7 8 9 9 9 10 11 12 13 14 14 15 | 14 Ft. 19 11 3 23 15 7 26 19 11 3 22 15 7 26 19 11 3 22 15 7 26 19 11 3 22 15 7 26 19 11 3 22 15 7 26 19 11 3 22 10 11 3 22 15 7 26 10 11 3 22 15 7 26 10 11 3 22 15 7 26 10 11 3 22 15 7 26 10 11 3 22 15 7 26 10 11 3 22 15 7 26 15 7 26 15 7 26 15 7 26 15 7 26 15 7 10 10 11 10 10 10 10 10 10 10 | 8 71 1 Yds. 6 7 8 9 9 10 11 12 13 13 14 15 16 17 18 | 7 Feet. 15 10 5 0 222 17 12 7 2 25 200 15 10 5 0 0 | 10 8 F) 7 8 9 10 11 12 13 13 14 15 16 17 18 19 20 | 5 Ft. 12 10 8 6 5 3 1 26 24 22 20 19 17 15 13 | 12 81 1 Yds. 8 9 10 11 12 13 14 15 16 17 18 19 21 22 23 | 9 Ft. 11 12 14 15 16 18 19 21 22 23 25 26 0 2 3 5 | 14 9 F Yds. 9 10 11 12 14 15 16 17 18 20 21 22 23 24 25 | 18 rt. 11 16 21 26 4 9 13 18 23 1 6 10 15 20 25 20 25 | 17 911 Yds. 10 11 13 14 15 17 18 19 21 22 23 24 26 27 28 20 | 6 Feet. 14 22 3 12 20 2 10 19 0 8 17 25 7 15 24 |
| 14 Foct. 4 4 12 5 5 12 6 12 7 7 12 8 12 9 12 10 10 12 11 12 10 12 11 12 | 6 7 F Yda. 5 6 7 7 8 9 9 9 10 11 12 12 13 14 14 15 6 17 | 14 Ft. 19 11 3 23 15 7 26 19 11 3 22 15 7 26 18 11 9 | 8 71/21 Yds. 6 7 8 9 9 9 10 11 11 12 13 13 14 15 16 17 18 18 19 | 7 Feet. 15 10 5 0 222 177 12 25 20 15 10 5 0 22 17 10 5 0 22 17 | 10 8 F) Yds. 7 8 9 10 11 12 13 13 14 15 16 17 18 19 20 21 | 5 Ft. 12 10 8 6 5 3 1 26 24 22 20 19 17 15 13 11 | 12 81 1 Yds. 8 9 10 11 12 13 14 15 16 17 18 19 21 22 23 24 24 25 | 9 Peet. Ft. 11 12 14 15 16 18 19 21 22 23 25 26 0 2 3 5 e | 14 9 F Yds. 9 10 11 12 14 15 16 17 18 20 21 22 23. 24 25 27 29 | 18 Ft. 11 16 21 22 4 9 13 18 23 1 6 10 15 20 25 37 7 | 17 91/17 Yds. 10 11 13 14 15 17 18 19 21 22 23 24 26 27 28 30 | 6 Feet. Ff. 14 22 3 12 20 2 2 10 19 0 8 17 25 7 15 24 5 |
| $ \begin{array}{c ccccccccccccccccccccccccccccccccccc$ | 6 7 F Yda. 5 6 7 7 8 9 9 9 10 11 12 12 13 14 14 15 16 17 17 | 14 Ft. 19 11 323 15 726 19 11 322 15 7 26 18 11 322 | 8 71/1 Yds. 6 7 8 9 9 9 10 11 12 13 13 14 15 16 17 18 18 9 90 | 7 Feet. 15 10 5 0 222 177 12 25 20 15 10 5 0 222 177 12 25 20 15 10 5 0 222 177 12 15 10 5 0 222 177 12 15 10 5 10 10 10 10 10 10 10 10 10 10 10 10 10 | 10 8 F) Yds. 7 8 9 10 11 12 13 13 14 15 16 17 18 19 20 21 222 23 | 5 Ft. 12 10 8 6 5 3 1 26 24 22 20 19 17 15 13 11 9 7 | 12 81 1 Yds. 8 9 10 11 12 13 14 15 16 17 18 19 21 22 23 24 25 26 | 9 Ft. 11 12 14 15 16 18 19 21 22 23 25 26 0 2 3 5 6 7 | 14 9 F Yds. 9 10 11 12 14 15 16 17 18 20 21 22 23 24 25 27 28 29 9 | 18 Ft. 11 16 21 22 4 9 13 18 23 1 6 10 15 20 25 3 7 12 | 17 91 17 Yds. 10 11 13 14 15 17 18 19 21 22 23 24 26 27 28 30 31 32 | 6 Ft. 14 22 3 12 20 20 20 20 20 20 10 19 0 8 17 25 7 15 24 5 14 22 |
| $ \begin{array}{c ccccccccccccccccccccccccccccccccccc$ | 6 7 F Yds, 5 6 7 7 8 9 9 9 10 11 12 12 13 14 14 15 16 17 7 18 | 14 Ft. 19 11 3 23 15 7 26 19 11 3 22 15 7 26 18 11 3 22 15 7 26 18 11 3 22 15 7 26 18 11 3 22 15 7 26 18 19 10 10 10 10 10 10 10 10 10 10 | 8 71/1 Yds. 6 7 8 9 9 9 10 11 12 13 13 14 15 16 17 18 18 19 20 20 | 7 Feet. 15 10 5 0 222 17 12 7 2 5 20 15 10 5 0 222 17 12 7 7 2 7 2 7 7 | 10 8 F Yds, 7 8 9 10 11 12 13 13 14 15 16 17 18 19 200 21 223 23 24 | 5 Ft. 12 10 8 6 5 3 1 26 22 20 10 17 15 13 11 9 7 5 | $\begin{array}{c} 12 \\ 8\frac{1}{7}1 \\ Yds. \\ 8 \\ 9 \\ 10 \\ 11 \\ 12 \\ 13 \\ 14 \\ 15 \\ 16 \\ 17 \\ 18 \\ 19 \\ 21 \\ 222 \\ 23 \\ 24 \\ 25 \\ 26 \\ 27 \\ 27 \end{array}$ | 9 Peet. Ft. 11 12 14 15 16 18 19 21 223 25 26 0 2 3 5 6 7 9 | 14 9 F Yds. 9 10 11 12 14 15 16 17 18 20 21 22 23 24 25 27 28 29 20 30 | 18 Pt. 11 16 21 26 4 9 13 18 23 16 10 15 20 25 3 7 12 17 | 17 91 11 10 11 13 14 15 17 18 19 21 22 23 24 26 27 28 30 31 32 34 | 6 Feet. 14 22 3 12 20 2 10 19 0 8 17 25 7 15 24 5 14 22 3 |
| 14 Foct. 4 4 4 5 5 6 6 7 7 1 2 8 8 2 9 9 12 10 10 10 12 12 12 12 12 13 8 | 6 7 F Yda, 5 6 7 7 8 9 9 9 10 11 12 12 13 14 14 15 16 7 7 8 9 9 9 10 11 12 12 13 14 15 16 7 7 8 9 9 9 10 11 12 12 13 14 14 15 16 7 7 7 8 9 9 9 9 10 11 12 14 14 15 16 7 7 7 8 9 9 9 10 11 12 12 14 14 15 16 17 7 7 8 9 9 9 9 10 11 12 12 12 14 14 14 14 14 14 14 14 14 14 14 14 14 | 14 Ft. 19 11 3 23 15 7 26 19 11 3 22 15 7 26 18 11 3 22 15 7 26 18 11 3 22 15 7 26 18 11 3 22 15 7 26 18 17 7 26 18 17 7 26 18 17 7 26 18 7 26 19 7 26 19 7 26 19 7 26 10 7 7 26 10 7 7 7 7 26 10 7 7 26 10 7 7 7 7 26 10 7 7 7 7 26 10 7 7 7 7 26 10 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 | 8 7% I Yds. 6 6 7 8 9 9 9 10 11 12 13 13 14 15 16 17 18 18 19 20 21 22 | $\begin{array}{c} 7\\ \hline 7\\ \hline reet.\\ 15\\ 10\\ 5\\ 0\\ 222\\ 17\\ 12\\ 7\\ 2\\ 25\\ 20\\ 15\\ 10\\ 5\\ 0\\ 222\\ 17\\ 12\\ 2\\ 7\\ 2\end{array}$ | 10 8 F Yds, 7 8 9 10 11 12 13 13 14 15 16 17 18 19 20 21 223 23 24 25 | 5 eet. 12 10 8 6 5 3 1 26 22 20 19 17 15 13 11 9 7 5 4 | $\begin{array}{c} 12\\ 8\frac{1}{7}1\\ \\ 89\\ 9\\ 10\\ 11\\ 12\\ 13\\ 14\\ 15\\ 16\\ 17\\ 18\\ 19\\ 21\\ 22\\ 23\\ 24\\ 25\\ 26\\ 27\\ 28\end{array}$ | 9 Peet. Ft. 11 12 14 15 16 18 19 21 223 25 26 0 2 3 5 6 7 9 10 | 14 9 F Yds. 9 10 11 12 14 15 16 17 18 20 21 22 3. 24 25 27 28 29 30 31 | 18 Pt. 11 16 21 26 4 9 13 18 23 1 6 10 15 20 25 3 7 12 17 22 | 17 91 11 10 11 13 14 15 17 18 19 21 22 23 24 26 27 28 30 31 32 23 34 35 | 6 6 6 7 7 14 23 3 12 20 2 10 19 0 8 17 25 7 5 14 22 3 12 20 8 17 25 7 15 20 8 17 20 8 17 20 8 17 20 8 17 20 8 17 20 8 17 20 8 17 20 8 17 20 8 17 20 8 17 20 8 17 20 8 17 20 8 17 20 8 17 25 7 15 25 15 25 15 25 15 25 15 25 15 25 15 15 25 15 15 25 15 15 15 15 15 15 15 15 15 1 |
| $\begin{array}{c c} 14 \\ \hline \\ $ | 6 7 F 5 6 7 7 8 9 9 9 10 11 12 13 14 15 16 17 17 18 19 19 | 14 ect. Ft. 19 11 3 23 15 7 26 19 11 3 22 25 7 26 18 11 3 22 24 7 26 | 8 7% I Yds. 6 6 7 8 9 9 9 10 11 12 13 13 14 15 16 17 18 18 19 20 21 22 22 | 7 Feet. 15 10 5 0 227 17 2 25 20 15 10 5 0 222 17 12 7 2 25 10 5 0 222 17 12 7 2 25 20 5 10 5 22 2 15 10 22 2 5 20 10 22 7 2 2 5 20 10 22 2 2 5 20 10 22 2 2 5 20 10 22 2 2 5 20 10 22 2 2 5 20 10 22 2 2 5 20 10 22 2 2 5 20 10 22 2 2 5 20 10 22 2 2 5 20 10 22 2 2 5 20 10 2 2 2 5 2 2 5 2 2 5 2 2 5 2 2 5 2 2 5 2 2 5 2 2 5 2 2 5 2 2 5 2 | 10 8 F 7 7 8 9 10 11 12 13 13 14 15 16 17 18 19 20 21 22 23 24 25 26 | 5 eet. 12 10 8 6 5 3 1 26 24 22 20 9 17 15 13 11 9 7 5 4 2 | 12 8 t I Yds. 8 9 10 11 12 13 14 15 16 17 18 19 21 22 23 24 25 26 27 28 29 | 9 Feet. Ft. 11 12 14 15 16 18 19 21 22 23 25 26 0 2 3 5 6 7 9 10 11 | 14 9 F Yds. 9 10 11 12 14 16 16 17 18 20 21 22 3. 23 24 25 27 28 29 30 31 33 | 18 eet. Ft. 11 16 21 26 4 9 13 18 23 1 6 10 15 20 25 3 7 12 17 22 0 | 17 91 17 Yda. 10 11 13 14 15 17 18 19 21 22 23 24 26 27 28 30 81 32 34 35 36 | 6 freet. Ft. 14 22 3 12 20 2 10 10 0 8 17 25 7 15 24 25 5 14 22 3 19 20 2 5 14 22 20 2 5 14 22 20 2 5 14 22 20 2 20 2 20 2 20 2 20 2 20 2 20 |

| TABLE IV.—CUBIC CONTENT OF CYLINDRICAL TANKS. 45 | | | | | | | | | | | | |
|--|--|--|---|--|--|---|--|---|--|--|--|---|
| CH. | E DIAMETER. | | | | | | | | | | | |
| DEP | 10 H | eet. | 101 1 | Feet. | 11 F | 'eet. | 113 1 | Feet. | 12 F | eet. | 121] | Feet. |
| Feet. | Yds. | Ft. | Yds. | Ft. | Yds. | Ft. | Yds. | Ft. | Yds. | Ft. | Yds. | Ft. |
| 4 | 11 | 17 | 12 | 19 | 14 | 22 | 15 | 10 | 16 | 20 | 18 | 10 |
| 42 | 10 | 15 | 12 | 12 | 17 | 16 | 10 | 6 | 20 | 20 | 20 | 12 |
| 51 | 16 | 0 | 17 | 17 | 19 | 10 | 21 | 4 | 23 | 1 | 25 | 0 |
| 6 | 17 | 12 | 19 | 7 | 21 | 3 | 23 | 2 | 25 | 4 | 27 | 7 |
| 61 | 18 | 25 | 20 | 23 | 22 | 24 | 25 | 0 | 27 | 6 | 29 | 15 |
| 7. | 20 | 10 | 22 | 12 | 24 | 17 | 26 | 25 | 29 | 9 | 31 | 22 |
| 71 | 21 | 22 | 24 | 1 | 26 | 11 | 28 | 23 | 31 | 11 | 34 | 2 |
| 8 | 23 | 7 | 25 | 18 | 28 | 4 | 30 | 21 | 33 | 14 | 36 | 10 |
| 81 | 24 | 20 | 27 | 7 | 29 | 25 | 32 | 19 | 35 | 16 | 38 | 17 |
| 9 | 26 | 5 | 28 | 23 | 31 | 18 | 34 | 17 | 37 | 19 | 40 | 24 |
| 91 | 27 | 17 | 30 | 13 | 33 | 12 | 36 | 15 | 39 | 21 | 43 | 5 |
| 10 | 29 | 2 | 32 | 2 | 35 | 5 | 38 | 13 | 41 | 24 | 45 | 12 |
| 101 | 30 | 15 | 33 | 18 | 36 | 26 | 40 | 11 | 44 | 0 | 47 | 20 |
| 11 | 32 | 10 | 30 | 04 | 38 | 19 | 42 | 9 | 46 | 2 | 50 | 0 |
| 112 | 00 | 04 | 00 | 12 | 20 | 10 | 22 | 0 | 90 | 0 | 02 | 1 |
| 12 | 02 | 10 | 10 | 10 | 44 | 0 | 40 | 2 | 50 | 10 | 01 | 10 |
| 123 | 37 | 22 | 41 | 10 | 45 | 20 | 50 | 0 | 54 | 10 | 50 | 22 |
| 131 | 30 | 7 | 43 | 8 | 47 | 14 | 51 | 25 | 58 | 15 | 61 | 10 |
| 100 | 00 | | | | | | | | | | | |
| 14 | 40 | 20 | 44 | 24 | 49 | 7 | 53 | 23 | 58 | 17 | 63 | 17 |
| 14 | 40 | 20 | 44 | 24 | 49 | 7 | 53 | 23 | 58 | 17 | 63 | 17 |
| 14 | 40 13 I | 20 Feet. | 44 131 | 24 Feet. | 49 | 7 Feet. | 53 141 | 23 Feet. | 58 | 17 Feet. | 63 15} | 17 Feet. |
| 14 Feet. | 40 13 I Yds. | 20 Feet. | 44 131 | 24 Feet. | 49 141 Yds. | 7 Feet. Ft. | 53 141 | 23 Feet. Ft. | 58 15 1 Yds. | 17 Feet. Ft. | 63 15} Yds. | 17 Feet. |
| 14 Feet. 4 | 40 13 I Yds. 19 99 | 20 feet. 18 | 44 131 Yds. 21 | 24 Feet. Ft. 6 | 49 141 Yds. 22 | 7 Feet. Ft. 22 | 53 141 Yds. 24 | 23 Feet. 13 | 58 151 Yds. 26 | 17 Feet. 5 | 63 153 Yds. 27 | 17 Feet. Ft. 26 |
| 14 Feet. 4 412 5 | 40 13 I Yds. 19 22 94 | 20 Feet. 18 3 16 | 44 131 Yds. 21 23 26 | 24 Feet. 6 23 14 | 49 141 Yds. 22 25 98 | 7 Feet. 22 18 14 | 53 141 Yds. 24 27 30 | 23 Feet. 13 14 16 | 58 151 Yds. 26 29 99 | 17 Feet. 5 12 | 63 15} Yds. 27 31 | 17 Feet. 26 12 |
| 14 Feet. 4 41 5 51 | 40 13 I Yds. 19 22 24 27 | 20 Feet. 18 3 16 1 | 44 131 Yds. 21 23 26 29 | 24 Feet. Ft. 6 23 14 4 | 49 141 Yds. 22 25 28 31 | 7 Feet. 22 18 14 10 | 53 14½ Yds. 24 27 30 83 | 23 Feet. 13 14 16 17 | 58 151 Yds. 26 29 82 86 | 17 Feet. 5 12 20 0 | 63 153 Yds. 27 31 34 38 | 17 Feet. 26 12 25 12 |
| 14 Feet. 4 412 5 512 6 | 40 13 I Yds. 19 22 24 27 29 | 20 Feet. 18 3 16 1 13 | 44 131 Yds. 21 23 26 29 31 | 24 Feet. 6 23 14 4 22 | 49 141 Yds. 22 25 28 31 34 | 7 Feet. 22 18 14 10 6 | 53 141 Yds. 24 27 30 33 36 | 23 Feet. 13 14 16 17 19 | 58 151 Yds. 26 29 32 36 39 | 17 Feet. 5 12 20 0 7 | 63 15} Yds. 27 31 34 38 41 | 17 Feet. 26 12 25 12 25 |
| 14 Feet. 4 4 5 5 5 2 6 6 1 | 40 13 I Yds. 19 22 24 27 29 31 | 20 Feet. 18 3 16 1 13 26 | 44 13½ Yds. 21 23 26 29 31 34 | 24 Feet. 6 23 14 4 22 12 | 49 141 Yds. 22 25 28 31 34 37 | 7 Feet. 22 18 14 10 6 2 | 53 14½ 24 27 30 33 36 39 | 23 Feet. 13 14 16 17 19 20 | 58 151 Yds. 26 29 82 36 39 42 | 17 Feet. 5 12 20 0 7 15 | 63 15} Yds. 27 31 34 38 41 45 | 17 Feet. 26 12 25 12 25 12 |
| 14 Peet. 4 412 512 6 612 7 | 40 13 I Yds. 19 22 24 27 29 31 34 | 20 Feet. 18 3 16 1 13 26 11 | 44 13½ Yds. 21 23 26 29 31 34 37 | 24 Feet. 6 23 14 4 22 12 3 | 49 141 Yds. 22 25 28 31 34 37 39 | 7 Feet. 22 18 14 10 6 2 25 | 53 141 Yds. 24 27 30 33 36 39 42 | 23 Feet. 13 14 16 17 19 20 22 | 58 151 Yds. 26 29 32 36 39 42 45 | 17 Feet. 5 12 20 0 7 15 22 | 63 15} Yds. 27 31 34 38 41 45 48 | 17 Feet. 26 12 25 12 25 12 25 11 25 |
| 14 Feet. 4 412 512 613 712 | 40 13 I Yds. 19 22 24 27 29 31 34 36 | 20 Feet. 18 3 16 1 13 26 11 23 | 44 13½ Yds. 21 23 26 29 31 34 37 39 | 24 Feet. 6 23 14 4 22 12 3 21 | 49 141 Yds. 22 25 28 31 34 37 39 42 | 7 Feet. 22 18 14 10 6 25 25 21 | 53 143 24 27 30 33 36 39 42 45 | 23 Feet. 13 14 16 17 19 20 22 23 | 58 151 Yds. 26 29 32 36 39 42 45 49 | 17 Feet. 5 12 20 0 7 15 22 2 | 63 153 Yds. 27 31 34 38 41 45 48 52 | 17 Feet. 26 12 25 12 25 11 25 11 25 11 |
| 14 Peet. 4 4 5 5 5 5 6 6 7 7 2 8 | 40 13 I Yds. 19 22 24 27 29 31 34 36 39 | 20 Feet. 18 3 16 1 13 26 11 23 9 | 44 13½ Yds. 21 23 26 29 31 34 37 39 42 | 24 Feet. Ft. 6 23 14 4 22 12 3 21 11 | 49 141 Yds. 22 25 28 31 34 37 39 42 45 | 7 Feet. 22 18 14 10 6 2 25 21 17 | 53 141 24 27 30 33 36 39 42 45 48 | 23 Feet. 13 14 16 17 19 20 22 23 25 | 58 151 Yds. 26 29 32 36 39 42 45 49 52 | 17 Feet. 5 12 20 0 7 15 22 2 10 | 63 153 Yds. 27 31 34 38 41 45 48 52 55 | 17 Feet. 26 12 25 12 25 12 25 11 25 11 25 11 25 |
| 14 Peet. 4 4 5 5 5 6 6 7 7 7 8 8 12 | 40 13 I Yds. 19 22 24 27 29 31 34 36 39 41 | 20 Feet. 18 3 16 1 13 26 11 23 9 21 | 44 13½ Yds. 21 23 26 29 31 34 37 39 42 45 | 24 Feet. 6 23 14 4 22 12 3 21 11 21 | 49 141 Yds. 22 25 28 31 34 37 39 42 45 48 | 7 Feet. 22 18 14 10 6 2 5 21 17 12 | 53 143 Yds. 24 27 30 33 36 39 42 45 48 52 | 23 Feet. 13 14 16 17 19 20 22 23 25 0 | 58 151 Yds. 26 29 32 36 39 42 45 49 52 55 | 17 Feet. 5 12 20 0 7 15 22 2 10 17 | 63 15} Yds. 27 31 34 38 41 45 52 55 59 | 17 Feet. 26 12 25 12 25 11 25 11 25 11 25 11 |
| 14 Feet. 4 4 5 5 2 6 6 12 7 7 12 8 8 2 9 | 40 13 I Yds. 19 22 24 27 29 31 34 36 39 41 44 | 20 Feet. 18 3 16 1 13 26 11 23 9 21 7 7 | 44 135 21 23 26 29 31 34 37 39 42 45 47 | 24 Feet. 6 23 14 4 22 12 3 21 11 2 19 | 49 141 Yds. 22 25 28 31 34 37 39 42 45 48 51 | 7 Feet. 22 18 14 10 6 25 21 17 12 8 | 53 14 ¹ Yds. 24 27 30 33 36 39 42 45 45 52 55 | 23 Feet. 13 14 16 17 19 20 22 23 25 0 1 | 58 151 Yds. 26 29 32 36 39 42 45 49 52 55 58 | 17 Feet. 5 12 20 0 7 15 22 2 10 17 24 | 63 15} Yds. 27 31 34 38 41 45 48 52 55 59 62 | 17 Feet. 26 12 25 12 25 11 25 11 25 11 25 11 25 11 25 |
| 14 Feet. 4 4 5 5 5 2 6 6 12 7 7 12 8 8 12 9 9 12 | 40 13 I Yds. 19 22 24 27 29 31 34 36 39 41 44 46 19 | 20 Feet. 18 3 16 1 13 26 11 23 9 21 7 19 | 44 134 Yds. 21 23 26 29 31 34 37 39 42 45 47 50 | 24 Feet. 6 23 14 4 22 12 3 21 11 2 19 10 | 49 141 Yds. 22 25 28 31 34 37 39 42 45 48 51 54 | 7 Feet. 22 18 14 10 6 2 25 21 17 12 8 4 | 53 143 24 27 30 33 36 39 42 45 48 52 55 58 | 23 Feet. 13 14 16 17 19 20 22 23 25 0 1 3 | 58 15 1 Yds. 26 29 32 36 39 42 45 49 52 55 58 62 | 17 Feet. 5 12 20 0 7 15 22 2 10 17 24 5 | 63 153 Yds. 27 31 34 38 41 45 48 52 55 59 62 66 | 17 Feet. 26 12 25 12 25 11 25 11 25 11 25 11 25 11 24 11 |
| 14 Feet. 4 4 5 5 5 5 2 6 12 6 12 6 12 7 7 7 12 8 8 12 9 9 12 10 10 10 10 10 10 10 10 10 10 | 40 13 I Yds. 19 22 24 27 29 31 34 36 39 41 44 46 49 | 20 Feet. 18 3 16 1 13 26 11 23 9 21 7 19 4 | 44 134 Yds. 21 23 26 29 31 34 37 39 42 45 47 50 53 | 24 Feet. 6 23 14 4 22 12 3 21 11 2 19 10 0 | 49 141 Yds. 22 25 28 31 34 37 39 42 45 48 51 54 57 | 7 Feet. 22 18 14 10 6 25 21 17 12 8 4 0 | 53 143 24 27 30 33 36 39 42 45 48 52 55 58 61 | 23 Feet. 13 14 16 17 19 20 22 23 25 0 1 3 4 | 58 15 1 Yds. 26 29 32 36 39 42 45 49 52 55 58 62 65 | 17 Freet. 5 12 20 0 7 15 22 2 10 17 24 5 12 | 63 153 Yds. 27 31 34 38 41 45 52 55 59 62 66 69 | 17 Feet. 26 12 25 12 25 11 25 11 25 11 25 11 25 11 25 11 25 |
| $\begin{array}{c} 14 \\ \hline \\ \hline \\ \hline \\ \hline \\ \\ \hline \\ \\ \\ \\ \\ \\ \\ \\ $ | 40 13 I Yds. 19 22 24 27 29 31 34 36 39 41 44 46 45 51 | 20 Feet. 18 3 16 1 13 26 1 13 26 11 23 9 21 7 7 9 21 7 9 4 17 9 4 7 | 44 133 21 23 26 29 31 34 37 39 42 45 47 50 53 55 55 | 24 Feet. Fr. 6 23 14 4 22 21 21 21 11 2 19 10 0 18 | 49 141 Yds. 22 25 28 31 34 37 39 42 45 48 51 54 57 59 | 7 Ft. 222 18 14 10 6 22 23 21 17 12 8 4 0 23 21 21 | 53 14½ Yds. 24 27 30 33 36 39 42 45 48 52 55 58 61 64 64 | 23 Feet. 13 14 16 17 19 20 22 23 25 0 1 3 4 6 | 58 15 I Yds. 26 29 32 36 39 42 45 49 52 55 58 62 65 68 82 | 17 Feet. 5 12 20 0 7 15 22 2 10 17 24 5 12 20 0 7 15 22 2 10 17 24 5 20 0 7 | 63 151 Yds. 27 31 34 38 41 45 48 52 55 59 62 66 69 73 | 17 Feet. 26 12 25 12 25 11 25 11 25 11 25 11 25 11 25 11 25 |
| $\begin{array}{c} 14 \\ \hline \\ \hline \\ \hline \\ \hline \\ \hline \\ \hline \\ \\ \hline \\ \\ \\ \\ $ | 40 13 1 Yds. 19 22 24 27 29 31 34 36 39 41 44 46 49 51 54 56 | 20 Feet. Ft. 18 3 16 1 13 26 11 23 9 21 7 19 4 17 24 | $\begin{array}{c} 44\\ 131\\ \hline\\ 131\\ 23\\ 26\\ 29\\ 31\\ 34\\ 37\\ 39\\ 42\\ 45\\ 47\\ 50\\ 53\\ 55\\ 58\\ 80\\ \end{array}$ | 24 Feet. 6 23 14 4 22 12 3 21 11 2 19 10 0 18 9 9 0 | 49 141 Yds. 22 25 28 31 34 37 39 42 45 48 51 54 45 57 59 62 | 7 Fter 18 14 10 6 25 21 17 12 8 4 0 23 19 | 53 14½ Yds. 24 27 30 33 36 39 42 45 48 52 55 58 61 64 467 70 | 23 Feet. 13 14 16 17 19 20 22 23 25 0 1 3 4 6 7 7 | 58 151 Yds. 26 29 32 36 39 42 45 49 52 55 58 62 65 68 72 2 | 17 Feet. Ft. 5 20 0 7 15 22 2 10 17 24 5 12 20 0 0 7 5 22 2 0 0 7 5 22 2 0 0 7 5 22 2 0 0 7 5 22 2 0 0 7 5 20 0 0 7 5 5 20 0 0 7 5 5 20 0 0 7 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 | $\begin{array}{c} 63\\ 63\\ 15_{\frac{1}{2}}\\ 7\\ 34\\ 38\\ 41\\ 45\\ 52\\ 55\\ 59\\ 62\\ 66\\ 69\\ 73\\ 76\\ 6\end{array}$ | 17 Feet. 26 12 25 12 25 11 25 11 25 11 25 11 25 11 25 11 24 10 24 |
| $\begin{array}{c} 14 \\ \hline \\ \\ \hline \\$ | $\begin{array}{r} 40\\ 131\\ 19\\ 22\\ 24\\ 27\\ 29\\ 31\\ 34\\ 36\\ 39\\ 41\\ 44\\ 46\\ 49\\ 51\\ 54\\ 56\\ 50\end{array}$ | 20 Feet. Ft. 18 3 16 1 13 26 11 23 9 21 7 19 4 17 2 14 0 10 10 10 10 10 10 10 10 10 | 44 13½ Yds. 21 23 26 29 31 34 37 39 42 45 45 45 45 55 58 60 29 | 24 Feet. 6 23 14 4 22 12 3 21 11 2 19 10 0 18 9 26 | 49 141 Yds. 22 25 28 31 34 37 39 42 45 45 51 54 57 59 62 65 65 | 7 Feet. 122 18 14 10 6 25 21 17 12 8 4 0 23 19 15 | 53 14½ Yds. 24 27 30 33 36 39 42 45 55 55 58 61 64 467 70 70 | 23 Feet. 13 14 16 17 19 20 223 25 0 1 3 4 6 7 9 | 58 15 1 Yds. 26 29 32 30 42 45 52 55 58 62 65 68 72 75 55 | 17 Feet. 12 20 0 7 15 22 2 10 17 24 5 12 20 0 7 7 15 | 63 151 Yds. 27 31 34 38 411 45 55 55 59 62 66 69 73 76 80 62 | 17 Feet. 26 12 25 12 25 11 25 11 25 11 25 11 25 11 25 11 24 10 24 10 24 10 |
| 14 Feet. 4 4 1 2 5 1 2 6 6 1 2 7 1 2 8 8 1 2 9 9 1 0 1 0 1 2 1 1 1 1 2 1 1 2 1 2 1 | 40 13 1 Yds. 19 22 24 27 29 31 34 36 39 41 44 46 49 51 54 56 59 61 | 20 Feet. 18 3 16 1 13 26 11 23 9 21 7 19 4 17 2 14 0 12 12 12 13 15 16 11 12 15 16 11 12 15 16 11 12 15 16 11 12 15 16 11 12 15 16 11 12 15 16 11 12 15 16 11 12 15 16 11 12 15 16 11 12 15 16 17 17 17 17 17 17 17 17 17 17 | $\begin{array}{c} 44\\ 13_{\frac{1}{2}}\\ 13_{\frac{1}{2}}\\ 21\\ 23\\ 26\\ 29\\ 31\\ 34\\ 37\\ 39\\ 42\\ 45\\ 45\\ 45\\ 45\\ 50\\ 53\\ 55\\ 58\\ 60\\ 63\\ 60\\ 63\\ 66\\ 66\end{array}$ | 24 Feet. 6 233 14 4 22 21 21 21 11 2 19 10 0 18 9 266 17 7 | 49 141 Yds. 22 25 28 31 34 37 39 42 45 45 45 51 54 57 59 62 65 63 63 71 | 7 Feet. Ft. 22 18 14 10 6 25 21 17 12 8 4 0 23 19 15 11 7 | $\begin{array}{c} 53\\ 14\frac{1}{2}\\ 7ds.\\ 24\\ 27\\ 30\\ 33\\ 36\\ 39\\ 42\\ 45\\ 45\\ 55\\ 58\\ 61\\ 64\\ 67\\ 70\\ 73\\ 8\\ 7a\end{array}$ | 23 Feet. 13 14 16 17 19 20 223 25 0 1 3 4 6 7 9 9 11 | 58 15 1 Yds. 26 29 32 30 42 45 55 55 55 62 65 68 72 75 78 81 15 1 | 17 Feet. 12 20 0 7 15 22 2 10 17 24 5 12 20 0 7 15 22 2 10 17 24 5 12 20 0 7 7 15 22 2 9 0 0 7 7 15 22 20 0 7 7 15 22 20 0 7 7 15 22 20 0 7 7 15 22 20 0 7 7 15 22 20 0 7 7 15 22 20 0 7 7 15 22 20 0 7 7 15 22 20 0 7 7 15 22 20 0 7 7 15 22 20 0 7 7 15 22 20 0 7 7 15 22 20 0 7 7 15 22 20 0 7 7 15 22 20 0 7 7 15 22 20 0 7 7 15 22 20 0 7 7 15 22 20 0 7 7 15 20 15 20 20 15 20 15 20 15 20 15 20 17 20 10 17 20 17 20 10 17 20 10 1 17 20 10 10 10 10 10 10 10 10 10 10 10 10 10 | 63 151 Yds. 27 31 34 38 411 45 55 59 62 66 69 73 76 80 83 87 | 17 Feet. 26 12 25 12 25 11 25 11 25 11 25 11 25 11 25 11 25 11 25 11 25 11 25 11 25 11 25 11 25 11 25 12 25 11 25 12 25 12 25 12 25 12 25 12 25 11 25 12 25 11 2 1 11 25 11 2 25 11 2 1 2 |
| 14 Feet. 4 4 12 5 12 6 6 12 7 7 12 8 12 9 9 12 10 10 12 11 12 12 12 13 | $\begin{array}{r} 40\\ 131\\ 19\\ 22\\ 24\\ 27\\ 29\\ 31\\ 34\\ 36\\ 39\\ 41\\ 44\\ 46\\ 49\\ 51\\ 54\\ 56\\ 59\\ 61\\ 54\\ 56\\ 63\\ 83\\ 63\\ 61\\ 59\\ 61\\ 63\\ 83\\ 63\\ 63\\ 63\\ 63\\ 63\\ 63\\ 63\\ 63\\ 63\\ 6$ | 20 Feet. 18 3 16 11 23 9 21 7 19 4 17 2 14 0 12 25 25 | $\begin{array}{c} 44\\ 13_{\frac{1}{2}}\\ 21\\ 23\\ 26\\ 29\\ 31\\ 34\\ 37\\ 39\\ 42\\ 45\\ 47\\ 50\\ 53\\ 55\\ 58\\ 60\\ 63\\ 66\\ 68\\ 8\end{array}$ | 24 Feet. 6 23 14 4 22 21 21 11 2 19 10 0 18 9 26 17 7 25 | 49 141 Yds. 22 25 28 31 34 45 48 51 54 57 50 62 65 68 71 | 7 Feet. Ft. 22 18 14 10 6 2 25 11 12 8 4 0 23 19 15 11 7 9 | 53 14½ Yds. 24 27 30 33 36 39 42 45 55 58 61 64 67 70 73 76 61 70 73 76 | 23 Feet. 13 14 16 17 19 20 22 23 25 0 1 3 4 6 7 9 11 12 24 | 58 15 1 Yda. 26 29 32 30 42 45 49 52 55 58 62 65 65 65 72 75 78 81 25 58 29 55 58 29 55 58 29 58 29 58 29 58 58 58 58 58 58 58 58 58 58 | 17 Feet. 5 12 20 0 7 5 22 2 0 7 5 22 2 0 7 15 22 2 0 0 7 7 15 22 2 0 0 7 7 15 22 2 0 0 7 7 15 22 20 0 7 7 15 22 0 0 7 7 15 20 0 7 7 10 20 0 7 7 10 20 0 7 7 10 20 0 7 7 10 20 0 7 7 10 20 0 7 7 10 20 0 7 7 10 20 0 7 7 10 20 0 7 7 10 20 0 7 7 10 20 0 7 7 10 20 0 7 7 10 20 0 7 7 10 20 0 7 7 10 20 10 7 10 20 10 10 10 20 10 10 10 10 10 10 10 10 10 10 10 10 10 | 63 151 Yds. 27 31 34 38 41 45 45 55 59 62 66 97 37 6 80 83 87 0 | 17 Feet. 26 12 25 12 25 11 25 11 25 11 25 11 25 11 25 11 24 10 23 10 23 10 24 |
| $\begin{array}{c c} 14 \\ \hline \\ \hline \\ \hline \\ Feet. \\ 4 \\ 4 \\ 5 \\ 5 \\ 5 \\ 5 \\ 5 \\ 5 \\ 6 \\ 6 \\ 6 \\ 7 \\ 7 \\ 1 \\ 2 \\ 9 \\ 9 \\ 9 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 2 \\ 2 \\ 1 \\ 1 \\ 1$ | $\begin{array}{r} 40\\ \hline 131\\ 9\\ 224\\ 27\\ 29\\ 31\\ 34\\ 36\\ 39\\ 41\\ 446\\ 49\\ 51\\ 54\\ 56\\ 59\\ 61\\ 63\\ 66\\ 66\end{array}$ | 20 Freet. Ft. 18 3 16 1 13 26 11 23 9 21 7 9 21 7 9 21 7 9 21 7 9 21 7 9 21 7 9 21 7 9 21 7 9 21 7 9 21 7 9 21 7 9 21 10 9 21 10 9 21 10 9 20 10 10 10 10 10 10 10 10 10 10 10 10 10 | 44 13 ¹ / ₂ 21 23 26 29 31 34 37 39 42 45 47 50 53 55 58 60 63 66 68 71 | $\begin{array}{c} 24 \\ \\ \text{Feet.} \\ \hline \\ \text{F} \\ 6 \\ 23 \\ 14 \\ 4 \\ 22 \\ 12 \\ 3 \\ 21 \\ 11 \\ 2 \\ 19 \\ 10 \\ 0 \\ 18 \\ 9 \\ 26 \\ 17 \\ 7 \\ 25 \\ 15 \\ 15 \\ \end{array}$ | $\begin{array}{c} 49\\ \hline 49\\ \hline 141\\ \hline 9\\ 22\\ 25\\ 28\\ 31\\ 34\\ 37\\ 39\\ 42\\ 45\\ 48\\ 51\\ 54\\ 57\\ 59\\ 62\\ 65\\ 68\\ 71\\ 74\\ 76\\ 76\end{array}$ | 7 Freet. 222 18 14 10 6 2 25 21 17 12 8 4 0 23 19 15 11 7 3 96 | 53 14½ Yds. 24 27 30 33 36 52 55 58 61 64 67 79 32 76 79 32 | $\begin{array}{c} 23 \\ \hline \text{Feet.} \\ 13 \\ 14 \\ 16 \\ 17 \\ 19 \\ 20 \\ 223 \\ 255 \\ 0 \\ 1 \\ 3 \\ 4 \\ 6 \\ 7 \\ 9 \\ 11 \\ 12 \\ 14 \\ 15 \end{array}$ | 58 15 1 Yda. 26 29 32 30 42 45 49 52 55 58 62 65 68 72 75 78 81 85 92 | 17 Freet. 5 12 20 0 7 15 22 2 10 17 24 5 12 20 0 7 15 22 20 0 7 15 22 20 0 7 15 22 20 0 7 15 22 20 0 7 15 22 20 0 7 7 15 22 20 0 7 7 15 22 20 0 7 7 15 22 20 0 7 7 15 22 20 0 7 7 15 22 20 0 7 7 15 22 20 0 7 7 15 22 20 0 7 7 15 22 20 0 7 7 15 22 20 0 7 7 15 22 20 0 7 7 15 22 20 0 7 7 15 22 20 0 7 7 15 22 20 0 7 7 15 22 20 0 7 7 15 20 20 15 20 20 15 20 15 20 15 20 15 20 15 20 15 20 20 15 20 15 20 20 15 20 20 15 20 20 15 20 15 20 15 20 15 20 15 20 15 20 15 20 15 20 15 20 15 20 15 20 15 20 15 20 15 15 20 15 20 15 15 20 15 20 15 15 20 15 20 15 20 15 20 15 20 15 20 15 20 15 20 15 20 15 20 15 20 15 20 15 20 15 20 15 20 20 15 20 15 20 15 20 15 20 15 20 15 20 15 20 15 20 15 20 15 20 15 20 15 20 15 20 15 15 15 15 15 15 15 15 15 15 15 15 15 | 63 151 Yds. 277 31 34 38 41 45 45 55 59 62 66 69 62 66 80 83 87 90 04 | 17 Feet. 266 12 25 12 25 11 25 11 25 11 25 11 25 11 25 11 24 10 23 10 23 10 23 0 |
| $\begin{array}{c c} 14 \\ \hline \\ $ | $\begin{array}{r} 40\\ \hline 131\\ Yds.\\ 19\\ 22\\ 22\\ 24\\ 27\\ 29\\ 31\\ 34\\ 36\\ 39\\ 41\\ 44\\ 46\\ 49\\ 51\\ 54\\ 56\\ 59\\ 61\\ 63\\ 66\\ 8\end{array}$ | 20 Feet. 18 3 16 1 13 26 11 23 9 21 7 19 4 17 2 14 0 12 25 10 0 22 | $\begin{array}{c} 44\\ \hline 13_{\frac{1}{2}} :\\ Yds.\\ 21\\ 23\\ 26\\ 29\\ 31\\ 37\\ 39\\ 42\\ 45\\ 45\\ 45\\ 45\\ 45\\ 50\\ 53\\ 55\\ 58\\ 60\\ 63\\ 66\\ 68\\ 71\\ 4\end{array}$ | $\begin{array}{c} 24\\ \\ \hline \\ Feet.\\ \\ \hline \\ Ft.\\ \\ 6\\ 23\\ 14\\ 4\\ 22\\ 12\\ 3\\ 21\\ 1\\ 1\\ 1\\ 1\\ 9\\ 10\\ 0\\ 18\\ 9\\ 26\\ 17\\ 7\\ 25\\ 15\\ 6\end{array}$ | $\begin{array}{c} 49\\ \hline 141\\ \hline 141\\ \hline 22\\ 25\\ 28\\ 31\\ 34\\ 37\\ 39\\ 42\\ 45\\ 51\\ 54\\ 57\\ 59\\ 62\\ 68\\ 71\\ 74\\ 76\\ 68\\ 71\\ 74\\ 76\\ 70\\ 9\end{array}$ | 7 Freet. 222 18 14 10 6 2 25 21 11 12 8 4 0 23 19 15 11 7 3 26 99 | $\begin{array}{c} 53\\ \hline 14\frac{1}{2}\\ \hline Yds.\\ 24\\ 27\\ 30\\ 33\\ 36\\ 39\\ 42\\ 45\\ 55\\ 58\\ 61\\ 64\\ 67\\ 70\\ 73\\ 76\\ 79\\ 82\\ 55\\ 58\\ 61\\ 84\\ 70\\ 73\\ 76\\ 82\\ 85\\ 58\\ 70\\ 79\\ 82\\ 55\\ 85\\ 76\\ 79\\ 82\\ 85\\ 85\\ 85\\ 85\\ 85\\ 85\\ 85\\ 85\\ 85\\ 85$ | 23 Freet. Ft. 13 14 16 17 19 20 22 23 25 0 1 3 4 6 6 7 9 11 12 14 15 17 | 58 15 1 Yds. 26 29 32 36 30 42 45 45 45 55 58 62 65 68 72 75 78 81 85 88 91 | 17 Feet. 5 12 20 0 7 15 22 2 10 17 24 5 22 20 0 7 15 22 20 0 7 15 22 20 0 7 15 22 20 0 7 15 22 20 0 7 15 22 20 0 7 15 22 20 0 7 7 15 20 0 7 7 15 20 0 7 7 15 20 0 7 7 15 20 0 7 7 15 20 0 7 7 15 20 20 0 7 7 15 20 20 0 7 7 15 20 20 0 7 7 15 20 20 0 7 7 15 20 20 0 7 7 15 20 20 0 7 7 15 20 20 15 20 20 15 20 20 15 15 20 15 15 15 15 15 15 15 15 15 15 15 15 15 | 63 15½ Yds. 27 31 34 45 48 52 59 62 66 69 73 76 80 83 87 90 94 97 | 17 Feet. 26 12 25 12 25 12 25 11 25 11 25 11 25 11 25 11 25 11 25 11 25 11 25 11 25 11 25 11 25 12 25 11 25 12 25 11 25 12 25 11 25 25 11 25 25 11 25 25 11 25 25 11 25 25 11 25 25 11 25 25 25 25 25 25 25 25 25 25 25 25 25 |

TABLE V.

Shows the number of Imperial gallons that tanks of a chroutler, square, or oblong form will contain; having them content or capacity given in cubic yards and feet, from 1 foot to 500 yards.

Ture content or capacity of circular tanks, having the circumference and depth given, is readily found in eubic yards and feet by Table 1; and the content of square or oblong tanks, the length, breadth, and depth being given, by Table 11; the keight in these Tables being reckoned the depth of the tank.

Table IV. shows the content of circular tanks, having the diameter and depth given, in cubic yards and feet.

The cubic content having been found by these Tables, or otherwise, the capacity in Imperial gallons will be shown by the present Table.

In calculating the Table, fractions of half a gallon, and under, are neglected; when above half a gallon, they are reckoned 1.

EXAMPLE. How many gallons will a circular tank contain, the diameter of which is 121 feet, and the depth 8 feet?

| In Table IV., under the diameter 121 feet, and | |
|---|----------|
| opposite the depth 8 feet, stands the cubic con- | |
| tent 36 yards 10 feet; and, by the present Table, | Gallons. |
| the content in gallons, opposite 36 yards, is . | 6058 |
| And opposite 10 feet, is | 62 |

Capacity of the tank, .

Suppose it were wished to construct a tank to contain a certain number of gallons, say about 6000, at a depth of 8 feet, what would the circumference require to be?

| By this Table we find that 36 cubic yards will con- | |
|---|----------|
| tain 6058 gallons, and, on turning to Table I., | |
| the nearest content to 36 yards, under 8 feet, is | |
| found to be 35 yards 23 feet, opposite a circum- | |
| ference of 39 feet; and, in this Table, opposite | Gallons, |
| 35 yards, stands | 5889 |
| And opposite 23 feet stands | 143 |
| | |
| Capacity of the tank. | 6032 |

TABLE V .--- CAPACITY OF TANKS IN IMPERIAL GALLONS.

If it be desired to make an oblong tank to contain about the same quantity, the depth to be S feet, and the breadth 9 feet, what must be its length?

| In Table II., at a breadth of 9 feet, under a depth (height) of 8 feet, we find opposite a length of 13 | Yds. | Ft. |
|--|------|-----|
| feet, stands | 34 | 18 |
| And opposite 1/2 foot stands • | 1 | 9 |
| Or a tank 131 feet long 9 broad, and 8 deep, will | | |

An Imperial galon contains 277.274 cubic inches, and if 04,656, the cubic inches in a yard, is qivided by that number, the quotient is 108.26077, or a little more than 1684 galons per cubic yard; and this number, divided by 27, the cubic feet in a yard, gives a quotient of 6.2321, or a little less than 64 gallons per cubic foot.

⁵ Thus, if the cubic content of any tank is known, yards multiplied by 168.26677, and feet multiplied by 6.2321, will give its capacity in Imperial gallons. Where great exactness is not required, the yards may be multiplied by $168\frac{1}{4}$, and the feet by $6\frac{1}{4}$ in place of the above.

Suppose the solid content of a tank to be 36 yards 10 feet;

| Then, 36 × 168.26677 And, 10 × 6.2321 | : | : | : | | Gallons. 6057.60372 62.321 |
|--|--------|------|-------|-------|----------------------------------|
| Capacity of the tank | aa aho | wn b | w the | Table | 6119.92472 |

Rules for calculating the capacity of tanks in Imperial gallons.

1. For circular tanks .- Given, the diameter and depth.

Square the diameter, multiply the product by the depth, and by 4.8947, if the dimensions are given in feet; or, by .0028326, if the dimensions are given in inches.

2. For circular tanks .- Given, the circumference and depth.

Square the circumference, multiply the product by the depth, and by .49594, if the dimensions are given in feet; or, by .000287, if the dimensions are given in inches.

 For square or oblong tanks.—Given, the length, width, and depth.

Multiply the length, width, and depth into one another, and the product by 6.2321, if the dimensions are given in freet; or, by.00360654, if the dimensions are given in inches.

We shall perform the foregoing examples, by the Rules, in their order. 48 TABLE V.-CAPACITY OF TANKS IN IMPERIAL GALLONS.

A circular tank, diameter 12¹/₂ feet, and depth 8 feet.
 By feet, 12.5² = 156.25×8 = 1250×4.8947 = 6118.375 gallons.
 , inches,150² = 22500×96 = 2160000×.0028326 = 6118.416 do.

A circular tank, circumference 39 feet, and depth 8 feet.
 By feet, 39²=1521 × 8=12168 × .40594=6034.59792 gallons.
 , in. 468²=219024 × 06=21026304 × .000287=6034.549248 do.

3. An oblong tank, length $13\frac{1}{3}$ feet, width 9 feet, and depth 8 feet.

By feet, $13.5 \times 9 = 121.5 \times 8 = 972 \times 6.2321 = 6057.6012$ gallons. , inches, $162 \times 108 = 17496 \times 96 = 1679616 \times .00360654$

= 6057.60228864 gallons.

It will be observed that the contents in these examples vary a little from the contents found by the Tables, which is caused by taking the fractions in the calculations of the Table, if above a half-foot, as 1; or, neglecting them, when a half-foot, or under.

Mr. George Milling; at the Annual Show Meeting of the Royal North Lancahire Agricultural Society, held at Burnley in September 1850, stated that he had made a calculation which, he believed, would be found near enough for protectian purposes, that during the freety months of November, December, January, manner, one cow, during that time, would make \$100 gallons. The size of tanks necessary for a farm would, therefore, he requlated by the number of stock keyt, at the rate of 300 gallons for each. This would be about 2 cubic yards for one cow, 9 yards for 5 dows, HS yards for D cows, 21 yards for 16 dows, and 30 circular, squarks, or oblong, of the above-mentioned contents, may readily be found by Tables II, IL, and IV.

| Con- | Capacity | Con- | Capacity | Con- | Capacity | Con- | Capacity | Con- | Capacity |
|------------------|----------|--------|----------|--------|----------|------------------|----------|------------------|----------|
| tent in Solid | in Im- | Solid | in Im- | Solid | in Im- | tent in Solid | Imperial | tent in Solid | in Im- |
| Feet. | Gallons. | Yards. | Gailons. | Yards. | Gallons. | Yards. | Gailons. | Yards- | Gallong. |
| Feet. | I. Gals. | Yards. | L Gals | Yards. | I. Gals. | Yards. | L Gals. | Yards. | I. Gals. |
| 1 | 6 | 1 | 168 | 27 | 4543 | 53 | 8918 | 79 | 13293 |
| 2 | ,12 | 2 | 337 | 28 | 4711 | 54 | 9086 | 80 | 13461 |
| 3 | 19 | 3 | 505 | 29 | 4880 | 55 | 9255 | 81 | 13630 |
| 4 | 25 | 4 | 673 | 30 | 5048 | 56 | 9423 | 82 | 13798 |
| 5 | 31 | 5 | 841 | 31 | 5216 | 57 | 9591 | 83 | 13966 |
| 6 | 37 | 6 | 1010 | 32 | 5385 | 58 | 9759 | 84 | 14134 |
| 7 | 44 | 7 | 1178 | 33 | 5553 | 59 | 9928 | 85 | 14303 |
| 8 | 50 | 8 | 1346 | 34 | 5721 | 60 | 10096 | 86 | 14471 |
| 9 | 56 | 9 | 1514 | 35 | 5889 | 61 | 10264 | 87 | 14639 |
| 10 | 62 | 10 | 1683 | 36 | 6058 | 62 | 10433 | 88 | 14807 |
| 11 | 69 | 11 | 1851 | 37 | 6226 | 63 | 10601 | 89 | 14976 |
| 12 | 75 | 12 | 2019 | 38 | 6394 | 64 | 10769 | 90 | 15144 |
| 13 | 81 | 13 | 2187 | 39 | 6562 | 65 | 10937 | 91 | 15312 |
| 14 | 87 | 14 | 2356 | 40 | 6731 | 66 | 11106 | 92 | 15481 |
| 15 | 93 | 15 | 2524 | 41 | 6899 | 67 | 11274 | 93 | 15649 |
| 16 | 100 | 16 | 2692 | 42 | 7067 | 68 | 11442 | 94 | 15817 |
| 17 | 106 | 17 | 2861 | 43 | 7235 | 69 | 11610 | 95 | 15985 |
| 18 | 112 | 18 | 3029 | 44 | 7404 | 70 | 11779 | 96 | 16154 |
| 19 | 118 | 19 | 3197 | 45 | 7572 | 71 | 11947 | 97 | 16322 |
| 20 | 125 | 20 | 3365 | 46 | 7740 | 72 | 12115 | 98 | 16490 |
| 21 | 131 | 21 | 3534 | 47 | 7909 | 73 | 12283 | 99 | 16658 |
| 22 | 137 | 22 | 3702 | 48 | 8077 | 74 | 12452 | 100 | 16827 |
| 23 | 143 | 23 | 3870 | 49 | 8245 | 75 | 12620 | 200 | 33653 |
| 24 | 150, | 24 | 4038 | 50 | 8413 | 76 | 12788 | 300 | 50480 |
| 25 | 156 | 25 | 4207 | 51 | 8582 | 77 | 12957 | 400 | 67307 |
| 26 | 162 | 26 | 4375 | 52 | 8750 | 78 | 13125 | 500 | 84133 |

TABLE V .- CAPACITY OF TANKS IN IMPERIAL GALLONS.

TABLE VI.

To find, by measurement, the weight of live cattle, sheep, and swine, in Imperial stones of 14 lbs., in Smithfield stones of 8 lbs., in cwts., and in scores.

Is the first column of the Table, on the left hand, is placed the girths of the animals, in feet and inches; in the second column, the lengths, in feet and inches; in the columns succeeding, opposite each dimension, is found the weight in Imperial stones and Use, in Smithfield stones and Use, in ewts., qrs., and Ibs., and in secores and Ibs.

To get the dimensions, let the animal be made to stand straight, and takes the girth coles behind the fore legs, at A B (see Facourser, ca), in feet and inches, and the length from the top of the shoulder to the hone at the rump, perpendicular to the extremity of the buttock, or from A to C, also in feet and inches. The length of the long is taken along the curve of the back, as indicated in the figure. Having found the girth and length as a directed, look for the girth in the left-hand column, and opposite the length under their respective headings, stands the weight of the animal in all the various decominations.

EXAMPLE I. Required the weight of a pig which is 4 feet 4 inches in girth, and 3 feet 3 inches in length.

Having found the girth 4 feet 4 inches in the Table, opposite the length 5 feet 3 inches stands 14 stones 8 lbs. Imperial, 25 stones 4 lbs. Smithfield, 1 evt. 3 grs. 8 lbs, and 10 scores 4 lbs; being the weight of the animal in all the denominations, any of which the dealer may take that best suits his business, or the custom of the place in which the resides.

EXAMPLE II. What is the weight of an ox, the girth of which is 5 feet 10 inches, and length 5 feet 1 inch?

Having found the girth 5 feet 10 inches, and length 5 feet 1 inch, opposite thereto stands 41 stones 4 lbs. Imperial, 72 stones 2 lbs. Smithfield, 5 cwt. 18 lbs., and 28 scores 18 lbs.; any of which may be selected as is found most convenient.

It is to be observed that the Table shows the weight of the four quarters only of the animal, or, as it is termed, the weight sinking offuls, which is little more than half the weicht of the

TABLE VI .- WEIGHT OF LIVE CATTLE BY MEASUREMENT.

beast, the offals weighing nearly the other half. The skin weighs about the 18th part, and the tallow about the 12th part of the Iving animal. The head and neek of a pig weighs about onesist to the head, fest, hide, tallow, tripe, blood, deo, and are estimated at from about one-fourth to one-kinfe the price of the four quarters. The offals of awine may be estimated at about one-eighth of the value of the four quarters.

It is also to be noted that the Table is calculated to show the weight of cattle when in pretty good condition. If the animal, of which the weight is required, is extra fat, to the weight found in the Table add its 2004 part; and, if an, and in bad condition, deduct the 20th part. To ra cow which has had several calves, and is not in good condition, deduct the 10th part from the weight shown in the Tables, which will then be very nearly the true weight, sinking the offsile.

If it be desired to find the weight of an animal in Dutch stones. of 171 Imperial ounces in its pound, and 16 of these pounds in its stone; or in Scotch Trone stones, varying in different places from 20 to 28 Imperial ounces to the pound, and 16 of these pounds to the stone; there being always the same number of Imperial pounds in a Dutch or Trone stone as there are Imperial ounces in their pound, the Dutch stone will weigh 171 Imperial pounds, and the Trone stone from 20 to 28 pounds Imperial, in conformity with the usage of different localities. The Rule, then, to turn the Imperial weight found in the Table into any of these weights is to multiply it by 14, the number of pounds in a stone; and if for Dutch, divide the product by 171; if for Trone, divide by the number of pounds in the stone of the given weight, and the quotient is stones of the weight required. If, after the division of the stones, there is a remainder, multiply it by 16, and divide by the former divisor; the quotient is pounds Dutch, or Trone. as the case may be.

It is to be observed, that a weight consisting of stones and pounds Imperial cannot be accurately converted into Duth or Trono weight, unless the number by which the pounds in the weight is multipled, bring up the pounds to exact stones. The reason of which is, that the *ratio* of the Imperial stone is to the Duths stone as 14 to 174, and to the Aynhire stone, inthe following example, as 14 to 24, whilst the *ratio* of the Imperial pound is to the Dutheh pound as 16 to 174, and to the Aynhire pound as 16 to 24. This remark is also applicable when Dutch or Trace weights are to be converted into Immerial.

EXAMPLE. The girth of an ox is 5 feet 9 inches, and its length 4 feet 10 inches; what is its weight in Dutch stones, and also in Ayrshire stones, of 24 Imperial ounces to the pound?

In the Table the weight is found to be 38 stones 2 lbs. Imperial. To find the Dutch weight; on account of the fraction in 2 TABLE VI.-WEIGHT OF LIVE CATTLE BY MEASUREMENT.

the Dutch, we must multiply 14 and $17\frac{1}{2}$, the pounds in the respective stones, hy 2, and multiply the weight by 28 and divide by 35.



To find the Ayrshire stones, we may divide 14 and 24 by 2, and then multiply hy 7 and divide hy 12,



Or, 22 stones 4 lhs. Ayrshire Trone.

The following short account of the method of calculating the weight of animals by the pen, and constructing the Table, may he found useful.

It has been assertained, by a number of experiments, that if the girth and length of cattle are taken as formerly directed, and the solid content found by the rule for calculating the solid content of cylinders, each cubic or solid foot will indicate a weight of 3 Imperial stones, and the third part of a cubic foot, or 576 cubic indexs, will consequently be equal to 1 show. If, there exists in the solid consequently be equal to 1 shows. If the quotient will be the number of Imperial stones in the four quotrees of the animal.

Runz 1. Multiply the square of the girth of the animal hy the length, both in inches, and the product, multiplied by the decimal 07058, will give the content in cubio inches; which divide by 876, and the quotient is the weight of the animal in Imperial stones of 14 lbs.

2. Multiply the square of the girth by the length, hoth in inches; and divide the product by 7238, and the quotient is the weight in Imperial stones.

3. Multiply the square of the girth hy the length, both in inches, and that product multiply by the decimal .00013816, the product is the weight in Imperial stones. TABLE VI .- WEIGHT OF LIVE CATTLE BY MEASUREMENT.

Norg. The divisor 7238, in Rule second, is the quotient of 576 divided by .07958, and the multiplier .00013816, in Rule third, is the quotient of .07958 divided by 576.

EXAMPLE, The girth of an ox is 88 inches, and length 63 inches. Required its weight in Imperial stones?

By Rule 1st.

88² = 7744 × 63 = 487872 × .07958 = 38824.85376 ÷ 576 = 67.40426 stones,

and .40426 × 14 = 5.65964 lbs., and .65964 × 16 = 10.55424 ounces, making the weight 67 stones 5 lbs. 101 ounces.

By Rule 2d,

 $88^2=7744$ \times 63 = 487872 \div 7238 = 67.404255 stones; the fractional part of which may be reduced to pounds and ounces as above.

By Rule 3d,

882 = 7744 × 63 = 487872 × .00013816 = 67.40439552 stones.

By the Table the content is found to be 67 stones 6 los. The algott difference from the Table, by tio first Rule, is caused by taking the remaining fraction.05064, which is above a half pound as 1. By Rule 3d, the divisor is a very small fraction too large, and by Rule 3d, the multiplier is also a very small fraction too large.

The number 7238, multiplied by 8, and divided by 14 = 4186. is the divisor for Smithfield stones.

| 54 TABLE VIWEIGHT OF LIVE CATTLE BY MEASUREMENT. | | | | | | |
|--|---|--|---|--|---|--|
| Girth. | Length. | Imperial Stones. | Smithfield Stones. | Cwts. | Scores. | |
| Ft. In. 2 0 | Ft. In. 1 9 1 10 1 11 2 0 2 1 2 2 2 3 | Sts. Lbs. 1 9 1 11 1 12 1 13 2 0 2 1 2 2 2 2 | Sts. Lbs. 2 7 3 1 3 2 3 3 3 4 3 5 3 6 | $\begin{array}{c} \text{Cwts. Qrs. Lbs.} \\ 0 & 0 & 23 \\ 0 & 0 & 25 \\ 0 & 0 & 26 \\ 0 & 0 & 27 \\ 0 & 1 & 0 \\ 0 & 1 & 1 \\ 0 & 1 & 2 \end{array}$ | Scs. Lbs. 1 3 1 5 1 6 1 7 1 8 1 9 1 10 | |
| 2 1 | $ \begin{array}{cccccccccccccccccccccccccccccccccccc$ | $ \begin{array}{cccccccccccccccccccccccccccccccccccc$ | $ \begin{array}{ccccccccccccccccccccccccccccccccc$ | $\begin{array}{cccccccccccccccccccccccccccccccccccc$ | 1 5 1 7 1 8 1 9 1 10 1 11 1 13 | |
| 22 | $ \begin{array}{cccccccccccccccccccccccccccccccccccc$ | $ \begin{array}{cccccccccccccccccccccccccccccccccccc$ | $\begin{array}{cccccccccccccccccccccccccccccccccccc$ | $\begin{array}{cccccccccccccccccccccccccccccccccccc$ | $\begin{array}{cccccccccccccccccccccccccccccccccccc$ | |
| 2 3 | $ \begin{array}{cccccccccccccccccccccccccccccccccccc$ | $ \begin{array}{cccccccccccccccccccccccccccccccccccc$ | $\begin{array}{cccccccccccccccccccccccccccccccccccc$ | $\begin{array}{cccccccccccccccccccccccccccccccccccc$ | $\begin{array}{cccccccccccccccccccccccccccccccccccc$ | |
| 2 4 | $ \begin{array}{cccccccccccccccccccccccccccccccccccc$ | $\begin{array}{cccccccccccccccccccccccccccccccccccc$ | 3 4 1 3 4 6 7 1 2 4 5 5 5 5 | $\begin{array}{cccccccccccccccccccccccccccccccccccc$ | $ \begin{array}{cccccccccccccccccccccccccccccccccccc$ | |
| 2 5 | 1 9 1 10 | $ \begin{array}{ccc} 2 & 6 \\ 2 & 8 \end{array} $ | 4 2 4 4 | 0 1 6 0 1 8 | 1 14 1 16 | |

| Table vi.—weight of live cattle by measurement. 55 | | | | | | |
|--|--|--|--|--|--|--|
| Girth. | Length. | Imperial Stones. | Smithfield Stones. | Cwts. | Scores. | |
| Ft. In. 2 5 | Ft. In. 1 11 2 0 2 1 2 2 2 3 2 4 2 5 | Sts Lbs. 2 9 2 11 2 13 3 0 3 2 3 4 3 5 | Sts. Lbs. 4 5 4 7 5 1 5 2 5 4 5 6 5 7 | Cwts. Qrs. Lbs. 0 1 9 0 1 11 0 1 13 0 1 14 0 1 16 0 1 18 0 1 19 | Scs. Lbs. 1 17 1 19 2 1 2 2 2 4 2 6 2 7 | |
| 26 | $ \begin{array}{cccccccccccccccccccccccccccccccccccc$ | $\begin{array}{cccccccccccccccccccccccccccccccccccc$ | 4 5 4 6 5 0 5 2 5 4 5 5 6 1 6 2 | $\begin{array}{cccccccccccccccccccccccccccccccccccc$ | $ \begin{array}{cccccccccccccccccccccccccccccccccccc$ | |
| 27 | $ \begin{array}{cccccccccccccccccccccccccccccccccccc$ | $\begin{array}{cccccccccccccccccccccccccccccccccccc$ | $\begin{array}{cccccccccccccccccccccccccccccccccccc$ | $\begin{array}{cccccccccccccccccccccccccccccccccccc$ | $\begin{array}{cccccccccccccccccccccccccccccccccccc$ | |
| 2 8 | $\begin{array}{cccccccccccccccccccccccccccccccccccc$ | $\begin{array}{cccccccccccccccccccccccccccccccccccc$ | 5 4 6 0 2 3 5 6 6 2 3 5 7 7 7 7 7 | $\begin{array}{cccccccccccccccccccccccccccccccccccc$ | $\begin{array}{cccccccccccccccccccccccccccccccccccc$ | |
| 2 9 | $ \begin{array}{cccccccccccccccccccccccccccccccccccc$ | 3 6 3 9 3 11 3 13 4 1 4 3 | | $\begin{array}{cccccccccccccccccccccccccccccccccccc$ | 2 8 2 11 2 13 2 15 2 17 2 19 | |

| 56 TABLE VIWEIGHT OF LIVE CATTLE BY MEASUREMENT. | | | | | | | |
|--|--|---|--|---|---|--|--|
| Girth. | Length. | Imperial Stones. | Smithfield Stones. | Cwts. | Scores. | | |
| Ft. In. 2 9 | Ft. In. 2 5 2 6 2 7 2 8 2 9 | Sts. Lbs. 4 5 4 7 4 9 4 11 5 0 | Sts. Lbs. 7 5 7 7 8 1 8 3 8 6 | Cwts. Qrs. Lbs. 0 2 5 0 2 7 0 2 9 0 2 11 0 2 14 | Ses. Lbs. 3 1 3 3 3 5 3 7 3 10 | | |
| 2 10 | $ \begin{array}{cccccccccccccccccccccccccccccccccccc$ | 3 9 3 12 4 0 4 2 4 4 4 7 4 9 4 11 4 13 5 2 5 4 | 6 3 6 6 0 7 2 7 4 7 7 8 3 8 5 9 0 9 2 | $\begin{array}{cccccccccccccccccccccccccccccccccccc$ | 2 11 2 14 2 16 2 18 3 0 3 5 3 5 3 5 3 7 3 9 3 12 3 14 | | |
| 2 11 | 2 10 2 0 2 1 2 2 2 3 2 4 2 5 2 6 2 7 2 8 2 9 2 10 2 11 | $\begin{array}{c} 4 & 1 \\ 4 & 3 \\ 4 & 8 \\ 4 & 8 \\ 4 & 10 \\ 4 & 13 \\ 5 & 1 \\ 5 & 3 \\ 5 & 6 \\ 5 & 8 \\ 5 & 11 \\ 5 & 13 \end{array}$ | 7 1 7 3 7 6 8 0 8 2 8 5 8 7 9 1 9 4 9 6 10 1 10 3 | $\begin{array}{cccccccccccccccccccccccccccccccccccc$ | 2 17 2 19 3 2 3 4 3 6 3 9 3 11 3 13 3 16 3 18 4 1 4 3 | | |
| 3 0 | 2 0 2 1 2 2 2 3 2 4 5 5 2 6 2 7 2 8 2 9 2 10 2 11 3 0 | $\begin{array}{cccccccccccccccccccccccccccccccccccc$ | $\begin{array}{cccccccccccccccccccccccccccccccccccc$ | $\begin{array}{cccccccccccccccccccccccccccccccccccc$ | 8 0 3 8 3 5 3 13 3 15 3 18 4 0 4 5 4 8 4 10 | | |

| | TABLE VI | WEIGHT OF I | IVE CATTLE | BY MEASUREME | NT. 07 |
|----------------|---|--|--|---|--|
| Girth. | Length. | Imperial Stones. | Smithfield Stones. | Cwts. | Scores. |
| Ft. In. 3 1 | Ft. In. 2 1 2 2 2 2 2 3 2 2 2 3 2 2 2 3 2 4 2 5 2 6 2 7 2 9 2 10 2 11 3 0 3 1 | $\begin{array}{cccccccccccccccccccccccccccccccccccc$ | Sts. Lbs. 8 2 8 5 5 9 2 9 5 9 2 9 5 10 2 10 5 10 7 11 2 11 5 11 7 12 2 2 3 | $\begin{array}{c} \text{Cwts, Qrs, Lbs,} \\ 0 & 2 & 10 \\ 0 & 2 & 13 \\ 0 & 2 & 15 \\ 0 & 2 & 18 \\ 0 & 2 & 218 \\ 0 & 2 & 218 \\ 0 & 2 & 218 \\ 0 & 2 & 228 \\ 0 & 3 & 10 \\ 0 & 3 & 3 \\ 0 & 3 & 6 \\ 0 & 3 & 9 \\ 0 & 3 & 11 \\ 0 & 3 & 14 \\ \end{array}$ | $\begin{array}{cccccccccccccccccccccccccccccccccccc$ |
| 3 2 | $\begin{array}{cccccccccccccccccccccccccccccccccccc$ | $\begin{array}{cccccccccccccccccccccccccccccccccccc$ | $\begin{array}{cccccccccccccccccccccccccccccccccccc$ | $\begin{array}{cccccccccccccccccccccccccccccccccccc$ | $\begin{array}{cccccccccccccccccccccccccccccccccccc$ |
| 3 3 | $\begin{array}{cccccccccccccccccccccccccccccccccccc$ | $\begin{array}{cccccccccccccccccccccccccccccccccccc$ | $\begin{array}{cccccccccccccccccccccccccccccccccccc$ | $ \begin{smallmatrix} 0 & 2 & 20 \\ 0 & 2 & 23 \\ 0 & 3 & 1 \\ 0 & 3 & 4 \\ 0 & 3 & 10 \\ 0 & 3 & 10 \\ 0 & 3 & 10 \\ 0 & 3 & 10 \\ 0 & 3 & 10 \\ 0 & 3 & 10 \\ 0 & 3 & 10 \\ 0 & 3 & 10 \\ 0 & 3 & 10 \\ 0 & 3 & 25 \\ 1 & 0 & 0 \\ 1 & 0 & 3 \\ \end{bmatrix} $ | $\begin{array}{cccccccccccccccccccccccccccccccccccc$ |
| 8 4 | | 5 10 6 0 | 10 0 10 4 | | 4 0 4 4 |

| | - | |
|--|---|--|
| | | |
| | ~ | |
| | | |
| | | |

TABLE VI .- WEIGHT OF LIVE CATTLE BY MEASUREMENT.

| Girth | Ten | ath | Imp | erial | Smithfield Cwta | | | | | Sa | |
|---------|-----|-------|------|-------|-----------------|------|-------|------|------|------|------|
| ouru. | Leb | Rorr | Sto | nes. | Stor | nes. | | owis | • | - 30 | 1100 |
| Ft. In. | Ft. | In. | Sts. | Lbs. | Sts. | Lbs. | Cwts. | Qrs. | Lbs. | Scs. | Lbs. |
| 8 4 | 2 | 4 | 6 | 3 | 10 | 7 | 0 | 3 | 3 | 4 | 7 |
| | 2 | 5 | 0 | 6 | | 2 | 0 | 3 | 0 | 4 | 10 |
| | 2 | 7 | 0 | 19 | 12 | 0 | | 3 | 12 | 4 | 10 |
| | 2 | 8 | 7 | 1 | 12 | 3 | 0 | 3 | 15 | 4 | 19 |
| | 2 | 9 | 7 | â | 12 | 6 | ŏ | 3 | 18 | 5 | 3 |
| | 2 | 10 | 7 | 7 | 13 | ĩ | 0 | 3 | 21 | 5 | 5 |
| | 2 | 11 | 7 | 10 | 13 | 4 | 0 | 8 | 24 | 5 | 8 |
| | 3 | 0 | 7 | 13 | 13 | 7 | 0 | 3 | 27 | 5 | 11 |
| | 3 | 1 | 8 | 3 | 14 | 3 | 1 | 0 | 3 | 5 | 15 |
| | 3 | 2 | 8 | 6 | 14 | 6 | 1 | 0 | 6 | 5 | 18 |
| | 3 | 3 | 8 | 9 | 15 | 1 | 1 | 0 | 9 | 6 | 1 |
| | 8 | . 4 | 8 | 12 | 15 | 4 | 1 | 0 | 12 | 0 | 4 |
| 3 6 | 2 | 3 | 6 | 4 | 11 | 0 | 0 | 8 | 4 | 4 | 8 |
| | 2 | 4 | 6 | 10 | | 8 | 0 | 3 | 17 | 4 | 11 |
| | 2 | 0 | 6 | 10 | 11 | 0 | 0 | 3 | 10 | 4 | 14 |
| | 2 | 7 | 7 | 0 | 12 | 2 5 | 0 | 0 | 1/7 | 4 5 | 10 |
| | 2 | 8 | 7 | ß | 13 | 0 | | 3 | 20 | 5 | Å |
| | 2 | 9 | 7 | 9 | 18 | 3 | 0 | S | 23 | 5 | 7 |
| | 2 | 10 | 7 | 13 | 13 | 7 | 0 | 3 | 27 | 5 | 1i |
| | 2 | 11 | * 8 | 2 | 14 | 2 | 1 | 0 | 2 | 5 | 14 |
| | 3 | 0 | 8 | 5 | 14 | 5 | 1 | 0 | 5 | 5 | 17 |
| | 3 | :1 | 8 | 8 | 15 | 0 | 1 | 0 | 8 | 6 | 0 |
| | 3 | 2 | 8 | 12 | 15 | 4 | | 0 | 12 | 6 | 4 |
| | 8 | 3 | 9 | 1 | 15 | 7 | 1 | 0 | 15 | 6 | 7 |
| | 9 | 4 | 9 | 4 | 10 | z | 1 | 0 | 18 | 0 | 10 |
| 3 7 | 2 | 3 | 6 | 8 | 11 | 4 | 0 | 3 | 8 | 4 | 12 |
| | 2 | 4 | 0 | 12 | 12 | 0 | 0 | 0 | 12 | 4 | 10 |
| | 2 | B | 17 | 4 | 12 | ß | | 9 | 10 | 5 | 19 |
| | 2 | 7 | 7 | 8 | 13 | 2 | 0 | 8 | 22 | 5 | 6 |
| | 2 | 8 | 7 | 11 | 13 | 5 | 0 | 3 | 25 | 5 | 9 |
| | 2 | . 9 | 8 | 1 | 14 | 1 | 1 | 0 | 1 | 5 | 13 |
| | 2 | 10 | 8 | 4 | 14 | 4 | 1 | 0 | 4 | 5 | 16 |
| | 2 | 11 | 8 | 7 | 14 | 7 | 1 | 0 | 7 | 5 | 19 |
| | 3 | 0 | 8 | 11 | 15 | 8 | 1 | 0 | 11 | 6 | 8 |
| | 3 | 1 | 9 | 0 | 10 | 6 | 1 | 0 | 14 | 6 | 6 |
| | 3 | - 2 . | 9 | 2 77 | 16 | 2 5 | 1 | 0 | 18 | 6 | 10 |
| | 3 | 4 | 9 | 10 | 17 | 0 | 1 | 0 | 24 | ß | 18 |
| | 3 | 5 | 10 | 0 | 17 | 4 | î | 1 | 0 | 7 | 0 |
| 0 7 | 0 | | -77 | 0 | 10 | | 0 | 0 | 10 | | 0 |
| 0 1 | 2 | 4 | 4 | 2 | 12 | 2 | 0 | 0 | 10 | 0 | 0 |

| | 1 | ABLE | VI. | WEIGH | T OF I | IVE CA | TTLE | BY MI | EASU | REME | NT. | 59 |
|-----|-----|------|------|------------|----------------|--------|------|-------|------|------|------|-------|
| Gir | th. | Len | gth. | Imp Sto | perial mes. | Stor | ncs. | 1 | Cwts | | Sci | ores. |
| Ft. | In. | Ft. | In. | Sta. | Lbs. | Sts. | Lbs. | Cwts. | Qrs | Lba | See. | Lhe |
| 3 | 7 | 2 | 5 | 7 | 6 | 13 | 0 | 0 | 3 | 20 | 5 | 4 |
| | | 2 | 6 | 7 | 9 | 13 | 3 | 0 | 3 | 23 | 5 | 7 |
| | | 2 | 7 | 7 | 13 | 13 | 7 | 0 | 3 | 27 | 5 | 11 |
| | | 2 | 8 | 8 | 2 | 14 | 2 | 1 | 0 | 2 | 5 | 14 |
| | | 2 | 9 | 8 | 6 | 14 | 6 | 1 | 0 | 6 | 5 | 18 |
| | | 2 | 10 | 8 | 10 | 15 | 2 | 1 | 0 | 10 | 6 | 2 |
| | | 2 | 11 | 8 | 13 | 15 | 5 | 1 | 0 | 13 | 6 | 5 |
| | | 3 | 0 | 9 | 3 | 16 | 1 | i | õ | 17 | 6 | 9 |
| | | 3 | 1 | 9 | 6 | 16 | 4 | 1 1 | 0 | 20 | 6 | 12 |
| | | 3 | 2 | 9 | 10 | 17 | 0 | 1 | 0 | 24 | 6 | 16 |
| | | 3 | 3 | 9 | 13 | 17 | 3 | i | õ | 27 | 6 | 19 |
| | | 3 | 4 | 10 | 3 | 17 | 7 | 1 | 1 | 3 | 7 | 3 |
| | | 3 | 5 | 10 | 7 | 18 | 3 | 1 1 | 1 | 7 | 7 | 7 |
| | | | | | | | | - | | | | |
| 8 | 8 | 2 | 4 | 7 | 7 | 13 | 1 | 0 | 3 | 21 | 5 | 5 |
| | - | 2 | 5 | 7 | 11 | 13 | 5 | 0 | 3 | 25 | 5 | 9 |
| | | 2 | 6 | 8 | 0 | 14 | 0 | 1 | 0 | 0 | 15 | 12 |
| | | 2 | 7 | 8 | 4 | 14 | 4 | i | 0 | 4 | 5 | 16 |
| | | 2 | 8 | 8 | 8 | 15 | õ | i | 0 | 8 | ß | 0 |
| | | 2 | 9 | 8 | 12 | 15 | 4 | î | 0 | 12 | 6 | 4 |
| | | 2 | 10 | 9 | 1 | 15 | 7 | î | ő | 15 | 6 | 7 |
| | | 2 | 11 | 9 | 5 | 16 | 3 | î | 0 | 19 | 6 | 11 |
| | | 3 | 0 | 9 | 9 | 16 | 7 | î | 0 | 23 | 6 | 15 |
| | | 3 | 1 | 9 | 13 | 17 | 3 | i | 0 | 27 | 6 | 19 |
| | | 3 | 2 | 10 | 2 | 17 | ß | î | 1 | 2 | 7 | 2 |
| | | 3 | 3 | 10 | 6 | 18 | 2 | î | î | ñ | 7 | ñ |
| | | 3 | 4 | 10 | 10 | 18 | 6 | i | î | 10 | 7 | 10 |
| | | 3 | 5 | 11 | 0 | 19 | 2 | 1 î | î | 14 | 7 | 14 |
| | | 3 | 6 | 11 | 3 | 19 | 5 | î | î | 17 | 7 | 17 |
| | | | | | | 10 | ~ | - | - | ** | | |
| 3 | 9 | 2 | 5 | 8 | 2 | 14 | 2 | 1 | 0 | 2 | 5 | 14 |
| | | 2 | 6 | 8 | 6 | 14 | 6 | li | 0 | 6 | 5 | 18 |
| | | 2 | 7 | 8 | 9 | 15 | 1 | lî | Ő | 9 | 6 | 1 |
| | | 2 | 8 | 8 | 13 | 15 | -5 | i i | 0 | 13 | 6 | 5 |
| | | 2 | 9 | 9 | 3 | 16 | 1 | î | õ | 17 | 6 | 9 |
| | | 2 | 10 | 9 | 7 | 16 | 5 | î | 0 | 21 | 6 | 18 |
| | | 2 | 11 | 9 | 11 | 17 | 1 | i | 0 | 25 | 6 | 17 |
| | | 3 | 0 | 10 | 1 | 17 | 5 | î | 1 | 1 | 7 | 1 |
| | | 3 | 1 | 10 | 5 | 18 | 1 | i | 1 | 5 | 7 | 15 |
| | | 3 | 2 | 10 | 9 | 18 | 5 | i | i | 9 | 7 | 9 |
| | | 3 | 3 | 10 | 13 | 19 | 1 | 1 | 1 | 13 | 7 | 13 |
| | | 3 | 4 | 11 | 3 | 19 | 5 | i | i | 17 | 7 | 17 |
| | | 3 | 5 | 11 | 7 | 20 | 1 | î | 1 | 21 | 8 | 1 |
| | | 3 | 6 | 11 | 11 | 20 | 5 | î | 1 | 25 | 8 | 5 |
| | | | | | | | | | - | -0 | - | |
| 3 | 10 | 2 | 5 | 8 | 7 | 14 | 7 | 1 | 0 | 7 | 5 | 19 |

| 60 | TABLE | s vi | -WEIG | HT OF | LIVE C | ATTLE | BY N | EAST | TREM | ent. | |
|--------------|---|---|--|--|--|--|--|---|---|-------------------------------|---|
| Girth. | Len | gth. | Imp Sto | ncs. | Smith Sto | hfield nes. | | Cwts | | Sci | ores. |
| Ft. 1n. 3 10 | Ft. 2 2 2 2 2 2 3 3 3 3 3 3 3 3 3 3 3 3 3 | In. 6 7 8 9 10 11 0 1 2 3 4 5 6 7 | Sts. 8 9 9 9 9 9 9 10 10 10 11 11 11 12 12 12 | Lbs. 11 1 5 9 13 3 7 11 2 6 10 0 4 8 | Sts. 15 15 16 16 17 17 18 18 19 20 20 21 21 22 | Lbs. 3 7 3 7 3 7 3 7 4 0 4 0 4 0 4 0 | Cwts. 1 1 1 1 1 1 1 1 1 1 1 1 1 | Qrs. 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 | Lbs. 11 15 19 23 27 3 7 11 16 20 24 0 4 8 | Sc6 6 6 6 6 7 7 7 7 8 8 8 8 8 | Lbs. 3 7 11 15 19 3 7 11 16 0 4 8 12 16 |
| 8 11 | 2 | 6 | 9 | 2 | 16 | 0 | 1 | 0 | 16 | 6 | 8 |
| | 2 | 8 | 9 | 11 | 17 | 1 | 1 | 0 | 25 | 6 | 17 |
| | 2 | 10 | 10 | 5 | 17 | 1 | 1 | 1 | 5 | 7 | 5 |
| | 3 | 0 | 11 | 0 | 18 | 2 | 1 | 1 | 14 | 7 | 14 |
| | 3 | $\frac{1}{2}$ | 11 11 | 4 8 | 19 20 | 6 2 | 1 | 1 | $\frac{18}{22}$ | 7 | 18 2 |
| | 3 | 3 | 11 | 13 | 20 | 7 | 1 | 1 | 27 | 8 | 7 |
| | 3 | 4 5 | 12 | 7 | 21 | 7 | 1 | 2 | 37 | 8 | 15 |
| | 8 | 6 | 12 | 11 | 22 | 3 | 1 | 2 | 11 | 8 | 19 |
| | 3 | 8 | 13 | 6 | 20 | 4 | 1 | 2 | 20 | 9 | 8 |
| 4 0 | 2 | 6 | 9 | 8 | 16 | 6 | 1 | 0 | 22 | 6 | 14 |
| | 2 | 7 | 9 | 12 | 17 | 27 | | 0 | 26 | 6 | 18 |
| | 2 | 9 | 10 | 7 | 18 | 3 | î | î | 7 | 7 | 7 |
| | 2 | 10 | 10 | 12 | 19 | 0 | 1 | 1 | 12 | 7 | 12 |
| | 8 | Ô | îî | 6 | 20 | õ | i | î | 20 | 8 | 0 |
| | 8 | 1 | 11 | 11 | 20 | 5 | 1 | 1 | 25 | 8 | 5 |
| | 3 | 3 | 12 | 6 | 21 | 6 | 1 | 2 | 6 | 8 | 9 |
| | 8 | 4 | 12 | 10 | 22 | 2 | 1 | 2 | 10 | 8 | 18 |
| | 3 | 5 | 18 | 1 5 | 22 | 7 | 1 | 20 | 15 | 9 | 3 7 |
| | 3 | 7 | 13 | 10 | 24 | 0 | 1 | 2 | 24 | 9 | 12 |
| | 3 | 8 | 14 | 0 | 24 | 4 | 1 | 8 | 0 | 9 | 16 |

| | TABLE VI | WEIGHT OF | LIVE CATTLE | BY MEASUREMI | INT. 61 |
|----------------|---|--|--|---|--|
| Girth. | Length. | Imperial Stones. | Smithfield Stones. | Cwts. | Scores. |
| Ft. In. 4 0 | Ft. In. 3 9 | Sts. Lbs. 14 5 | Sts. Lbs. 25 1 | Cwts. Qrs. Lbs. 1 3 5 | Scs. Lbs. 10 1 |
| 4 1 | 2 7 2 8 2 9 2 10 2 11 3 0 3 1 2 3 3 4 5 6 7 8 8 8 6 7 8 | $\begin{array}{cccccccccccccccccccccccccccccccccccc$ | $\begin{array}{cccccccccccccccccccccccccccccccccccc$ | $\begin{array}{cccccccccccccccccccccccccccccccccccc$ | $\begin{array}{cccccccccccccccccccccccccccccccccccc$ |
| | 3 9 3 10 | 14 8 14 13 15 4 | $ \begin{array}{cccc} 25 & 4 \\ 26 & 1 \\ 26 & 6 \end{array} $ | $ \begin{array}{cccccccccccccccccccccccccccccccccccc$ | $ \begin{array}{ccccccccccccccccccccccccccccccccc$ |
| 4 2 | 2 7 2 8 2 9 2 10 2 11 3 0 3 1 3 2 3 3 4 4 5 5 8 6 3 7 8 8 8 3 9 8 10 8 11 9 8 10 9 8 10 9 8 10 9 8 10 9 8 10 9 9 10 9 10 9 10 9 10 9 10 9 10 9 10 | $\begin{array}{cccccccccccccccccccccccccccccccccccc$ | $\begin{array}{cccccccccccccccccccccccccccccccccccc$ | $ \begin{array}{cccccccccccccccccccccccccccccccccccc$ | $\begin{array}{cccccccccccccccccccccccccccccccccccc$ |
| 4 3 | 2 8 2 9 2 10 2 11 3 0 3 1 3 2 3 3 3 4 | $\begin{array}{cccccccccccccccccccccccccccccccccccc$ | 20 1 20 6 21 3 22 0 22 5 23 2 28 7 24 4 25 1 E | $ \begin{array}{cccccccccccccccccccccccccccccccccccc$ | 8 1 8 6 8 11 8 16 9 1 9 6 9 11 9 16 10 1 |

| Girth. | Ler | gth. | Imp Stor | erial acs. | Smith | nfield nes. | | Cwts | 5. | Scor | res. |
|---------|-----|------|-------------|---------------|-------|----------------|-------|------|------|------|------|
| Ft. In. | Ft. | In, | Sts. | Lbs. | Sts. | Lbs. | Cwts. | Qrs. | Lbs. | Scs. | Lbs. |
| 4 3 | 3 | 5 | 14 | 10 | 25 | 6 | 1 | 3 | 10 | 10 | 6 |
| - | 3 | 6 | 15 | 1 | 26 | 3 | 1 | 3 | 15 | 10 | 11 |
| | 3 | 7 | 15 | 6 | 27 | 0 | 1 | 3 | 20 | 10 | 16 |
| | 3 | 8 | 15 | 11 | 27 | 5 | 1 | 3 | 25 | 11 | 1 |
| | 3 | 9 | 16 | 2 | 28 | 2 | 2 | 0 | 2 | 11 | 0 |
| | 0 | 10 | 10 | 10 | 28 | 1 | 2 | 0 | 10 | 11 | 10 |
| | 0 | 11 | 10 | 12 | 29 | 1 | 2 | 0 | 12 | 19 | 10 |
| | * | 0 | 17 | 0 | 00 | 1 | 2 | 0 | 11 | 12 | 1 |
| 4 4 | 2 | 8 | 11 | 13 | 20 | 7 | 1 | 1 | 27 | 8 | 7 |
| | 2 | 9 | 12 | 5 | 21 | 5 | 1 | 2 | 5 | 8 | 13 |
| | 2 | 10 | 12 | 10 | 22 | 2 | 1 | 2 | 10 | 8 | 18 |
| | 2 | 11 | 13 | 1 | 22 | 7 | 1 | 2 | 15 | 9 | 8 |
| | 3 | 0 | 13 | 6 | 23 | 4 | 1 | 2 | 20 | 9 | 8 |
| | 3 | 1 | 13 | 12 | 24 | 2 | 1 | 2 | 20 | 9 | 12 |
| | 0 | 2 | 14 | 3 | 24 | 1 | 1 | 3 | 0 | 10 | 19 |
| 1-2 | 0 | 3 | 14 | 19 | 20 | 4 | 1 | 0 | 19 | 10 | * |
| | 0 | * | 14 | 10 | 20 | 0 | 1 | 0 | 10 | 10 | 14 |
| 10.1 | 3 | B | 15 | 10 | 27 | 4 | | 3 | 24 | 11 | 0 |
| 13.4 | 3 | 7 | 18 | 1 | 28 | 1 | 0 | 0 | 1 | 11 | 5 |
| | 3 | 8 | 16 | â | 28 | ê | 2 | 0 | ß | 11 | 10 |
| | 3 | 9 | 16 | 11 | 29 | 3 | 2 | 0 | 11 | 11 | 15 |
| | 3 | 10 | 17 | 3 | 30 | 1 | 2 | 0 | 17 | 12 | 1 |
| 10.1 | 3 | 11 | 17 | 8 | 30 | 6 | 2 | 0 | 22 | 12 | 6 |
| 12.1 | 4 | 0 | 17 | 13 | 31 | 3 | 2 | 0 | 27 | 12 | 11 |
| | 4 | 1 | 18 | 4 | 32 | 0 | 2 | 1 | 4 | 12 | 16 |
| 4 5 | 2 | 9 | 12 | 11 | 22 | 3 | 1 | 2 | 11 | 8 | 19 |
| 1 | 2 | 10 | 13 | 3 | 23 | 1 | î | 2 | 17 | 9 | 5 |
| | 2 | 11 | 13 | 8 | 23 | 6 | î | 2 | 22 | 9 | 10 |
| | 3 | 0 | 14 | 0 | 24 | 4 | 1 | 3 | 0 | 9 | 16 |
| | . 3 | 1 | 14 | 5 | 25 | 1 | 1 | 3 | 5 | 10 | 1 |
| 10.0 | 3 | 2 | 14 | 10 | 25 | 6 | 1 | 3 | 10 | 10 | 6 |
| | 3 | 3 | 15 | 2 | 26 | 4 | 1 | 3 | 16 | 10 | 12 |
| 25.1 | 3 | 4 | 15 | 7 | 27 | 1 | 1 | 3 | 21 | 10 | 17 |
| | 3 | 5 | 15 | 13 | 27 | 7 | 1 | 3 | 27 | 11 | 3 |
| 1 | 3 | 6 | 16 | 4 | 28 | 4 | 2 | 0 | 4 | 11 | 8 |
| 2. 2 | 3 | 7 | 16 | 10 | 29 | 2 | 2 | 0 | 10 | 11 | 14 |
| 1 | 3 | 8 | 17 | 1 | 29 | 7 | 2 | 0 | 15 | 11 | 19 |
| | 3 | 10 | 17 | 0 | 30 | 4 | 2 | 0 | 20 | 12 | 4 |
| | 3 | 10 | 17 | 12 | 31 | 2 | 2 | 0 | 26 | 12 | 10 |
| | 3 | 11 | 18 | 3 | 20 | - | 2 | 1 | 3 | 12 | 10 |
| 15 8 | * | 1 | 18 | 0 | 02 | 0 | 2 | 1 | 14 | 10 | 0 |
| | | _ | 1.14 | | 1111 | | 2 | | | 1.12 | |

| TABLE VIWEIGHT OF LIVE CATTLE BY MEASUREMENT. 63 | | | | | | | | | | | | | |
|--|-----|--------|-------------|---------------|-------|----------------|-------|------|-------|---------|------|--|--|
| Girth | L | ength. | Imp Stor | erial nes. | Smith | nfield 168. | | Cwts | | Scores. | | | |
| Ft. D | . F | . In. | Sts. | Lbs, | Sts. | Lbs, | Cwts. | Qrs. | Lbs. | Scs. | Lbs. | | |
| 4 (| 1 2 | 9 | 13 | 4 | 23 | 2 | 1 | 2 | 18 | 9 | 6 | | |
| | 1 2 | 10 | 13 | 10 | 24 | 0 | 1 | 2 | 24 | 9 | 12 | | |
| | 1.2 | 11 | 14 | 1 | 24 | 5 | 1 | 3 | 1 | 9 | 17 | | |
| | 1 3 | 0 | 14 | 7 | 25 | 3 | | 3 | .7 | 10 | 3 | | |
| | 3 | 1 | 14 | 13 | 26 | 1 | 1 | 3 | 13 | 10 | 9 | | |
| | 3 | 2 | 15 | 4 | 26 | 6 | 1 | 3 | 18 | 10 | 14 | | |
| | 0 | 0 | 10 | 10 | 27 | 2 | | 0 | 24 | 11 | 0 | | |
| | 0 | 4 | 10 | 4 | 20 | 2 | 2 | 0 | 2 | 11 | 11 | | |
| | 0 | 0 | 10 | 19 | 20 | 1 | 0 | 0 | 10 | 11 | 1/7 | | |
| | 0 | 0 | 10 | 10 | 20 | 0 | 0 | 0 | 10 | 19 | 11 | | |
| | 9 | 8 | 17 | 10 | 31 | 0 | 2 | 0 | 24 | 12 | 8 | | |
| | 1 0 | | 19 | 10 | 91 | R | 2 | 1 | 4 H . | 12 | 14 | | |
| | 1 3 | 10 | 18 | 7 | 32 | 3 | 2 | î | 7 | 12 | 19 | | |
| | 1 3 | 11 | 18 | 18 | 33 | ĭ | 2 | î | 13 | 13 | 5 | | |
| | 4 | Ô | 19 | 5 | 33 | 7 | 2 | î | 19 | 13 | 11 | | |
| | 4 | ĩ | 19 | 10 | 34 | 4 | 2 | î | 24 | 18 | 16 | | |
| | 4 | 2 | 20 | 2 | 35 | 2 | 2 | 2 | 2 | 14 | 2 | | |
| | 4 | 8 | 20 | 8 | 36 | 0 | 2 | 2 | 8 | 14 | 8 | | |
| 4 7 | 1 9 | 10 | 14 | 8 | 24 | 7 | 1 | 3 | 8 | 9 | 19 | | |
| | 1 2 | 11 | 14 | 9 | 25 | 5 | l î. | 3 | 8 | 10 | 5 | | |
| | 1 3 | 0 | 15 | 1 | 26 | 3 | l î. | 3 | 15 | 10 | 11 | | |
| | 1 8 | ĭ | 15 | 6 | 27 | 0 | î | 8 | 20 | 10 | 16 | | |
| | 1 3 | 2 | 15 | 12 | 27 | 6 | l ī | 3 | 26 | 11 | 2 | | |
| | 1 8 | 3 | 16 | 4 | 28 | 4 | 2 | 0 | 4 | 11 | 8 | | |
| | 1 3 | 4 | 16 | 10 | 29 | 2 | 2 | 0 | 10 | 11 | 14 | | |
| | 3 | 5 | 17 | 2 | 30 | 0 | 2 | 0 | 16 | 12 | 0 | | |
| | 3 | 6 | 17 | 8 | 30 | 6 | 2 | 0 | 22 | 12 | 6 | | |
| | 3 | 7 | 18 | 0 | 31 | 4 | 2 | 1 | 0 | 12 | 12 | | |
| | 3 | 8 | 18 | 5 | 32 | 1 | 2 | 1 | 5 | 12 | 17 | | |
| | 8 | . 9 | 18 | 11. | 32 | 7 | 2 | 1 | 11 | 13 | 3 | | |
| | 3 | 10 | 19 | 3 | 33 | 5 | 2 | 1 | 17 | 13 | 9 | | |
| | 3 | 11 | 19 | 9 | 34 | 3 | 2 | 1 | 23 | 13 | 15 | | |
| | 1 4 | 0 | 20 | 1 | 35 | 1 | 2 | 2 | 1 | 14 | 1 | | |
| | 1 4 | 1 | 20 | 7 | 35 | 7 | 2 | 2 | 7 | 14 | 7 | | |
| | 1 1 | 2 | 20 | 13 | 36 | 0 | 2 | Z | 13 | 14 | 13 | | |
| | 1 4 | 3 | 21 | 4 | 37 | 2 | 2 | 2 | 18 | 14 | 18 | | |
| | 4 | 4 | 21 | 10 | 38 | 0 | 2 | 2 | 24 | 15 | 4 | | |
| 4 8 | 2 | 10 | 14 | 10 | 25 | 6 | 1 | 3 | 10 | 10 | 6 | | |
| | 2 | 11 | 15 | 2 | 26 | 4 | 1 | 3 | 16 | 10 | 12 | | |
| | 9 | 0 | 15 | 8 | 27 | 2 | 1 | 3 | 22 | 10 | 18 | | |
| | 3 | 1 | 16 | 0 | 28 | 0 | 2 | 0 | 0 | 11 | 4 | | |
| | 8 | 2 | 16 | 6 | 28 | 6 | 2 | 0 | 6 | 11 | 10 | | |
| | 1 0 | 0 | 1 10 | 10 | 0.0 | * | 0 | 0 | 10 | 11 | 177 | | |

| 64 | TABL | E VI | -WEIGI | IT OF | LIVE C | ATTLE | BY M | TEAS | UREM | ENT. | |
|--|------|-------|--------|---------------|---------------|----------------|-------|------|------|------|------|
| Girth. | Len | igth. | Impe | erial nes. | Smith Stor | nfield nes. | | Cwts | | Scor | res. |
| Ft. In. | Ft. | In. | Sts. | Lbs. | Sts. | Lbs. | Cwts. | Qrs. | Lbs. | Scs. | Lbs. |
| 4 8 | 3 | 4 | 17 | 5 | 30 | 3 | 2 | 0 | 19 | 12 | 3 |
| | 3 | 5 | 17 | 11 | 31 | 1 | 2 | 0 | 25 | 12 | 9 |
| | 3 | 6 | 18 | 3 | 31 | 7 | 2 | 1 | 3 | 12 | 15 |
| | 3 | 7 | 18 | 9 | 32 | 5 | 2 | 1 | 9 | 13 | 1 |
| 10 195 | 3 | 8 | 19 | 1 | 33 | 3 | 2 | 1 | 15 | 13 | 7 |
| | 3 | 9 | 19 | 7 | 34 | 1 | 2 | 1 | 21 | 13 | 13 |
| | 3 | 10 | 19 | 13 | 34 | 7 | 2 | 1 | 27 | 13 | 19 |
| 1.44 | 3 | 11 | 20 | 5 | 35 | 5 | 2 | 2 | 5 | 14 | 5 |
| 1.1 | 4 | 0 | 20 | 11 | 36 | 3 | 2 | 2 | 11 | 14 | 11 |
| | 4 | 1 | 21 | 3 | 37 | 1 | 2 | 2 | 17 | 14 | 17 |
| | 4 | 2 | 21 | 9 | 37 | 7 | 2 | 2 | 23 | 15 | 3 |
| | 4 | 3 | 22 | 1 | 38 | 5 | 2 | 3 | 1 | 15 | 9 |
| | 4 | 4 | 22 | 7 | 39 | 3 | 2 | 3 | 7 | 15 | 15 |
| | 4 | 5 | 22 | 13 | 40 | 1 | 2 | 3 | 13 | 16 | 1 |
| 49 | 2 | 11 | 15 | 10 | 27 | 4 | 1 | 3 | 24 | 11 | 0 |
| | 3 | 0 | 16 | 2 | 28 | 2 | 2 | 0 | 2 | 11 | 6 |
| 1 | 3 | 1 | 16 | 9 | 29 | 1 | 2 | 0 | 9 | 11 | 13 |
| 1. 5 | 3 | 2 | 17 | 1 | 29 | 7 | 2 | 0 | 15 | 11 | 19 |
| 1. | 3 | 3 | 17 | 7 | 30 | 5 | 2 | 0 | 21 | · 12 | 5 |
| 1.1.1 | 3 | 4 | 17 | 13 | 31 | 3 | 2 | 0 | 27 | 12 | 11 |
| 1000 | 3 | 5 | 18 | 6 | 32 | 2 | 2 | 1 | 6 | 12 | 18 |
| 176-11 | 3 | 6 | 18 | 12 | 33 | 0 | 2 | 1 | 12 | 13 | 4 |
| | 3 | 7 | 19 | 4 | 33 | 6 | 2 | 1 | 18 | 13 | 10 |
| | 3 | 8 | 19 | 11 | 34 | 5 | 2 | 1 | 25 | 13 | 17 |
| | 3 | 9 | 20 | 3 | 35 | 3 | 2 | 2 | 3 | 14 | 3 |
| 7 1 1 1 | 3 | 10 | 20 | 9 | 36 | 1 | 2 | 2 | 9 | 14 | 9 |
| 1 1 | 3 | 11 | 21 | 1 | 36 | 7 | 2 | 2 | 15 | 14 | 15 |
| | 4 | 0 | 21 | 8 | 37 | 6 | 2 | 2 | 22 | 15 | 2 |
| | 4 | 1 | 22 | 0 | 38 | 4 | 2 | 3 | 0 | 15 | 8 |
| | 4 | 2 | 22 | 6 | 39 | 2 | 2 | 3 | 6 | 15 | 14 |
| | 4 | 3 | 22 | 13 | 40 | 1 | 2 | 3 | 13 | 16 | 1 |
| | 4 | 4 | 23 | 5 | 40 | 7 | 2 | 3 | 19 | 16 | 7 |
| | 4 | 5 | 23 | 11 | 41 | 5 | 2 | 3 | 25 | 16 | 13 |
| | 4 | 6 | 24 | 3 | 42 | 3 | 3 | 0 | 3 | 16 | 19 |
| 4 10 | 2 | 11 | 16 | 4 | 28 | 4 | 2 | 0 | 4 | 11 | 8 |
| 150 | 3 | 0 | 16 | 10 | 29 | 2 | 2 | 0 | 10 | 11 | 14 |
| | 3 | 1 | 17 | 3 | 30 | 1 | 2 | 0 | 17 | 12 | 1 |
| | 3 | 2 | 17 | 9 | 30 | 7 | 2 | 0 , | 23 | 12 | 7 |
| | 3 | 3 | 18 | 2 | 31 | 6 | 2 | 1 | 2 | 12 | 14 |
| | 3 | 4 | 18 | 8 | 32 | 4 | 2 | 1 | 8 | 13 | 0 |
| | 3 | 5 | 19 | 1 | 33 | 3 | 2 | 1 | 15 | 13 | 7 |
| | 3 | 6 | 19 | 7 | 34 | 1 | 2 | 1 | 21 | 13 | 13 |
| | 3 | 7 | 20 | 0 | 35 | 0 | 2 | 2 | 0 | 14 | 0 |
| | 3 | 8 | 20 | 6 | 35 | 6 | 2 | 2 | 6 | 14 | 6 |
| | | | | | | | | | | | |
| | TABI | æ vi | -WEIG | HT OF | LIVE | DATTL | E BY 1 | MEAS | UREM | ENT. | 65 |
|---------|------|------|--------------|--------------|---------------|----------------|--------|-------|------|------|------|
| Girth. | Len | gth. | 1mpe Stor | rial 168. | Smith Stor | ifield tes. | 0 | Cwts, | | Scor | ев. |
| Ft. In. | Ft. | In. | Sts. | Lbs. | Sts. | Lbs. | Cwis. | Qrs. | Lbs. | Scs. | Lbs. |
| 4 10 | 3 | 9 | 20 | 13 | 36 | 5 | 2 | 2 | 13 | 14 | 13 |
| | 3 | 10 | 21 | 5 | 37 | 3 | 2 | 2 | 19 | 14 | 19 |
| | 3 | 11 | 21 | 12 | 38 | 2 | 2 | 2 | 26 | 15 | 6 |
| | 4 | 0 | 22 | 4 | 39 | 0 | 2 | 3 | 4 | 15 | 12 |
| | 4 | 1 | 22 | 11 | 39 | 7 | 2 | 3 | 11 | 15 | 19 |
| | 4 | 2 | 23 | 3 | 40 | 5 | 2 | 3 | 17 | 16 | 5 |
| | 4 | 3 | 23 | 10 | 41 | 4 | 2 | 3 | 24 | 16 | 12 |
| | 4 | 4 | 24 | 2 | 42 | 2 | 3 | 0 | 2 | 16 | 18 |
| | 4 | 5 | 24 | 9 | 43 | 1 | - 3 | 0 | 9 | 17 | 5 |
| | 4 | 6 | 25 | 1 | 43 | 7 | 3 | 0 | 15 | 17 | 11 |
| | 4 | 7 | 25 | 8 | 44 | 6 | 3 | 0 | 22 | 17 | 18 |
| 4 11 | 3 | 0 | 17 | 4 | 30 | 2 | 2 | 0 | 18 | 12 | 2 |
| | 3 | 1 | 17 | 11 | 31 | 1 | 2 | 0 | 25 | 12 | 9 |
| | 3 | 2 | 18 | 4 | 32 | 0 | 2 | 1 | 4 | 12 | 16 |
| | 8 | 3 | 18 | 11 | 32 | 7 | 2 | 1 | 11 | 13 | 3 |
| | 8 | 4 | 19 | 3 | 33 | 5 | | 1 | 17 | 13 | 9 |
| | 3 | 0 | 19 | 10 | 34 | 4 | 1 2 | 1 | 24 | 13 | 16 |
| | 3 | 0 | 20 | 3 | 30 | 3 | 2 | Z | 3 | 14 | 3 |
| | 3 | 1 | 20 | 10 | 30 | Z | 2 | 2 | 10 | . 14 | 10 |
| | 0 | 8 | 21 | 2 | 34 | | | 2 | 16 | 14 | 10 |
| | 0 | 10 | 21 | 8 | 04 | 6 | 2 | 20 | 20 | 10 | 10 |
| | 0 | 10 | 00 | 2 | 00 | 4 | 2 | 0 | 2 | 10 | 10 |
| | 0 | 11 | 00 | 1 | 00 | * | 2 | 0 | 15 | 10 | 10 |
| | 1 4 | 1 | 00 | - | 41 | 0 | 0 | 0 | 10 | 10 | 10 |
| | 1 7 | 0 | 20 | 1 | 49 | 1 | 2 | 0 | 1 | 10 | 17 |
| | | 2 | 24 | 17 | 49 | - | 3 | 0 | | 17 | |
| | 4 | 4 | 25 | | 4.9 | å. | 3 | 0 | 14 | 17 | 10 |
| | 4 | 5 | 25 | 7 | 44 | 5 | 3 | 0 | 21 | 17 | 17 |
| | 1 4 | ß | 26 | ó | 45 | 4 | 3 | 1 | 0 | 18 | 4 |
| | A A | 7 | 26 | ß | 48 | 2 | 3 | î | ß | 18 | 10 |
| | 4 | 8 | 26 | 13 | 47 | 1 | 3 | 1 | 13 | 18 | 17 |
| 5 0 | 3 | 0 | 17 | 13 | 81 | 3 | 2 | 0 | 27 | 12 | 11 |
| | 3 | 1 | 18 | 6 | 32 | 2 | 2 | 1 | 6 | 12 | 18 |
| | 3 | 2 | 18 | 13 | 33 | 1 | 2 | 1 | 13 | 13 | 5 |
| | 3 | 3 | 19 | 6 | 34 | 0 | 2 | 1 | 20 | 13 | 12 |
| | 3 | 4 | 19 | 13 | 84 | 7 | 2 | 1 | 27 | 13 | 19 |
| | 1 3 | 5 | 20 | 5 | 35 | 5 | 2 | 2 | 5 | 14 | 5 |
| | 3 | 6 | 20 | 12 | 36 | 4 | 2 | 2 | 12 | 14 | 12 |
| | 3 | 7 | 21 | 5 | 37 | 3 | 2 | 2 | 19 | 14 | 19 |
| | 8 | 8 | 21 | 12 | 38 | 2 | 2 | 2 | 26 | 15 | 6 |
| | 8 | 9 | 22 | 5 | 39 | 1 | 2 | 3 | 5 | 15 | 13 |
| | 8 | 10 | 22 | 12 | 40 | 0 | 2 | 3 | 12 | 16 | 0 |
| | 1 3 | 11 | 23 | 5 | 40 | 7 | 2 | 3 | 19 | 16 | 7 |

| 66 | TABL | e vi | -WRIG | HT OF | LIVE C | ATTLE | BYB | (EAS | UREM | ent. | |
|---------|------|------|-------|-----------------|--------|----------------|-------|------|--------|------|------|
| Girth. | Ler | gth. | Im | perial ones. | Smith | ifield aes. | | Cwti | 3. | Scot | 10s. |
| Ft. In. | Ft. | In. | Sts. | Lbs. | Sts. | Lbs. | Cwts. | Qrs | , Lbs. | Scs. | Lbs. |
| 5 0 | 4 | 0 | 23 | 12 | 41 | 6 | 2 | 3 | 26 | 16 | 14 |
| | 4 | 1 | 24 | 5 | 42 | 5 | 3 | 0 | 5 | 17 | 1 |
| | 4 | 2 | 24 | 12 | 43 | 4 | 3 | 0 | 12 | 17 | 8 |
| | 4 | 3 | 25 | Б | 44 | 3 | 3 | 0 | 19 | 17 | 15 |
| | 4 | 4 | 25 | 12 | 45 | 2 | 3 | 0 | 26 | 18 | 2 |
| | 4 | 5 | 26 | 5 | 46 | -1 | 8 | 1 | 5 | 18 | 9 |
| | 4 | 6 | 26 | 12 | 47 | 0 | 3 | 1 | 12 | 18 | 16 |
| | 4 | 7 | 27 | 5 | 47 | 7 | 3 | 1 | 19 | 19 | 3 |
| | 4 | 8 | 27 | 12 | 48 | 6 | 3 | 1 | 26 | 19 | 10 |
| - | 4 | 9 | 28 | 5 | 49 | 5 | 8 | 2 | 5 | 19 | 17 |
| 5 1 | 3 | 1 | 19 | 0 | 33 | 2 | 2 | 1 | 14 | 13 | 6 |
| | 3 | 2 | 19 | 7 | 34 | 1 | 2 | 1 | 21 | 13 | 13 |
| - | 3 | 3 | 20 | 1 | 35 | 1 | 2 | 2 | 1 | 14 | 1 |
| | 8 | 4 | 20 | 8 | 36 | 0 | 2 | 2 | 8 | 14 | 8 |
| | 3 | 5 | 21 | 1 | 36 | 7 | 2 | 2 | 15 | 14 | 16 |
| | 3 | 6 | 21 | 8 | 37 | 6 | 2 | 2 | 22 | 16 | 2 |
| | 3 | 7 | 22 | 1 | 38 | 5 | 2 | 8 | 1 | 15 | 9 |
| | 8 | 8 | 22 | 9 | 89 | 5 | 2 | 8 | 9 | 15 | 17 |
| | 8 | 9 | 23 | 2 | 40 | 4 | 2 | 8 | 16 | 16 | 4 |
| | 8 | 10 | 23 | 9 | 41 | 3 | 2 | 8 | 23 | 16 | 11 |
| | 8 | 11 | 24 | 2 | 42 | 2 | 3 | 0 | 2 | 16 | 18 |
| | 4 | 0 | 24 | 9 | 43 | 1 | 3 | 0 | 9 | 17 | 0 |
| | 4 | 1 | 25 | 3 | 44 | 1 | 8 | 0 | 17 | 17 | 13 |
| | 4 | 2 | 25 | 10 | 45 | 0 | 3 | 0 | 24 | 18 | 0 |
| | 4 | 8 | 26 | 8 | 40 | 7 | 8 | 1 | 3 | 18 | 7 |
| | 4 | 4 | 26 | 10 | 46 | 6 | 8 | 1 | 10 | 18 | 14 |
| | .4 | 0 | 27 | 8 | 47 | 0 | 3 | 1 | 17 | 19 | 1 |
| | 4 | 0 | 27 | 11 | 48 | 0 | 8 | 1 | 20 | 19 | 10 |
| | 4 | 0 | 28 | 11 | 49 | * | 3 | Z | 4 | 19 | 10 |
| | | 0 | 20 | 11 | 00 | 0 | 0 | 20 | 10 | 20 | 10 |
| | | 10 | 29 | 11 | 01 | 2 | 0 | 2 | 10 | 20 | 10 |
| | 2 | 10 | 28 | 11 | 02 | T | 0 | 2 | 20 | 20 | 11 |
| 5 2 | 3 | 1 | 19 | 9 | 34 | 3 | 2 | 1 | 23 | 13 | 15 |
| | 3 | 2 | 20 | 3 | 35 | 3 | 2 | 2 | 3 | 14 | 3 |
| | 3 | 3 | 20 | 10 | 36 | 2 | 2 | 2 | 10 | 14 | 10 |
| | 3 | 4 | 21 | 3 | 37 | 1 | 2 | 2 | 17 | 14 | 17 |
| | 3 | 5 | 21 | 11 | 38 | 1 | 2 | 2 | 25 | 15 | 5 |
| | 3 | 6 | 22 | 4 | 39 | 0 | 2 | 3 | 4 | 15 | 12 |
| | 3 | 7 | 22 | 12 | 40 | 0 | 2 | 3 | 12 | 16 | 0 |
| | 8 | 8 | 23 | 5 | . 40 | 7 | 2 | 3 | 19 | 16 | 7 |
| | 8 | 9 | 23 | 13 | 41 | 7 | 2 | 3 | 27 | 16 | 15 |
| | 3 | 10 | 24 | 6 | 42 | 6 | 3 | 0 | 6 | 17 | 2 |
| | 8 | 11 | 24 | 13 | 43 | 5 | 3 | 0 | 13 | 17 | 9 |
| 4 | 4 | 0] | 25 | 7 | 44 | 5 | 3 | 0 | 21 | 17 | 17 |

| | TABI | E VI | -WEI | CHT OF | LIVE | CATTL | E BY I | MEAS | SUREM | ENT. | 67 |
|---------|------|-------|------|-----------------|------|----------------|--------|------|--------|------|------|
| Girth. | Ler | igth. | Im | perial ones. | Stor | afield nes. | | Cwts | 3. | Sco | res. |
| Ft. In. | Ft. | In. | Sts. | Lbs. | Sts. | Lbs. | Cwts. | Qrs | , Lbs. | Scs. | Lbs. |
| 5 2 | 4 | 1 | 26 | 0 | 45 | 4 | 3 | 1 | 0 | 18 | 4 |
| | 4 | 2 | 26 | 8 | 46 | 4 | 3 | 1 | 8 | 18 | 12 |
| | 4 | 3 | 27 | 1 | 47 | 3 | 3 | 1 | 15 | 18 | 19 |
| | 4 | 4 | 27 | 9 | 48 | 3 | 3 | 1 | 23 | 19 | 7 |
| | 4 | 5 | 28 | 2 | 49 | 2 | 3 | 2 | 2 | 19 | 14 |
| | 4 | 6 | 28 | 10 | 50 | 2 | 3 | 2 | 10 | 20 | 2 |
| | 4 | 7 | 29 | 3 | 51 | 1 | 3 | 2 | 17 | 20 | 9 |
| | 4 | 8 | 29 | 10 | 52 | 0 | 3 | 2 | 24 | 20 | 16 |
| | 4 | 9 | 30 | 4 | 53 | 0 | 3 | 3 | 4 | 21 | 4 |
| | 4 | 10 | 30 | 11 | 53 | 7 | 3 | 3 | 11 | 21 | 11 |
| | 4 | 11 | 31 | 5 | 54 | 7 | 8 | 3 | 19 | 21 | 19 |
| 5 3 | 3 | 2 | 20 | 12 | 36 | 4 | 2 | 2 | 12 | 14 | 12 |
| | 3 | 3 | 21 | 5 | 37 | 3 | 2 | 2 | 19 | .14 | 19 |
| | 3 | - 4 | 21 | 13 | 38 | 8 | 2 | 2 | 27 | 15 | 7 |
| | 3 | 5 | 22 | 7 | 39 | 3 | 2 | 3 | 7 | 15 | 15 |
| | 3 | 6 | 23 | 0 | 40 | 2 | 2 | 3 | 14 | 16 | 2 |
| | 3 | 7 | 23 | 8 - | 41 | 2 | 2 | 3 | 22 | 16 | 10 |
| | 3 | 8 | 24 | 2 | 42 | 2 | 3 | 0 | 2 | 16 | 18 |
| | 3 | 9 | 24 | 9 | 43 | 1 | 3 | 0 | 9 | 17 | 5 |
| | 3 | 10 | 25 | 3 | 44 | 1 | 3 | 0 | 17 | 17 | 13 |
| | 3 | 11 | 25 | 11 | 45 | 1 | 3 | 0 | 25 | 18 | 1 |
| | 4 | 0 | 26 | 4 | 46 | 0 | 3 | 1 | 4 | 18 | 8 |
| | 4 | 1 | 26 | 12 | 47 | 0 | 3 | 1 | 12 | 18 | 16 |
| | 4 | 2 | 27 | 6 | 48 | 0 | 8 | 1 | 20 | 19 | 4 |
| | 4 | 3 | 28 | 0 | 49 | 0 | 3 | 2 | 0 | 19 | 12 |
| | 4 | 4 | 28 | 7 | 49 | 7 | 3 | 2 | 7 | 19 | 19 |
| | 4 | 5 | 29 | 1 | 50 | 7 | 3 | 2 | 15 | 20 | 7 |
| | 4 | 6 | 29 | 9 | 51 | 7 | 3 | 2 | 23 | 20 | 15 |
| | 4 | 7 | 30 | 2 | 52 | 6 | 3 | 3 | 2 | 21 | 2 |
| | 4 | 8 | 30 | 10 | 53 | 6 | 3 | 3 | 10 | 21 | 10 |
| | 4 | 9 | 31 | 4 | 54 | 6 | 3 | 3 | 18 | 21 | 18 |
| | 4 | 10 | 31 | 11 | 55 | 5 | 3 | 8 | 25 | 22 | 5 |
| | 4 | 11 | 32 | 5 | 56 | 5 | 4 | 0 | 5 | 22 | 13 |
| | 5 | 0 | 32 | 13 | 57 | 5 | 4 | 0 | 13 | 23 | 1 |
| 5 4 | 3 | 2 | 21 | 7 | 37 | 5 | 2 | 2 | 21 | 15 | 1 |
| | 3 | 3 | 22 | 1 | 38 | 5 | 2 | 3 | 1 | 15 | 9 |
| | 3 | 4 | 22 | 9 | 39 | 5 | 2 | 3 | 9 | 15 | 17 |
| | 3 | 5 | 23 | 3 | 40 | 5 | 2 | 3 | 17 | 16 | 5 |
| | 3 | 6 | 23 | 11 | 41 | 5 | 2 | 3 | 25 | 16 | 13 |
| | 3 | 7 | 24 | 5 | 42 | 5 | 3 | 0 | 5 | 17 | 1 |
| | 3 | 8 | 24 | 13 | 43 | 5 | 3 | 0 | 13 | 17 | 9 |
| | 3 | 9 | 25 | 7 | 44 | 5 | 3 | 0 | 21 | 17 | 17 |
| | 3 | 10 | 26 | 0 | -45 | 4 | 3 | 1 | 0 | 18 | 4 |
| | 3 | 11 | 26 | 8 | 46 | 4 | 8 | 1 | 8 | 18 | 12 |
| | 3 | 11 | 26 | 8 | 46 | 4 | 3 | 1 | 8 | 18 | 18 |

| 68 | | FABLE | vi | -WEIG | et of | LIVE CA | TTLE | BY M | EASI | UREME | NT. | |
|-----|------|-------|----------|-------|-----------------|---------|----------------|-------|----------|-------|------|------|
| Gi | rth. | Ler | igth. | Im | perial ones. | Smith | hfield nes. | 1 | Cwi | 8. | See | res. |
| Ft. | In. | Ft. | In. | Sts. | Lbs, | Sts. | Lbs. | :Cwts | Qrs | Lbs. | Scs. | Lbs. |
| 5 | 4 | 4 | 0 | 27 | 2 | 47 | 4 | 3 | 1 | 16 | 19 | 0 |
| | | 4 | 1 | 27 | 10 | 48 | 4 | 3 | 1 | 24 | 19 | 8 |
| | | 4 | 2 | 28 | 4 | 49 | 4 | 1 8 | 2 | 4 | 19 | 16 |
| | | 4 | 3 | 28 | 12 | 50 | 4 | 3 | 2 | 12 | 20 | 4 |
| | | 4 | 4 | 29 | 6 | 51 | 4 | 3 | 2 | 20 | 20 | 12 |
| | | 4 | 5 | 30 | 0 | 52 | 4 | 8 | 3 | 0 | 21 | 0 |
| | | 4 | 6 | 30 | 8 | 53 | 4 | 8 | 3 | 8 | 21 | 8 |
| | | 4 | 7 | 31 | 2 | 54 | 4 | 3 | 3 | 16 | 21 | 16 |
| | | 4 | 8 | 31 | 10 | 55 | 4 | 3 | 3 | 24 | 22 | 4 |
| | | 4 | 9 | 32 | 4 | 56 | 4 | 4 | 0 | 4 | 22 | 12 |
| | | 4 | 10 | 32 | 12 | 57 | 4 | 4 | 0 | 12 | 23 | 0 |
| | | 4 | 11 | 33 | 5 | 58 | 3 | 4 | 0 | 19 | 23 | 7 |
| | | 5 | 0 | - 33 | 13 | 59 | 3 | 4 | 0 | 27 | 23 | 15 |
| | | 5 | 1 | 34 | 7 | 60 | 3 | 4 | 1 | 7 | 24 | 3 |
| 6 | 5 | 3 | 3 | 22 | 11 | 39 | 7 | 2 | 3 | 11 | 15 | 19 |
| | | 3 | 4 | 23 | 5 | 40 | 7 | 2 | 3 | 19 | 16 | 7 |
| | | 3 | 5 | 23 | 13 | 41 | 7 | 2 | 3 | 27 | 16 | 15 |
| | | 3 | 6 | 24 | 7 | 42 | 7 | 3 | 0 | 7 | 17 | 3 |
| | | 3 | 7 | 25 | 1 | 43 | 7 | 3 | 0 | 15 | 17 | 11 |
| | | 3 | 8 | 25 | 10 | , 45 | 0 | 3 | 0 | 24 | 18 | 0 |
| | | 3 | 9 | 26 | 4 | 46 | 0 | 3 | 1 | 4 | 18 | 8 |
| | | 3 | 10 | 26 | 12 | 47 | 0 | 3 | 1 | 12 | 18 | 16 |
| | | - 3 | 11 | 27 | 6 | 48 | 0 | 3 | 1 | 20 | 19 | 4 |
| | | 4 | 0 | 28 | 0 | 49 | 0 | 3 | 2 | 0 | 19 | 12 |
| | | 4 | 1 | 28 | 8 | 50 | 0 | 3 | 2 | 8 | 20 | 0 |
| | | 4 | 2 | 29 | 3 | 51 | 1 | 3 | 2 | 17 | 20 | 9 |
| | | 4 | 3 | 29 | 11 | 52 | 1 | 3 | 2 | 25 | 20 | 17 |
| | | 4 | 4 | 30 | 5 | 53 | 1 | 3 | 3 | 5 | 21 | 5 |
| | | 4 | 8 | 30 | 13 | 54 | 1 | 3 | 3 | 13 | 21 | 13 |
| | | 4 | 6 | 31 | 7 | 55 | 1 | 3 | 3 | 21 | 22 | 1 |
| | | 4 | 7 | 32 | 1 | 56 | 1 | 4 | 0 | 1 | 22 | 9 |
| | | 4 | 8 | 32 | 10 | 67 | 2 | 4 | 0 | 10 | 22 | 18 |
| | | 4 | 9 | 33 | 4 | 58 | 2 | 4 | 0 | 18 | 23 | 6 |
| | | 4 | 10 | 33 | 12 | 59 | 2 | 4 | 0 | 26 | 23 | 14 |
| | | 4 | 11 | 34 | 0 | 60 | 2 | 4 | 1 | 0 | 24 | 20 |
| | | 0 | 0 | 00 | 0 | 61 | 2 | 4 | 1 | 14 | 24 | 10 |
| | | 0 | 1 | 35 | 9 | 62 | 3 | 4 | 1 | 23 | 24 | 19 |
| | | 0 | 2 | 30 | 3 | 63 | 3 | 4 | 2 | 3 | 25 | 7 |
| 5 | 6 | 3 | 3 | 23 | 7 | 41 | 1 | 2 | 8 | 21 | 16 | 9 |
| | | 3 | 4 | 24 | 1 | 42 | 1 | 3 | 0 | 1 | 16 | 17 |
| | 1 | 3 | 5 | 24 | 9 | 43 | 1 | 3 | 0 | 9 | 17 | 5 |
| | | 3 | 6 | 25 | 4 | 44 | 2 | 3 | 0 | 18 | 17 | 14 |
| | | 3 | 7 | 25 | 12 | 45 | 2 | 3 | 0 | 26 | 18 | 2 |
| | | 3 | 81 | 26 | 7 | 46 | 8 | 3 | 1 | 7 | 18 | 11 |
| | | | | | | | | | | | | |

| | TABL | z vi | -WEIG | DHT OF | LIVE C | ATTLE | BY B | TEAS | UREM | en t . | 69 |
|---------|------|-----------------------------------|-------|-----------------|---------------|----------------|-------|----------|------|---------------|------|
| Girth. | Lei | Length. Ft. In. 3 9 3 10 | | perial ones. | Smith Stor | nfield nes. | | Cwts | l. | Sea | rea, |
| Ft. In. | Ft. | In. | sts. | Lbs. | Sts. | Lbs. | Cwts. | Qrs. | Lbs. | Scs. | Lbs. |
| 56 | 3 | 9 | 27 | 1 | 47 | 3 | 3 | 1 | 15 | 18 | 19 |
| | 3 | 10 | 27 | 10 | 48 | 4 | 8 | 1 | 24 | 19 | 8 |
| | 3 | 11 | 28 | 4 | 49 | 4 | 3 | 2 | 4 | 19 | 16 |
| | 4 | 0 | 28 | . 12 | 50 | 4 | 8 | 2 | 12 | 20 | 4 |
| | 4 | 1 | 29 | 7 | 51 | 5 | 3 | 2 | 21 | 20 | 13 |
| | 4 | 2 | 30 | 1 | 52 | 5 | 3 | 3 | 1 | 21 | 1 |
| | 4 | 3 | 30 | 10 | 53 | 6 | 8 | 3 | 10 | 21 | 10 |
| | 4 | 4 | 31 | 4 | 54 | 6 | 3 | 3 | 18 | 21 | 18 |
| | 4 | 5 | 31 | 13 . | 55 | 7 | 8 | 3 | 27 | 22 | 7 |
| | 4 | 6 | 32 | 7 | 56 | 7 | 4 | 0 | 7 | 22 | 15 |
| | 4 | 7 | 33 | 1 | 57 | 7 | 4 | 0 | 15 | 23 | 3 |
| | 4 | 8 | 33 | 10 | 59 | 0 | 4 | 0 | 24 | 23 | 12 |
| | 4 | 9 | 34 | 4 | 60 | 0 | 4 | 1 | 4 | 24 | 0 |
| | 4 | 10 | 34 | 13 | 61 | 1 | 4 | 1 | 13 | 24 | 9 |
| | 4 | 11 | 35 | 7 | 62 | 1 | 4 | 1 | 21 | 24 | 17 |
| | 5 | 0 | 36 | 2 | 63 | 2 | 4 | 2 | 2 | 25 | 6 |
| | 5 | 1 | 36 | 10 | 64 | 2 | 4 | 2 | 10 | 25 | 14 |
| | 5 | 2 | 37 | 4 | 65 | 2 | 4 | 2 | 18 | 26 | 2 |
| | 5 | 3 | 37 | 13 | 66 | 3 | 4 | 2 | 27 | 26 | 11 |
| | | | | | | | | | | | |
| 07 | 3 | 4 | 24 | 11 | 43 | 8 | 3 | 0 | 11 | 17 | 7 |
| | 3 | 5 | 25 | 6 | 44 | 4 | 8 | 0 | 20 | 17 | 16 |
| | 8 | 6 | 26 | 1 | 45 | 5 | 3 | 1 | 1 | 18 | 5 |
| | 3 | 7 | 26 | 9 | 46 | 5 | 3 | 1 | 9 | 18 | 13 |
| | 3 | 8 | 27 | 4 | 47 | 6 | 3 | 1 | 18 | 19 | 2 |
| | 8 | 9 | 27 | 13 | 48 | 7 | 3 | 1 | 27 | 19 | 11 |
| | 3 | 10 | 28 | 7 | 49 | 7 | 3 | 2 | 7 | 19 | 19 |
| | 3 | 11 | 29 | 2 | 51 | 0 | 3 | 2 | 16 | 20 | 8 |
| | 4 | 0 | 29 | 11 | 52 | 1 | 3 | 2 | 25 | 20 | 17 |
| | 4 | 1 | 30 | 5 | 53 | 1 | 3 | 8 | 5 | 21 | 5 |
| | 4 | 2 | 31 | 0 | 54 | 2 | 3 | 3 | 14 | 21 | 14 |
| | 4 | 3 | 31 | 9 | 55 | 3 | 3 | 3 | 23 | 22 | 3 |
| | 4 | 4 | 32 | 4 | 56 | 4 | 4 | 0 | 4 | 22 | 12 |
| | 4 | 5 | 32 | 12 | 67 | 4 | 4 | 0 | 12 | 23 | 0 |
| | 4 | 6 | 33 | 7 | 58 | 5 | 4 | 0 | 21 | 23 | 9 |
| | 4 | 7 | 34 | 2 | 59 | 6 | 4 | 1 | 2 | 23 | 18 |
| | 4 | 8 | 34 | 10 | 60 | 6 | 4 | 1 | 10 | 24 | 6 |
| | 4 | 9 | 35 | 0 | 61 | 7 | 4 | 1 | 19 | 24 | 10 |
| | 4 | 10 | 36 | 0 | 63 | 0 | 4 | 2 | 0 | 25 | 4 |
| | 4 | 11 | 36 | 8 | 64 | 0 | 4 | 2 | 8 | 20 | 12 |
| | 5 | 0 | 37 | 3 | 65 | 1 | 4 | 2 | 17 | 28 | 1 |
| | 5 | 1 | 37 | 12 | 66 | 2 | 4 | 2 | 26 | 26 | 10 |
| | D | 2 | 38 | 6 | 67 | 20 | 4 | 3 | 15 | 26 | 18 |
| | D | 3 | 39 | 1 | 68 | 3 | 4 | 3 | 10 | 27 | 7 |
| | 6 | 4 | 39 | 10 | 69 | 4 | 1 4 | 3 | 24 | 27 | 16 |
| | | | | | | | | | | | |

70

TABLE VI .- WEIGHT OF LIVE CATTLE BY MEASUREMENT.

| | | | - | | | | - | | | - | |
|---------|-----|------|------|-----------------|------|----------------|-------|------|------|------|------|
| Girth. | Len | gth. | Imp | perial ones. | Smit | hfield nes. | | Cwts | - | Sco | res. |
| Ft. In. | Ft. | In. | Sts. | Lbs. | Sts. | Lbs. | Cwts. | Qrs. | Lbs. | Scs. | Lbs. |
| 5 8 | 3 | 4 | 25 | 8 | 44 | 6 | 3 | 0 | 22 | 17 | 18 |
| | 3 | 5 | 26 | 3 | 45 | 7 | 8 | 1 | 3 | 18 | 7 |
| | 3 | 6 | 26 | 12 | 46 | 8 | 3 | 1 | 12 | 18 | 16 |
| | 3 | 7 | 27 | 7 | 48 | 1 | 3 | 1 | 21 | 19 | 5 |
| | 3 | 8 | 28 | 2 | 49 | 2 | 3 | 2 | 2 | 19 | 14 |
| | 3 | 9 | 28 | 10 | 50 | 2 | 3 | 2 | 10 | 20 | 2 |
| | 3 | 10 | 29 | 5 | 51 | 3 | 3 | 2 | 19 | 20 | 11 |
| | 3 | 11 | 30 | 0 | 52 | 4 | 3 | 3 | 0 | 21 | 0 |
| | 4 | 0 | 30 | 9 | 53 | 5 | 3 | 3 | . 9 | 21 | 9 |
| | 4 | 1 | 31 | 4 | 54 | 6 | 3 | 3 | 18 | 21 | 18 |
| | 4 | 2 | 31 | 18 | 55 | 7 | 3 | 3 | 27 | 22 | 7 |
| | 4 | 3 | 82 | 8 | 57 | ò | 4 | 0 | 8 | 22 | 16 |
| | 4 | 4 | 33 | 3 | 58 | 1 | 4 | 0 | 17 | 23 | 5 |
| | - 4 | 5 | 33 | 12 | 59 | 2 | 4 | 0 | 26 | 23 | 14 |
| | 4 | 6 | 34 | 7 | 60 | 8 | 4 | 1 | 7 | 24 | 3 |
| | 4 | 7 | 35 | 2 | 61 | 4 | 4 | 1 | 16 | 24 | 12 |
| | 4 | 8 | 35 | 11 | 62 | 5 | 4 | î | 25 | 25 | 1 |
| | 4 | 0 | 36 | R | 63 | ß | 1 a | 2 | 6 | 25 | 10 |
| | à | 10 | 37 | 1 | 64 | 7 | 4 | 2 | 15 | 25 | 19 |
| | 4 | 11 | 37 | 10 | RR | ò | Â | 2 | 24 | 28 | 8 |
| | 5 | 0 | 38 | 5 | 67 | 1 | 4 | 3 | 5 | 26 | 17 |
| | 5 | 1 | 30 | 0 | 68 | 2 | â | 3 | 14 | 27 | 6 |
| | 5 | 0 | 30 | o l | 60 | 3 | â | 3 | 23 | 27 | 15 |
| | 5 | 8 | 40 | 3 | 70 | 8 | 5 | 0 | 3 | 28 | 3 |
| | 5 | 4 | 40 | 12 | 71 | 4 | 5 | 0 | 12 | 28 | 12 |
| | 5 | 5 | 41 | 17 | 79 | 5 | 5 | ő | 21 | 2.0 | 1 |
| | | | | | | | - | č | | | - |
| 5 9 | 3 | 5 | 27 | 0 | 47 | 2 | 3 | 1 | 14 | 18 | 18 |
| | 8 | 6 | 27 | 9 | 48 | 3 | 3 | 1 | 23 | 19 | 7 |
| | 3 | 7 | 28 | 4 | 49 | 4 | 3 | 2 | 4 | 19 | 16 |
| | 3 | 8 | 28 | 13 | 50 | 5 | 3 | 2 | 13 | 20 | 5 |
| | 3 | 9 | 29 | 8 | 51 | 6 | 3 | 2 | 22 | 20 | 14 |
| | 3 | 10 | 30 | 4 | 53 | 0 | 3 | 3 | 4 | 21 | 4 |
| | 3 | 11 | 30 | 13 | 54 | 1 | 3 | 3 | 13 | 21 | 13 |
| | 4 | 0 | 31 | 8 | 55 | 2 | 3 | 3 | 22 | 22 | 2 |
| | 4 | 1 | 32 | 3 | 56 | 3 | 4 | 0 | 3 | 22 | 11 |
| | 4 | 2 | 32 | 12 | 57 | 4 | 4 | 0 | 12 | 23 | 0 |
| | - 4 | 3 | 33 | 8 | 58 | 6 | 4 | 0 | 22 | 23 | 10 |
| | 4 | 4 | 34 | 3 | 59 | 7 | 4 | 1 | 3 | 23 | 19 |
| | 4 | 5 | 34 | 12 | 61 | 0 | 4 | 1 | 12 | 24 | 8 |
| | 4 | 6 | 35 | 7 | 62 | 1 | 4 | 1 | 21 | 24 | 17 |
| | 4 | 7 | 36 | 2 | 63 | 2 | 4 | 2 | 2 | 25 | 6 |
| | 4 | 8 | 36 | 12 | 64 | 4 | 4 | 2 | 12 | 25 | 16 |
| | 4 | 9 | 37 | 7 | 65 | 5 | 4. | 2 | 21 | 26 | 5 |
| | 4 | 10 | 38 | 2 | 66 | 6 | 4 | 8 | 2 | 26 | 14 |
| | 4 | 11 | 38 | 11 | 67 | 7 | 4 | 3 | 11 | 27 | 8 |
| | | - * | | | | | - | - | | | - |

| | | TABL | e vi | -WED | SHT OF | LIVE | CATTL | E BY I | MEAS | UREM | ENT. | 71 |
|-----|-----|------|------|------|-----------------|---------------|----------------|--------|------|------|------|------|
| Gin | th. | Len | gth. | Im | perial ones. | Smith Stor | hfield nes. | | Cwta | l. | Sco: | rea. |
| Ft. | In. | Ft. | In. | Sts. | Lbs. | Sts. | Lbs. | Cwts. | Qrs | Lbs. | Scs. | Lbs. |
| 5 | 9 | 5 | 0 | 39 | 7 | 69 | 1 | 4 | 3 | 21 | 27 | 13 |
| 1 | | 5 | 1 | 40 | 2 | 70 | 2 | δ | 0 | 2 | 28 | 2 |
| | | 5 | 2 | 40 | 11 | 71 | 3 | 5 | 0 | 11 | 28 | 11 |
| | | δ | 3 | 41 | 6 | 72 | 4 | 5 | 0 | 20 | 29 | 0 |
| - | | δ | 4 | 42 | 1 | 73 | 5 | 5 | 1 | 1 | 29 | 9 |
| | | 5 | 5 | 42 | 11 | 74 | 7 | D | 1 | 11 | 29 | 19 |
| | | 0 | 0 | 43 | 6 | 76 | 0 | 0 | 1 | 20 | 30 | 8 |
| 5 | 10 | 8 | 6 | 28 | 6 . | 49 | 6 | 3 | 2 | 6 | 19 | 18 |
| | | 8 | 7 | 29 | 2 | 51 | 0 | 3 | 2 | 16 | 20 | 8 |
| | | 8 | 8 | 29 | 11 | 52 | 1 | 3 | 2 | 20 | 20 | 17 |
| | | 3 | 10 | 30 | 6 | 58 | 2 | 3 | 3 | 10 | 21 | 6 |
| | | 0 | 11 | 01 | 11 | 5% | 4 | 0 | 0 | 10 | 21 | 10 |
| | | 0 | 11 | 30 | 11 | 50 | 7 | O A | 0 | 20 | 22 | 15 |
| | | 4 | 1 | 33 | 2 | 58 | 0 | | 0 | 16 | 23 | 10 |
| | | Ā | 2 | 88 | 12 | 59 | 2 | 4 | 0 | 26 | 23 | 14 |
| 1 | | 4 | 3 | 34 | 7 | 60 | ã | 4 | ĭ | 7 | 24 | 3 |
| | | 4 | 4 | 35 | 3 | 61 | 5 | 4 | î | 17 | 24 | 13 |
| | | 4 | 5 | 35 | 12 | 62 | 6 | 4 | î | 26 | 25 | 2 |
| | | 4 | 6 | 36 | 8 | 64 | õ | 4 | 2 | 8 | 25 | 12 |
| | | 4 | 7 | 37 | 3 | 65 | ĩ | 4 | 2 | 17 | 26 | 1 |
| | | 4 | 8 | 37 | 13 | 66 | 3 | 4 | 2 | 27 | 26 | 11 |
| | | 4 | 9 | 38 | 8 | 67 | 4 | 4 | 3 | 8 | 27 | 0 |
| | | 4 | 10 | 39 | 4 | 68 | 6 | 4 | 3 | 18 | 27 | 10 |
| | | 4 | 11 | 39 | 13 | 69 | 7 | 4 | 3 | 27 | 27 | 19 |
| | | 5 | 0 | 40 | 9 | 71 | 1 | 5 | 0 | 9 | 28 | 9 |
| | | 5 | 1 | 41 | 4 | 72 | 2 | 5 | 0 | 18 | 28 | 18 |
| | | 5 | 2 | 42 | 0 | 73 | 4 | 5 | 1 | 0 | 29 | 8 |
| | | 5 | 3 | 42 | 9 | 74 | 5 | 5 | 1 | 9 | 29 | 17 |
| | | б | 4 | 43 | 5 | 75 | 7 | 5 | 1 | 19 | 30 | 7 |
| | | 5 | Б | 44 | 0 | 77 | 0 | 5 | 2 | 0 | 30 | 16 |
| | | 5 | 6 | 44 | 10 | 78 | 2 | 5 | 2 | 10 | 31 | 6 |
| | | D | 7 | 40 | D | 79 | 3 | 0 | 2 | 19 | 31 | 15 |
| 5 | 11 | 3 | 7 | 29 | 13 | 52 | 3 | 3 | 2 | 27 | 20 | 19 |
| 1 | | 3 | 8 | 30 | 9 | 53 | 5 | 8 | 3 | 9 | 21 | 9 |
| | | 3 | 9 | 31 | 5 | 54 | 7 | 3 | 3 | 19 | 21 | 19 |
| | | 3 | 10 | 32 | 1 | 56 | 1 | 4 | 0 | 1 | 22 | 9 |
| | | 3 | 11 | 32 | 10 | 57 | 2 | 4 | 0 | 10 | 22 | 18 |
| | | 4 | 0 | 33 | 6 | 58 | 4 | 4 | 0 | 20 | 23 | 8 |
| | | 4 | 1 | 34 | 2 | 59 | 6 | 4 | 1 | 2 | 23 | 18 |
| | | 4 | 2 | 34 | 12 | 61 | 0 | 4 | 1 | 12 | 24 | 8 |
| | | 4 | 3 | 35 | 7 | 62 | 1 | 4 | 1 | 21 | 24 | 17 |
| | | 4 | 4 | 36 | 3 | 63 | 3 | 4 | 2 | 3 | 25 | 7 |
| | | 4 | Б | 36 | 13 | 64 | 5 | 4 | 2 | 13 | 25 | 17 |

| 72 | TABLE | VI.— | WEIGH: | r of I | TAR CI | TTLE | BY M | UBAS | REME | NT. | |
|---------|-------|------|--------|-------------|--------|----------------|-------|------|------|------|------|
| Girth. | Len | gth, | Impe | rial es. | Smith | nfield nes. | 1 | Cwta | | Scor | es. |
| Ft. In. | Ft. | In. | Sts. | Lbs. | Sts. | Lbs. | Cwts. | Qrs. | Lbs. | Scs. | Lbs. |
| 5 11 | 4 | 6 | 37 | 9 | 65 | 7 | 4 | 2 | 23 | 26 | 7 |
| | 4 | 7 | 38 | 4 | 67 | 0 | 4 | 3 | 4 | 26 | 16 |
| | 4 | 8 | 39 | 0 | 68 | 2 | 4 | 3 | 14 | 27 | 6 |
| | 4 | 8 | 39 | 10 | 69 | 4 | 1 4 | a | 24 | 27 | 16 |
| ł | 4 | 11 | 40 | 0 | 70 | 0 77 | 0 | 0 | 15 | 28 | 16 |
| | 1 15 | 11 | 41 | 11 | 70 | 1 | 0 5 | 0 | 10 | 28 | 10 |
| | 5 | 1 | 49 | 11 | 74 | 0 | 5 | 1 | 40 | 20 | 15 |
| | 1 5 | 2 | 49 | 0 | 75 | 5 | 5 | ÷. | 17 | 20 | 5 |
| | 5 | ŝ | 43 | 12 | 76 | 6 | 5 | î | 26 | 30 | 14 |
| - | 5 | 4 | 44 | 8 | 78 | 0 | 5 | 2 | 8 | 31 | 4 |
| | 5 | 5 | 45 | 4 | 79 | 2 | 5 | 2 | 18 | 31 | 14 |
| | 5 | 6 | 46 | 0 | 80 | 4 | 5 | 3 | 0 | 32 | 4 |
| | 5 | 7 | 46 | 9 | 81 | 5 | 5 | 3 | 9 | 32 | 13 |
| | 5 | 8 | 47 | 5 | . 82 | 7 | 5 | 3 | 19 | 33 | 8 |
| 6 0 | 3 | 8 | 31 | 7 | 55 | 1 | 8 | 8 | 21 | 22 | 1 |
| | 3 | . 9 | 32 | 3 | 56 | 3 | 4 | 0 | 3 | 22 | 11 |
| | 3 | 10 | 32 | 13 | 57 | 5 | 4 | 0 | 13 | 23 | 1 |
| | 8 | 11 | 33 | 9 | 58 | 7 | 4 | 0 | 23 | 23 | 11 |
| | 4 | 0 | 34 | 5 | 60 | 1 | 4 | 1 | 5 | 24 | 1 |
| | 4 | 1 | 35 | 1 | 61 | 3 | 4 | 1 | 15 | 24 | 11 |
| | 4 | 2 | 35 | 11 | 62 | 0 | 4 | 1 | 20 | 20 | |
| | 4 | 3 | 36 | 7 | 03 | 7 | 4 | 2 | 17 | 25 | 11 |
| | 1 1 | * | 07 | 10 | 00 | 1 | 1 4 | 0 | 07 | 20 | 11 |
| | 1 4 | 0 | 07 | 10 | 00 | 0 | 1 | 0 | 41 | 20 | 11 |
| | 4 | 0 | 20 | 5 | 01 | 5 | 1 4 | 0 | 10 | 07 | 11 |
| | 4 | å | 40 | 2 | 70 | 2 | 5 | 0 | 2 | 28 | 9 |
| | A | 0 | 40 | 12 | 71 | A | 5 | ő | 12 | 28 | 12 |
| | 4 | 10 | 41 | 8 | 72 | 6 | 5 | ő | 22 | 29 | 2 |
| | 4 | 11 | 42 | 4 | 74 | 0 | 5 | 1 | 4 | 29 | 12 |
| | 5 | 0 | 43 | 0 | 75 | 2 | 5 | 1 | 14 | 80 | 2 |
| | 5 | 1 | 43 | 10 | 76 | 4 | 5 | 1 | 24 | 30 | 12 |
| | 6 | 2 | 44 | 6 | 77 | 6 | 5 | 2 | 6 | 31 | 2 |
| | 5 | 3 | 45 | 2 | 79 | 0 | 5 | 2 | 16 | 31 | 12 |
| | 5 | 4 | 45 | 12 | 80 | 2 | 5 | 2 | 26 | 32 | 2 |
| | 5 | 5 | 46 | 8 | 81 | 4 | 15 | 3 | 8 | 32 | 12 |
| | 5 | 6 | 47 | 4 | 82 | 6 | 5 | 3 | 18 | 33 | 2 |
| | 5 | 7 | 48 | 0 | 84 | 0 | 6 | 0 | 0 | 33 | 12 |
| | 5 | 8 | 48 | 10 | 85 | 2 | 6 | 0 | 10 | 34 | 2 |
| | 6 | 9 | 49 | 6 | 86 | 4 | 6 | 0 | 20 | 34 | 12 |
| 6 1 | 3 | 9 | 33 | 2 | 58 | 0 | 4 | 0 | 16 | 23 | ŧ |
| | 3 | 10 | 33 | 12 | 59 | 2 | 4 | 0 | 26 | 23 | 11 |
| | 3 | 11 | 34 | 8 | 60 | 4 | 4 | 1 | 8 | 24 | 4 |
| | | | | | | | | | | | |

| | TABLE VI | -weight of | LIVE CATTLE | S BY MEASUREM | ent. 73 |
|---------|----------|---------------------|-----------------------|------------------|-----------|
| Girth. | Length. | Imperial Stones. | Smithfield Stones. | Cwts. | Scores. |
| Ft. In. | Ft. In. | Sts. Lbs. | Sts. Lbs. | Cwts. Qrs. Lbs. | Scs. Lbs. |
| 6 1 | 4 0 | 35 5 | 61 7 | 4 1 19 | 24 15 |
| | 4 1 | 36 1 | 63 1 | 4 2 1 | 25 5 |
| | 4 2 | 36 11 | 64 3 | 4 2 11 | 25 15 |
| | 4 3 | 37 8 | 65 6 | 4 2 22 | 26 6 |
| | 4 4 | 38 4 | 67 0 | 4 3 4 | 26 16 |
| | 4 5 | 39 0 | 68 2 | 4 3 14 | 27 6 |
| 1 | 4 6 | 39 11 | 69 5 | 4 3 25 | 27 17 |
| | 4 7 | 40 7 | 70 7 | 0 0 7 | 28 7 |
| | 4 8 | 49 0 | 72 1 | 5 0 17 | 28 17 |
| 4 | 4 10 | 49 10 | 10 % | 0 1 0 | 29 8 |
| | 4 11 | 49 0 | 78 0 | 6 1 10 # 1 00 | 29 18 |
| | 5 0 | 44 9 | 70 0 | 5 0 0 | 20 10 |
| | 5 1 | 44 13 | 78 5 | 5 9 19 | 91 0 |
| | 5 2 | 45 9 | 79 7 | 5 2 93 | 91 10 |
| | 5 3 | 46 5 | 81 1 | 5 3 5 | 92 0 |
| - | 5 4 | 47 2 | 82 4 | 5 3 16 | 33 0 |
| | 5 5 | 47 12 | 83 6 | 5 3 26 | 33 10 |
| | 5 6 | 48 8 | 85 0 | 6 0 8 | 34 0 |
| | 5 7 | 49 5 | 86 3 | 6 0 19 | 84 11 |
| | 5 8 | 50 1 | 87 5 | 6 1 1 | 85 1 |
| | 5 9 | 50 11 | 88 7 | 6 1 11 | 35 11 |
| | 5 10 | 51 8 | 90 2 | 6 1 22 | 36 2 |
| 6 2 | 8 10 | 34 11 | 60 7 | 4 1 11 | 24 7 |
| | 8 11 | 35 8 | 62 2 | 4 1 22 | 24 18 |
| | 4 0 | 36 4 | 63 4 | 4 2 4 | 25 8 |
| | 4 1 | 37 1 | 64 7 | 4 2 15 | 25 19 |
| | 4 2 | 37 12 | 66 2 | 4 2 26 | 26 10 |
| | 4 3 | 38 8 | 67 4 | 4 3 8 | 27 0 |
| | 4 4 | 39 5 | 68 7 | 4 3 19 | 27 11 |
| | A Q | 40 10 | 10 1 | 0 0 1 | 28 1 |
| | 1 1 17 | 41 0 | HQ H | 0 0 12 | 28 12 |
| | 4 8 | 49 5 | 74 1 | 5 1 5 | 29 3 |
| | 4 9 | 43 2 | 75 4 | 5 1 18 | 20 18 |
| | 4 10 | 43 12 | 78 8 | 5 1 96 | 90 14 |
| | 4 11 | 44 9 | 78 1 | 5 9 0 | 91 6 |
| | 5 0 | 45 6 | 79 4 | 5 2 20 | 31 16 |
| | 5 1 | 46 2 | 80 6 | 5 3 2 | 32 6 |
| | 5 2 | 46 13 | 82 1 | 5 8 13 | 82 17 |
| | 5 3 | 47 9 | 83 3 | 5 3 23 | 33 7 |
| | 5 4 | 48 6 | 84 6 | 6 0 6 | 33 18 |
| | 5 5 | 49 2 | 86 0 | 6 0 16 | 34 8 |
| | 5 6 | 49 13 | 87 3 | 6 0 27 | 34 19 |
| | 5 7 | 50 10 | 88 6 | 6 1 10 | 35 10 |
| | | | | | |

| 74 | | TABLE | vi | -WEIGH | T. OF | LIVE C. | ATTLE | BT M | EASU | TREME | INT. | |
|---------|----|-------|------|--------|--------------|---------------|----------------|-------|------|-------|------|------|
| Girt | h. | Len | gth. | Impo | rial ics. | Smith Stor | ifield ics. | | Cwts | | Scor | res. |
| Ft. | | Ft. | In. | Sts. | Lbs. | Sts. | Lbs. | Cwts. | Qrs. | Lbs. | Scs. | Lbs. |
| 6 | 2 | 5 | 8 | 51 | 6 | 90 | 0 | 6 | 1 | 20 | 36 | 0 |
| | | 5 | 9 | 52 | 3 | 91 | 3 | 6 | 2 | 3 | 36 | 11 |
| | | 5 | 10 | 52 | 13 | 92 | 5 | 6 | 2 | 13 | 37 | 1 |
| | 3 | 5 | 11 | 53 | 10 | 94 | 0 | 6 | 2 | 24 | 37 | 12 |
| 6 | 3 | 3 | 11 | 36 | 7 | 63 | 7 | 4 | 2 | 7 | 25 | 11 |
| | | 4 | 0 | 37 | 4 | 65 | 2 | 4 | 2 | 18 | 26 | 2 |
| | | 4 | 1 | 38 | 1 | 66 | 5 | 4 | 3 | 1 | 26 | 13 |
| | | 4 | 2 | 38 | 12 | 68 | 0 | 4 | 3 | 12 | 27 | 4 |
| 1.2 | | 4 | 3 | 39 | 9 | 69 | 3 | 4 | 3 | 23 | 27 | 15 |
| 1.1.1 | | 4 | 4 | 40 | 6 | 70 | 6 | 5 | 0 | 6 | 28 | 6 |
| | | 4 | 5 | 41 | 8 | 72 | 1 | 5 | 0 | 17 | 28 | 17 |
| 2 11 | | 4 | 6 | 42 | 0 | 73 | 4 | 5 | 1 | 0 | 29 | 8 |
| 12.16 | | 4 | 7 | 42 | 10 | 74 | 6 | 5 | 1 | 10 | 29 | 18 |
| 1000 | - | 4 | 8 | 43 | 7 | 76 | 1 | 5 | 1 | 21 | 30 | 9 |
| | | 4 | 9 | 44 | 4 | 77 | 4 | 5 | 2 | 4 | 31 | 0 |
| 1. 1. 1 | | 4 | 10 | 45 | 1 | 78 | 7 | 5 | 2 | 15 | 31 | 11 |
| | | 4 | 11 | 45 | 12 | 80 | 2 | 5 | 2 | 26 | 32 | 2 |
| 1.1.1 | | 5 | 0 | 46 | 9 | 81 | 5 | 5 | 3 | 9 | 32 | 13 |
| | | 5 | 1 | 47 | 6 | 83 | 0 | 5 | 3 | 20 | 33 | 4 |
| | | 5 | 2 | 48 | 3 | 84 | 3 | 6 | 0 | 3 | 33 | 15 |
| 1 60. | | 5 | 3 | 48 | 13 | 85 | 5 | 6 | 0 | 13 | 34 | 5 |
| 1. 1. | | 5 | 4 | 49 | 10 | 87 | 0 | 6 | 0 | 24 | 34 | 16 |
| 1.1 | | 5 | 5 | 50 | 7 | 88 | 3 | 6 | 1 | 7 | 35 | 7 |
| 1.1 | | 5 | 6 | 51 | 4 | 89 | 6 | 6 | 1 | 18 | 35 | 18 |
| 1000 | | 5 | 7 | 52 | 1 | 91 | 1 | 6 | 2 | 1 | 36 | 9 |
| 1.3 | | 5 | 8 | 52 | 12 | 92 | 4 | 6 | 2 | 12 | 37 | 0 |
| | | 5 | 9 | 53 | 9 | 93 | 7 | 6 | 2 | 23 | 37 | 11 |
| | | 5 | 10 | 54 | 6 | 95 | 2 | 6 | 3 | 6 | 38 | 2 |
| | | 5 | 11 | 55 | 2 | 96 | 4 | 6 | 3 | 16 | 38 | 12 |
| 1. 24 | | 6 | 0 | -55 | 13 | 97 | 7 | 6 | 3 | 27 | 39 | 3 |
| 6 | 4 | 4 | 0 | 38 | 4 | 67 | 0 | 4 | 3 | 4 | 26 | 16 |
| | - | 4 | 1 | 39 | î | 68 | 3 | 4 | 3 | 15 | 27 | 7 |
| 1.2. | | 4 | 2 | 39 | 13 | 69 | 7 | 4 | 3 | 27 | 27 | 19 |
| 1.5 | | 4 | 3 | 40 | 10 | 71 | 2 | 5 | 0 | 10 | 28 | 10 |
| 1.1. | | 4 | 4 | 41 | 7 | 72 | 5 | 5 | 0 | 21 | 29 | 1 |
| 1.1.1 | | 4 | 5 | 42 | 4 | 74 | 0 | 5 | 1 | 4 | 29 | 12 |
| | | 4 | 6 | 43 | 1 | 75 | 3 | 5 | î | 15 | 30 | 3 |
| 1 2 | | 4 | 7 | 43 | 12 | 76 | 6 | 5 | 1 | 26 | 30 | 14 |
| 1.1 | | 4 | 8 | 44 | 10 | 78 | 2 | 5 | 2 | 10 | 31 | 6 |
| | | 4 | 9 | 45 | 7 | 79 | 5 | 5 | 2 | 21 | 31 | 17 |
| 1.1 | | 4 | 10 | 46 | 4 | 81 | 0 | 5 | 3 | 4 | 32 | 8 |
| | | 4 | 11 | 47 | 1 | 82 | 3 | 5 | 3 | 15 | 32 | 19 |
| | | 5 | 0 | 47 | 12 | 83 | 6 | 5 | 3 | 26 | 33 | 10 |
| - | | 5 | 1 | 48 | 10 | 85 | 2 | 6 | 0 | 10 | 84 | 2 |
| 1. 8 | | | | 10 | | | - | 1 | - | -0 | | - |

| Girth. | Le | ngth. | Impo | rial Ics. | Smith | field ies. | | Cwte | I. | Scor | res. |
|--------|-----|-------|------|--------------|-------|----------------|-------|-------|------|------|------|
| Ft. In | Ft | In. | Sts. | Lbs. | Sts. | Lbs. | Cwts. | Q.rs. | Lha. | Scs. | The |
| 6 4 | 5 | 2 | 49 | 7 | 86 | 5 | 6 | 0 | 21 | 34 | 13 |
| | 5 | 3 | 50 | 4 | 88 | 0 | 6 | 1 | 4 | 35 | - 4 |
| | 5 | 4 | 51 | 1 | 89 | 3 | 6 | 1 | 15 | 35 | 15 |
| | 5 | 5 | 51 | 12 | 90 | 6 | 6 | 1 | 26 | 86 | 6 |
| | 5 | 6 | 52 | 9 | 92 | 1 | 6 | 2 | 9 | 36 | 12 |
| | 5 | 7 | 53 | 7 | . 93 | 5 | 6 | 2 | 21 | 37 | 2 |
| | 5 | 8 | 54 | 4 | 95 | 0 | 6 | 3 | 4 | 38 | (|
| | 5 | 9 | 55 | 1 | 96 | 3 | 6 | 3 | 15 | 38 | 11 |
| | 5 | 10 | 55 | 12 | 97 | 6 | 6 | .8 | 26 | 39 | 2 |
| | 5 | 11 | 56 | 9 | 99 | 1 | 7 | 0 | 9 | 39 | 13 |
| | 6 | 0 | 57 | 6 | 100 | 4 | 7 | 0 | 20 | 40 | 4 |
| | 6 | 1 | 58 | 4 | 102 | 0 ^s | 7 | 1 | 4 | 40 | 16 |
| | 1 | | | | | | | | - | | |
| 6 5 | 4 | 1 | 40 | 2 | 70 | 2 | 5 | 0 | 2 | 28 | 2 |
| | 4 | 2 | 40 | 13 | 71 | 5 | 5 | 0 | 1.8 | 28 | 1.3 |
| | 4 | 3 | 41 | 11 | 73 | 1 | 5 | 0 | 25 | 29 | 1 |
| | 4 | 4 | 42 | 8 | 74 | 4 | 5 | 1 | 8 | 29 | 16 |
| | 4 | 5 | 43 | 6 | 76 | 0 | 5 | ĩ | 20 | 30 | |
| | 4 | 6 | 44 | 3 | 77 | 3 | 5 | 2 | 8 | 30 | 19 |
| | 4 | 7 | 45 | 1 | 78 | 7 | 5 | 2 | 15 | 31 | 11 |
| | 4 | 8 | 45 | 12 | 80 | 2 | 5 | 2 | 26 | 32 | - 9 |
| | 4 | 9 | 46 | 10 | 81 | 6 | 5 | 3 | 10 | 32 | 14 |
| | 4 | 10 | 47 | 7 | 83 | 1 | 5 | 3 | 21 | 33 | 5 |
| | 1 4 | 11 | 48 | 5 | 84 | 5 | 6 | 0 | 5 | 33 | 12 |
| | 1 5 | 0 | 49 | 2 | 86 | 0 | 6 | 0 | 16 | 84 | 8 |
| | 5 | 1 | 50 | 0 | 87 | 4 | 6 | I | 0 | 35 | 6 |
| | 5 | 2 | 50 | 11 | 88 | 7 | 6 | 1 | 11 | 35 | 11 |
| | 5 | 3 | 51 | 8 | 90 | 2 | 6 | 1 | 22 | 36 | - 5 |
| | 5 | 4 | 52 | 6 | 91 | 6 | 6 | 2 | 6 | 36 | 14 |
| | 5 | Б | 53 | 3 | 93 | 1 | 6 | 2 | 17 | 87 | 1 |
| | 5 | 6 | 54 | 1 | 94 | 5 | 6 | 3 | 1 | 37 | 12 |
| | 5 | 7 | 54 | 12 | 96 | 0 | 6 | 3 | 12 | 38 | 8 |
| | õ | 8 | 55 | 10 | 97 | 4 | . 6 | 3 | 24 | 39 | (|
| | 5 | 9 | 56 | 7 | 98 | 7 | 7 | 0 | 7 | 39 | 11 |
| | 5 | 10 | 57 | 5 | 100 | 3 | 17 | 0 | 19 | 40 | 2 |
| | 5 | 11 | 58 | 2 | 101 | 6 | 7 | 1 | 2 | 40 | 14 |
| | 6 | 0 | 59 | 0 | 103 | 2 | 7 | 1 | 14 | 41 | (|
| | 6 | 1 | 59 | 11 | 104 | Б | 7 | 1 | 25 | 41 | 17 |
| | 6 | 2 | 60 | 9 | 106 | 1 | 7 | 2 | 9 | 42 | 9 |
| 6 6 | 4 | 2 | 42 | 0 | 73 | 4 | 5 | 1 | 0 | 29 | ٤ |
| | 4 | 3 | 42 | 12 | 75 | 0 | 5 | 1 | 12 | 30 | (|
| | 4 | 4 | 43 | 10 | 76 | 4 | 5 | 1 | 24 | 80 | 12 |
| | 4 | 5 | 44 | 8 | 78 | 0 | 5 | 2 | 8 | 31 | 4 |
| | 4 | 6 | 45 | Б | 79 | 3 | 5 | 2 | 19 | 31 | 14 |
| | 4 | 7 | 4.6 | 8 | 1 90 | M | 5 | 9 | 2 | 20 | 2 |

| 76 | TABLE | V1 | WEIGH | I OF 1 | LIVE CA | TTLE | BY M | EASU | REME | NT. | |
|---------|-------|------|--------------|-------------|---------------|---------------|-------|------|------|------|------|
| Girth. | Len | gth. | Impe Ston | rial cs. | Smith Stor | field tes. | | Cwts | | Scor | es. |
| Ft. In. | Ft. | In. | Sts. | Lbs. | Sts. | Lbs. | Cwts. | Qrs. | Lbs. | Scs. | Lbs, |
| 6 6 | 4 | 8 | 47 | 1 | 82 | 3 | 5 | 3 | 15 | 32 | 19 |
| | 4 | 9 | 47 | 13 | 83 | 7 | 5 | 3 | 27 | 33 | 11 |
| | 4 | 10 | 48 | 11 | 85 | 3 | 6 | 0 | 11 | 34 | 3 |
| | 4 | 11 | 49 | 8 | 86 | 6 | 6 | 0 | 22 | 34 | 14 |
| | 5 | 0 | 50 | 6 | 88 | 2 | 6 | L | 6 | 35 | 6 |
| | 5 | 1 | 51 | 4 | 89 | 6 | 6 | 1 | 18 | 35 | 18 |
| | 5 | 2 | 52 | 2 | 91 | 2 | 6 | 2 | 2 | 36 | 10 |
| | D | 3 | 52 | 13 | 92 | D | 6 | 2 | 13 | 37 | 1 |
| | D | 4 | 53 | 11 | 94 | 1 | 6 | 2 | 20 | 37 | 13 |
| | 0 1 | 0 | 09 | 8 | 07 | 1 | 0 | 0 | 01 | 00 | 17 |
| | 5 | 77 | 50 | - 1 | 00 | 1 | 0 | 0 | 41 | 20 | 17 |
| | L B | 6 | 57 | 2 | 100 | 4 | 1 17 | 0 | 10 | 40 | 0 |
| | 5 | 9 | 58 | 0 | 101 | 4 | 1 7 | 1 | 0 | 40 | 19 |
| | 5 | 10 | 58 | 12 | 103 | õ | 7 | î | 12 | 41 | 4 |
| | 5 | 11 | 59 | 10 | 104 | 4 | 1 7 | î | 24 | 41 | 16 |
| | 6 | 0 | 60 | 7 | 105 | 7 | 7 | 2 | 7 | 42 | 7 |
| | 1 6 | ĭ | 61 | 5 | 107 | s | 1 7 | 2 | 19 | 42 | 19 |
| | 6 | 2 | 62 | 3 | 108 | 7 | 17 | 3 | 3 | 4.8 | 11 |
| | 6 | 8 | 63 | 1 | 110 | 3 | 7 | 3 | 15 | 44 | 8 |
| | | | | | | | 1 | | | | |
| 6 7 | 4 | 3 | 44 | 0 | 77 | 0 | 5 | 2 | 0 | 30 | 16 |
| | 4 | 4 | 44 | 12 | 78 | 4 | 5 | 2 | 12 | 31 | 8 |
| | 4 | 5 | 45 | 10 | 80 | 0 | 5 | 2 | 24 | 32 | 0 |
| | 4 | 6 | 46 | 8 | 81 | 4 | 5 | 3 | 8 | 32 | 12 |
| | 4 | 7 | 47 | 6 | 83 | 0 | 5 | 3 | 20 | - 33 | 4 |
| | 4 | 8 | 48 | 4 | 84 | 4 | 6 | 0 | 4 | 33 | 16 |
| | 4 | 9 | 49 | 2 | 86 | 0 | 6 | 0 | 16 | 34 | 8 |
| | 4 | 10 | 50 | 0 | 87 | 4 | 6 | 1 | 0 | 35 | 0 |
| 1 | 4 | 11 | 50 | 12 | 89 | 0 | 6 | 1 | 12 | 35 | 12 |
| | 5 | 0 | 51 | 10 | 90 | 4 | 6 | 1 | 24 | 36 | 4 |
| | 5 | 1 | 52 | 8 | 92 | 0 | 6 | 20 | 8 | 36 | 16 |
| | D | 2 | 53 | 6 | 93 | 4 | 0 | 20 | 20 | 37 | 1 |
| | 0 5 | 0 | 04 | 0 | 08 | - | R | 0 | 17 | 20 | 19 |
| | 5 | 4 | 50 | 1 | 08 | 1 | 1 7 | 0 | 1 | 80 | 5 |
| | 5 | B | 56 | 13 | 00 | 5 | 1 7 | 0 | 18 | 39 | 17 |
| | 5 | 7 | 57 | 11 | 101 | 1 | 1 7 | 0 | 25 | 40 | 9 |
| | 5 | 8 | 58 | 9 | 102 | 5 | 17 | 1 | 8 | 41 | 1 |
| | 5 | 8 | 59 | 7 | 104 | 1 | 17 | î | 21 | 41 | 13 |
| | 5 | 10 | 60 | 5 | 105 | 5 | 1 7 | 2 | 5 | 42 | 5 |
| | 5 | 11 | 61 | 3 | 107 | 1 | 17 | 2 | 17 | 42 | 17 |
| | 6 | 0 | 62 | 1 | 108 | 5 | 7 | 8 | 1 | 43 | 9 |
| | 6 | 1 | 62 | 13 | 110 | 1 | 7 | 3 | 13 | 44 | 1 |
| | 6 | 2 | 63 | 11 | 111 | 5 | 7 | 3 | 25 | 44 | 18 |
| | G | 3 | 64 | 9 | 113 | 1 | 8 | 0 | 9 | 45 | 5 |
| | | | | | | | | | | | |

| | TABL | e vi | -WEIGE | IT OF | LIVE C | ATTLE | BY | (EAS | UREM | ent. | 77 |
|---------|------|--------|-------------|---------------|---------------|----------------|-------|------|------------|------|------|
| Girth. | Len | gth. | Imp Stor | erial tes. | Smith Stor | ifield ies. | | Cwts | ι. | Scor | res. |
| Ft. In. | Ft. | In. | Sts. | Lbs. | Sts. | Lbs. | Cwts. | Qrs. | Lbs. | Scs. | Lbs, |
| 6 7 | 6 | 4 | 65 | 7 | 114 | 5 | 8 | 0 | 21 | 45 | 17 |
| 6 8 | 4 | 8 | 45 | 1 | 78 | 7 | 5 | 2 | 15 | | 11 |
| 0.0 | 4 | 4 | 46 | ō | 80 | 4 | 5 | 3 | 0 | 32 | 4 |
| | 4 | 5 | 46 | 12 | 82 | 0 | 5 | 3 | 12 | 32 | 16 |
| | 4 | 6 | 47 | 10 | 83 | 4 | 5 | 3 | 24 | - 33 | 8 |
| | 4 | 7 | 48 | 9 | 85 | 1 | 6 | 0 | 9 | 34 | 1 |
| | 4 | 0 | ,40 K0 | ß | 80 | 0 | 6 | 0 | 21 | 34 | 13 |
| | 4 | 10 | 51 | 4 | 89 | ß | ß | î | 18 | 35 | 19 |
| | . 4 | 11 | 52 | 2 | 91 | 2 | 6 | 2 | 2 | 36 | 10 |
| | 5 | 0 | 53 | 1 | 92 | 7 | 6 | 2 | 15 | 37 | 3 |
| | 5 | 1 | 53 | 13 | 94 | 3 | 6 | 2 | 27 | 37 | 15 |
| | 5 | 2 | 54 | 12 | 96 | 0 | 6 | 3 | 12 | 38 | 8 |
| | D | 3 | 00 | 10 | 97 | 4 | 6 | 3 | 24 | 39 | 0 |
| | 5 | 2 K | 57 | 7 | 100 | 5 | 1 4 | 0 | 01 | 30 | 12 |
| | 5 | 6 | 58 | 5 | 102 | 1 | 7 | 1 | 5 | 40 | 17 |
| | 5 | 7 | 59 | 3 | 103 | 5 | 7 | î | 17 | 41 | 0 |
| | 5 | 8 | 60 | 2 | 105 | 2 | 7 | 2 | 2 | 42 | 2 |
| | 5 | 9 | 61 | 0 | 106 | 6 | 7 | 2 | 14 | 42 | 14 |
| | 5 | 10 | 61 | 13 | 108 | 3 | 7 | 2 | 27 | 43 | 7 |
| | D | 11 | 62 | 11 | 109 | 7 | 17 | 3 | 11 | 43 | 19 |
| | 6 | 1 | 63 64 | 8 | 111 | 3 | 1 7 | 0 | 23 | 44 | 11 |
| | 6 | 2 | 65 | 6 | 114 | 4 | 8 | 0 | 20 | 45 | 16 |
| | 6 | 3 | 66 | 4 | 116 | ō | 8 | ĩ | 4 | 46 | 8 |
| | 6 | 4 | 67 | 3 | 117 | 5 | 8 | 1 | $\cdot 17$ | 47 | 1 |
| 6 0 | 4 | | . 477 | 9 | 0.0 | 4 | | 0 | 10 | 0.0 | 0 |
| 0 0 | 4 | 5 | 48 | ĩ | 84 | 1 | ß | 0 | 10 | 33 | 19 |
| | 4 | 6 | 48 | 13 | 85 | 5 | 6 | ŏ | 13 | 34 | 5 |
| | 4 | 7 | 49 | 12 | 87 | 2 | 6 | 0 | 26 | 34 | 18 |
| | 4 | 8 | 50 | 11 | 88 | 7 | 6 | 1 | 11 | 35 | 11 |
| | 4 | 9 | 51 | 9 | 90 | 3 | 6 | 1 | 23 | 36 | 3 |
| | 4 | 10 | 52 | 8 | 92 | 0 | 6 | 2 | 8 | 36 | 16 |
| | 5 | - 11 | 54 | 5 | 80 | 1 | 0 | 2 | 21 | 37 | 9 |
| | 5 | ĭ | 55 | 4 | 96 | ŝ | 6 | 3 | 18 | 38 | 14 |
| | 5 | 2 | 56 | 3 | 98 | 3 | 7 | 0 | 3 | 39 | 7 |
| | 5 | 3 | 57 | 2 | 100 | 0 | 7 | 0 | 16 | 40 | 0 |
| | 5 | 4 | 58 | 0 | 101 | 4 | 7 | 1 | 0 | 40 | 12 |
| | 5 | 5 | 58 | 13 | 103 | 1 | 7 | 1 | 13 | 41 | 5 |
| | 0 | 0 7 | 80 | 12 | 104 | 0 | 1 7 | 1 | 26 | 41 | 18 |
| | . 5 | 8 | 61 | 9 | 107 | 7 | 7 | 2 | 23 | 43 | 3 |
| | | | | | F | | | 2 | 20 | 10 | 0 |

| 78 TABLE VL-WEIGHT OF LIVE CATTLE BY MEASUREMENT. | | | | | | | | | | | | | |
|---|-----|------|------|-------------|-------|----------------|-------|-------|------|------|------|--|--|
| Girth. | Len | gth. | Impe | rial cs. | Smith | ifield nes. | | Cwts. | | Scor | ·es. | | |
| Ft. In. | Ft. | In. | Sts. | Lbs. | Sts. | Lbs. | Cwts. | Qrs. | Lbs. | Scs. | Lbs. | | |
| 0.8 | 0 | 10 | 02 | 8 | 109 | * | 1 | 0 | 8 | 40 | 10 | | |
| | 5 | 11 | 00 | 0 | 111 | 5 | 6 | 0 | 20 | 45 | 1 | | |
| | B | 11 | 65 | 4 | 114 | 2 | 8 | 0 | 18 | 45 | 14 | | |
| | 6 | 1 | 66 | 2 | 115 | R | 8 | 1 | 2 | 46 | ß | | |
| | 6 | 2 | 67 | ī | 117 | 3 | 8 | ĩ | 15 | 46 | 19 | | |
| | 6 | 3 | 68 | õ | 119 | 0 | 8 | 2 | 0 | 47 | 12 | | |
| | 6 | 4 | 68 | 12 | 120 | 4 | 8 | 2 | 12 | 48 | 4 | | |
| | 6 | 5 | 69 | 11 | 122 | 1 | 8 | 2 | 25 | 48 | 17 | | |
| 6 10 | 4 | 4 | 48 | 4 | 84 | 4 | 6 | 0 | 4 | 33 | 16 | | |
| | 4 | 5 | 49 | 3 | 86 | 1 | 6 | 0 | 17 | 34 | 9 | | |
| | 4 | 6 | 50 | 2 | 87 | 6 | 6 | 1 | 2 | 35 | 2 | | |
| | 4 | 7 | 51 | 1 | 89 | 3 | 6 | 1 | 15 | 35 | 15 | | |
| | 4 | 8 | 52 | 0 | 91 | 0 | 6 | 2 | 0 | 36 | 8 | | |
| 1 | 4 | 9 | 52 | 13 | 92 | 5 | 6 | 2 | 13 | 37 | 1 | | |
| | 4 | 10 | 53 | 12 | 94 | 2 | 6 | 2 | 26 | 37 | 14 | | |
| | 4 | 11 | 04 | 11 | 90 | 1 | 0 | 0 | 11 | 00 | 1 | | |
| | 0 | 1 | 50 | 10 | 97 | 4 | 0 | 0 | 24 | 00 | 12 | | |
| | 5 | 9 | 57 | 0 | 100 | 0 | 1 17 | 0 | 00 | 40 | R | | |
| | 5 | 3 | 58 | 7 | 102 | 3 | 1 7 | 1 | 7 | 40 | 19 | | |
| | 5 | 4 | 59 | R | 104 | 0 | 7 | î | 20 | 41 | 12 | | |
| | 5 | 5 | 60 | 5 | 105 | 5 | 7 | 2 | 5 | 42 | 5 | | |
| | 5 | 6 | 61 | 4 | 107 | 2 | 17 | 2 | 18 | 42 | 18 | | |
| | 5 | 7 | 62 | 3 | 108 | 7 | 17 | 3 | 3 | 43 | 11 | | |
| | 5 | 8 | 63 | 2 | 110 | 4 | 7 | 3 | 16 | - 44 | 4 | | |
| | 5 | 9 | 64 | 1 | 112 | 1 | 8 | 0 | 1 | 44 | 17 | | |
| | 5 | 10 | 65 | 0 | 113 | 6 | 8 | 0 | 1,4 | 45 | 10 | | |
| | 5 | 11 | 65 | 13 | 115 | 3 | 8 | 0 | 27 | 46 | 3 | | |
| | 6 | 0 | 66 | 12 | , 117 | 0 | 8 | 1 | 12 | 46 | 16 | | |
| | 6 | 1 | 67 | 11 | 118 | 5 | 8 | 1 | 25 | 47 | 9 | | |
| | 6 | 2 | 68 | 10 | 120 | 2 | 8 | 2 | 10 | 48 | 15 | | |
| | 0 | 0 | 09 | 9 | 121 | 3 | 8 | 2 | 23 | 43 | 10 | | |
| | B | - 5 | 70 | 0 7 | 120 | 4 | 0 | 0 | 91 | 49 | 1 | | |
| | 0 | 0 | 11 | ' | 140 | 1 | 0 | 0 | 21 | 00 | - | | |
| 6 11 | 4 | 5 | 50 | 6 | 88 | 2 | 6 | 1 | 6 | 35 | 6 | | |
| | 4 | 6 | 51 | 6 | 90 | 0 | 6 | 1 | 20 | 86 | 0 | | |
| | 4 | 7 | 52 | 5 | 91 | 5 | 6 | 2 | 5 | 86 | 13 | | |
| | 4 | 8 | 53 | 4 | 93 | 2 | 6 | 2 | 18 | 37 | 6 | | |
| | 4 | 10 | 54 | 4 | 95 | 0 | 6 | 3 | 4 | 38 | 10 | | |
| | 4 | 10 | 50 | 3 | 96 | 5 | 6 | 3 | 17 | 38 | 13 | | |
| | 4 | 11 | 57 | 2 | -98 | 2 | 1 4 | 0 | 15 | 20 | 10 | | |
| | 5 | 1 | 58 | 1 | 101 | K | 1 4 | 1 | 10 | 40 | 13 | | |
| | 1 0 | | 00 | 1 | 101 | 0 | | 1 | 1 | #0 | 10 | | |

| | TABLE VIWEIGHT OF LIVE CATTLE BY MEASUREMENT. 79 | | | | | | | | | | | | | |
|--------|--|-----|------|------|---------------|---------------|----------------|-------|-------|------|------|------|--|--|
| Girth | | Len | gth. | Impe | erial ics. | Smith Stor | ifield ies. | | Cwts. | | Scot | rcs. | | |
| Ft. In | n. | Ft. | In. | Sts. | Lbs. | Sts. | Lbs. | Cwts. | Ors. | Lbs. | Scs. | Lbs. | | |
| 6 1 | 1 | 5 | 2 | 59 | 0 | 103 | 2 | 7 | 1 | 14 | 41 | 6 | | |
| | | 5 | 3 | 59 | 13 | 104 | 7 | 7 | 1 | 27 | 41 | 19 | | |
| | | 5 | 4 | 60 | 13 | 106 | 5 | 7 | 2 | 13 | 42 | 13 | | |
| | | 5 | 5 | 61 | 12 | 108 | 2 | 7 | 2 | 26 | 43 | 6 | | |
| | | 5 | 6 | 62 | 11 | 109 | 7 | 7 | 3 | 11 | 43 | 19 | | |
| | | 5 | 7 | 63 | 11 | 111 | 5 | 7 | 3 | 25 | 44 | 13 | | |
| | | 5 | 8 | 64 | 10 | 113 | 2 | 8 | 0 | 10 | 45 | 6 | | |
| | | 5 | 9 | 65 | 9 | 114 | 7 | 8 | 0 | 23 | 45 | 19 | | |
| | | 5 | 10 | 66 | 9 | 116 | 5 | 8 | 1 | 9 | 46 | 13 | | |
| | | 5 | 11 | 67 | 8 | 118 | 2 | 8 | 1 | 22 | 47 | 6 | | |
| | . 1 | 6 | 0 | 68 | 7 | 119 | 7 | 8 | 2 | 7 | 47 | 19 | | |
| | | 6 | 1 | 69 | 7 | 121 | 5 | 8 | 2 | 21 | 48 | 13 | | |
| | | 6 | 2 | 70 | 6 | 123 | 2 | 8 | 3 | 6 | 49 | 6 | | |
| | | 6 | 3 | 71 | 5 | 124 | 7 | 8 | 3 | 19 | 49 | 19 | | |
| | | 6 | 4 | 72 | 5 | 126 | 5 | 9 | 0 | 5 | 50 | 13 | | |
| | | 6 | 5 | 73 | 4 | 128 | 2 | 9 | 0 | 18 | 51 | 6 | | |
| | | 6 | 6 | 74 | 3 | 129 | 7 | 9 | 1 | 3 | 51 | 19 | | |
| 7 (| 0 | 4 | 5 | 51 | 9 | 90 | 3 | 6 | 1 | 23 | 36 | 3 | | |
| | 1 | 4 | 6 | 52 | 9 | 92 | 1 | 6 | 2 | 9 | 36 | 17 | | |
| | | 4 | 7 | 53 | 9 | 93 | 7 | 6 | 2 | 23 | 37 | 11 | | |
| | | 4 | 8 | 54 | 8 | 95 | 4 | 6 | 3 | 8 | 38 | 4 | | |
| | | 4 | 9 | 55 | 8 | 97 | 2 | 6 | 3 | 22 | 38 | 18 | | |
| | | 4 | 10 | 56 | 8 | 99 | 0 | 7 | 0 | 8 | 39 | 12 | | |
| | | 4 | 11 | 57 | 7 | 100 | 5 | 7 | 0 | 21 | 40 | 5 | | |
| | | 5 | 0 | 58 | 7 | 102 | 3 | 7 | 1 | 7 | 40 | 19 | | |
| | | 5 | 1 | 59 | 7 | 104 | 1 | 7 | 1 | 21 | 41 | 13 | | |
| | | 5 | 2 | 60 | 6 | 105 | 6 | 7 | 2 | 6 | 42 | 6 | | |
| | | 5 | 3 | 61 | 6 | 107 | 4 | 7 | 2 | 20 | 43 | 0 | | |
| | | 5 | 4 | 62 | 5 | 109 | 1 | 7 | 3 | 5 | 43 | 13 | | |
| | | 5 | 5 | 63 | 5 | 110 | 7 | 7 | 3 | 19 | 44 | 7 | | |
| | | 5 | 6 | 64 | 5 | 112 | 5 | 8 | 0 | 5 | 45 | 1 | | |
| | | 0 | 7 | 65 | 4 | 114 | 2 | 8 | 0 | 18 | 45 | 14 | | |
| | | 0 | 8 | 66 | 4 | 116 | 0 | 8 | 1 | 4 | 46 | 8 | | |
| | | 0 | 10 | 67 | 4 | 117 | 6 | 8 | 1 | 18 | 47 | 2 | | |
| | | 0 | 10 | 68 | 3 | 119 | 3 | 8 | 2 | G | 47 | 10 | | |
| | | D | 11 | 69 | 3 | 121 | 1 | 8 | 2 | 17 | 48 | 9 | | |
| | | 6 | 0 | 70 | 3 | 122 | 7 | 8 | 3 | 3 | 49 | 3 | | |
| | | 0 | 1 | 71 | 2 | 124 | 4 | 8 | 0 | 16 | 49 | 16 | | |
| | | 0 | 20 | 12 | 2 | 126 | 2 | 9 | 0 | 10 | 50 | 10 | | |
| | | 0 | 0 | 13 | 2 | 128 | 0 | 9 | 0 | 10 | 01 | 4 | | |
| | | 0 | 1 | 14 | 1 | 129 | 0 | 1 9 | 1 | 1. | 01 | 11 | | |
| | | 0 | 0 | 10 | 1 | 101 | 0 | 3 | 1 | 10 | 52 | 11 | | |
| | | 0 | 0 | 10 | 1 | 100 | 1 | 9 | 2 | 1 | 00 | 0 | | |
| 7 | 1 | 4 | 6 | 53 | 13 | 94 | 3 | 6 | 2 | 27 | 37 | 15 | | |

| 80 TABLE VIWEIGHT OF LIVE CATTLE BY MEASUREMENT. | | | | | | | | | | | | |
|--|-----|-------|------|---------------|------|---------------|------|-----|--------|------|------|--|
| Girth. | Ler | igth. | Impo | erial nes. | Ston | field ies. | | Cwt | s. | Sco | res. | |
| Ft. In. | FL. | In. | Sts. | Lbs. | Sts. | Lbs. | Cwts | Qr | . Lbs. | Scs. | Lbs. | |
| 7 1 | 4 | 7 | 54 | 13 | 96 | 1 | 6 | 3 | 13 | 38 | 9 | |
| | 4 | 8 | 55 | 13 | 97 | 7 | 6 | 3 | 27 | 39 | 3 | |
| | 4 | 9 | 56 | 13 | 99 | 5 | 7 | 0 | 13 | 39 | 17 | |
| | 4 | 10 | 57 | 13 | 101 | 3 | 7 | 0 | 27 | 40 | 11 | |
| | 4 | 11 | 58 | 13 | 103 | 1 | 7 | 1 | 13 | 41 | 5 | |
| | 5 | 0 | 59 | 12 | 104 | 6 | 7 | 1 | 26 | 41 | 18 | |
| | 5 | 1 | 60 | 12 | 106 | 4 | 7 | 2 | 12 | 42 | 12 | |
| | 5 | 2 | 61 | 12 | 108 | 2 | 7 | 2 | 26 | 43 | 6 | |
| | 5 | 3 | 62 | 12 | 110 | 0 | 7 | 3 | 12 | 44 | 0 | |
| | 5 | 4 | 63 | 12 | 111 | 6 | 7 | 3 | 26 | 44 | 14 | |
| | 5 | 5 | 64 | 12 | 113 | 4 | 8 | 0 | 12 | 45 | 8 | |
| | 5 | 6 | 65 | 12 | 115 | 2 | 8 | 0 | 26 | 46 | 2 | |
| | 5 | 7 | 66 | 12 | 117 | 0 | 8 | 1 | 12 | 46 | 16 | |
| | 5 | 8 | 67 | 12 | 118 | 6 | 8 | 1 | 26 | 47 | 10 | |
| | 5 | 9 | 68 | 12 | 120 | 4 | 8 | 2 | 12 | 48 | 4 | |
| | 5 | 10 | 69 | 12 | 122 | 2 | 8 | 2 | 26 | 48 | 18 | |
| | 5 | 11 | 70 | 12 | 124 | 0 | 8 | 3 | 12 | 49 | 12 | |
| | 6 | 0 | 71 | 12 | 125 | 6 | 8 | 3 | 26 | 50 | 6 | |
| | 6 | ĩ | 72 | 12 | 127 | 4 | 9 | 0 | 12 | 51 | 0 | |
| 111 0 | 6 | 2 | 73 | 12 | 129 | 2 | 9 | 0 | 26 | 51 | 14 | |
| | ß | 3 | 74 | 12 | 1.81 | 0 | 9 | 1 | 12 | 52 | 8 | |
| | 6 | 4 | 75 | 12 | 132 | 6 | 9 | i | 28 | 53 | 2 | |
| | B | 5 | 76 | 12 | 134 | 4 | 0 | 2 | 19 | 59 | 16 | |
| | ß | 6 | 77 | 12 | 136 | 2 | 0 | 2 | 28 | 54 | 10 | |
| | ß | 7 | 78 | 12 | 139 | ő | 0 | 2 | 19 | 55 | 10 | |
| | | | 10 | 1 | 100 | 0 | | 0 | 1.2 | 00 | - | |
| 7 2 | 4 | 6 | 55 | 8 | 96 | 5 | 6 | 3 | 17 | 38 | 13 | |
| | 4 | 7 | 56 | 3 | 98 | 3 | 7 | 0 | 3 | 39 | 7 | |
| | 4 | 8 | 57 | 3 | 100 | 1 | 7 | 0 | 17 | 40 | 1 | |
| | 4 | 9 | - 58 | 8 | 101 | 7 | 7 | 1 | 3 | 40 | 15 | |
| | 4 | 10 | 59 | 4 | 103 | 6 | 7 | 1 | 18 | 41 | 10 | |
| | 4 | 11 | 60 | 4 | 105 | 4 | 7 | 2 | 4 | 42 | 4 | |
| | 8 | 0 | 61 | 4 | 107 | 2 | 7 | 2 | 18 | 42 | 18 | |
| | 5 | 1 | 62 | 5 | -109 | 1 | 7 | 3 | 5 | 43 | 13 | |
| | 5 | 2 | 63 | 5 | 110 | 7 | 7 | 3 | 19 | 44 | 7 | |
| | 5 | 3 | 64 | 5 | 112 | 5 | 8 | 0 | 5 | 45 | 1 | |
| | 5 | 4 | 65 | 6 | 114 | 4 | 8 | 0 | 20 | 45 | 16 | |
| | 5 | 5 | 66 | 6 | 116 | 2 | 8 | 1 | 6 | 46 | 10 | |
| | 5 | 6 | 67 | 6 | 118 | 0 | 8 | 1 | 20 | 47 | 4 | |
| | 5 | 7 | 68 | 6 | 119 | 6 | 8 | 2 | 6 | 47 | 18 | |
| | 5 | 8 | 69 | 7 | 121 | 5 | 8 | 2 | 21 | 48 | 13 | |
| | 5 | 9 | 70 | 7 | 123 | 3 | 8 | 3 | 7 | 49 | 7 | |
| | 5 | 10 | 71 | 7 | 125 | 1 | 8 | 3 | 21 | 50 | 1 | |
| | 5 | 11 | 72 | 8 | 127 | 0 | 9 | 0 | 8 | 50 | 16 | |
| | 6 | 0 | 73 | 8 | 128 | 6 | 9 | 0 | 22 | 51 | 10 | |
| | .6 | 1 | 74 | 8 | 130 | 4 | 9 | 1 | 8 | 52 | 4 | |
| | | | | | | | | | | | | |

| 15 | | B VI | | nr or | LIVE | ALTIN | 5 DI | MFAS | UREM | ENT. | 01 |
|---------|-----|-------|-------------|---------------|---------------|----------------|------|-------|------|------|------|
| Girth. | Lan | igth. | Imp Stor | erial nes. | Smith Stor | ifield ies. | | Cwts. | | Scot | es. |
| Ft. In. | Ft. | In. | Sts. | Lbs. | Sts. | Lbs. | Cwts | Qrs. | Lbs. | Scs. | Lbs. |
| 7 2 | 6 | 2 | 75 | 9 | 132 | 3 | 9 | 1 | 23 | 52 | 19 |
| | 6 | 3 | 76 | 9 | 134 | 1 | 9 | 2 | 9 | 53 | 13 |
| | 6 | 4 | 77 | 9 | 135 | 7 | 9 | 2 | 23 | 54 | 7 |
| | 6 | 5 | 78 | 10 | 137 | 6 | 9 | 3 | 10 | 55 | 2 |
| | 6 | 6 | 79 | 10 | 139 | 4 | .9 | 3 | 24 | 55 | 16 |
| | 6 | 7 | 80 | 10 | 141 | 2 | 10 | 0 | 10 | 56 | 10 |
| 7 3 | 4 | 7 | .57 | 7 | 100 | 5 | 7 | 0 | 21 | 40 | 5 |
| | 4 | 8 | 58 | 8 | 102 | 4 | 7 | 1 | 8 | 41 | 0 |
| | 4 | 9 | 59 | 8 | 104 | 2 | 7 | 1 | 22 | 41 | 14 |
| | 4 | 10 | 60 | 9 | 106 | 1 | 7 | 2 | 9 | 42 | 9 |
| | 4 | 11 | 61 | 10 | 108 | 0 | 7 | 2 | 24 | 43 | 4 |
| | 5 | 0 | 62 | 10 | 109 | 6 | 7 | 3 | 10 | 43 | 18 |
| | 5 | 1 | 63 | 11 | 111 | 5 | 7 | 3 | 25 | 44 | 13 |
| | 5 | 2 | 64 | 12 | 113 | 4 | 8 | 0 | 12 | 45 | 8 |
| | 5 | 3 | 65 | 12 | 115 | 2 | 8 | 0 | 26 | 46 | 2 |
| | 5 | 4 | 66 | 13 | 117 | 1 | 8 | 1 | 13 | 46 | 17 |
| | 5 | 5 | 68 | 0 | 119 | 0 | 8 | 2 | 0 | 47 | 12 |
| | 5 | 6 | 69 | 0 | 120 | 6 | 8 | 2 | 14 | 48 | 6 |
| | 5 | 7 | 70 | 1 | 122 | 5 | 8 | 3 | 1 | 49 | 1 |
| | 5 | 8 | 71 | 1 | 124 | 4 | 8 | 3 | 15 | 49 | 15 |
| | 5 | 9 | 72 | 2 | 126 | 2 | 9 | 0 | 2 | 50 | 10 |
| | 5 | 10 | 73 | 3 | 128 | 1 | 9 | 0 | 17 | 51 | 5 |
| | 5 | 11 | 74 | 3 | 129 | 7 | 9 | 1 | 3 | 51 | 19 |
| | 6 | 0 | 75 | 4 | 131 | 6 | 9 | 1 | 18 | 52 | 14 |
| | 6 | 1 | 76 | 5 | 133 | 5 | 9 | 2 | 5 | 53 | 9 |
| | 6 | 2 | 77 | 5 | 135 | 3 | 9 | 2 | 19 | 54 | 3 |
| | 6 | 3 | 78 | 6 | 137 | 2 | 9 | 3 | 6 | 54 | 18 |
| | 6 | 4 | 79 | 7 | 139 | 1 | 9 | 3 | 21 | 55 | 13 |
| | 6 | 5 | 80 | 7 | 140 | 7 | 10 | 0 | 7 | 56 | 7 |
| | 6 | 6 | 81 | 8 | 142 | 6 | 10 | 0 | 22 | 57 | 2 |
| | 6 | 7 | 82 | 9 | 144 | 5 | 10 | 1 | 9 | 57 | 17 |
| | 6 | 8 | 83 | 9 | 146 | 8 | 10 | 1 | 23 | 58 | 11 |
| 7 4 | • 4 | 7 | 58 | 12 | 103 | 0 | 7 | 1 | 12 | 41 | 4 |
| | 4 | 8 | 59 | 13 | 104 | 7 | 7 | 1 | 27 | 41 | 19 |
| | 4 | 9 | 61 | 0 | 106 | 6 | 7 | 2 | 14 | 42 | 14 |
| | 4 | 10 | 62 | 1 | 108 | 5 | 7 | 3 | 1 | 43 | 9 |
| | 4 | 11 | 63 | 2 | 110 | 4 | 7 | 3 | 16 | 44 | 4 |
| | 5 | 0 | 64 | 3 | 112 | 3 | 8 | 0 | 3 | 44 | 19 |
| | 5 | 1 | 65 | 4 | 114 | 2 | 8 | 0 | 18 | 45 | 14 |
| | 5 | 2 | 66 | 5 | 116 | 1 | 8 | 1 | 5 | 46 | 9 |
| | 5 | 3 | 67 | 6 | 118 | 0 | 8 | 1 | 20 | 47 | 4 |
| | 5 | 4 | 68 | 7 | 119 | 7 | 8 | 2 | 7 | 47 | 19 |
| | 5 | 5 | 69 | 8 | 121 | 6 | 8 | 2 | 22 | 48 | 14 |
| | 5 | 6 | 70 | 9 | 123 | 5 | 8 | 3 | 9 | 49 | 9 |

| 82 TABLE VIWEIGHT OF LIVE CATTLE BY MEASUREMENT. Girth. Length, Imperial Smithfield Cwts. Scores. | | | | | | | | | | | | | |
|--|-----|-----|------|------|--------------|-------|--------------|-------|------|------|------|------|--|
| Gi | th. | Lep | gth, | Impo | erial xon | Smith | field es. | | Cwta | | Scot | ves. | |
| Ft. | In. | Ft. | In. | Sts. | Lbs. | Sts. | Lbs. | Cwts. | Qrs | Lbs. | Scs. | Lbs. | |
| 7 | 4 | 5 | 7 | 71 | 10 | 125 | 4 | 8 | 3 | 24 | 50 | 4 | |
| | | 5 | 8 | 72 | 11 | 127 | 3 | 9 | 0 | 11 | 50 | 19 | |
| | | 5 | 9 | 73 | 12 | 129 | 2 | 9 | 0 | 26 | 51 | 14 | |
| | | 5 | 10 | 74 | 13 | 131 | 1 | 9 | 1 | 13 | 52 | 9 | |
| | | 5 | 11 | 75 | 13 | 132 | 7 | 9 | 1 | 27 | 53 | 3 | |
| | | 6 | 0 | 77 | 0 | 134 | 6 | 9 | 2 | 14 | 53 | 18 | |
| | | 6 | 1 | 78 | 1 | 136 | 5 | 9 | 3 | 1 | 54 | 13 | |
| | | 6 | 2 | 79 | 2 | 138 | 4 | 9 | 3 | 16 | 55 | 8 | |
| | | 6 | 3 | 80 | 3 | 140 | 3 | 10 | 0 | 3 | 56 | 3 | |
| | | 6 | 4 | 81 | 4 | 142 | 2 | 10 | 0 | 18 | 56 | 18 | |
| | | 6 | 5 | 82 | 5 | 144 | 1 | 10 | 1 | 5 | 57 | 13 | |
| | | 6 | 6 | 83 | 6 | 146 | 0 | 10 | 1 | 20 | 58 | 8 | |
| | | 6 | 7 | 84 | 7 | 147 | 7 | 10 | 2 | 7 | 59 | 8 | |
| | | 6 | 8 | 85 | 8 | 149 | 6 | 10 | 2 | 22 | 59 | 18 | |
| 7 | 5 | 4 | 8 | 61 | 4 | 107 | 2 | 7 | 2 | 18 | 42 | 18 | |
| | | 4 | 9 | 62 | 5 | 109 | 1 | 7 | 3 | 5 | 43 | 13 | |
| | | 4 | 10 | 63 | 7 | 111 | 1 | 7 | 3 | 21 | 44 | 9 | |
| | | 4 | 11 | 64 | 8 | 113 | 0 | 8 | 0 | 8 | 45 | 4 | |
| | | 5 | 0 | 65 | 9 | I14 | 7 | 8 | 0 | 23 | 45 | 19 | |
| | | 5 | 1 | 66 | 11 | 116 | 7 | 8 | 1 | 11. | 46 | 15 | |
| | | 5 | 2 | 67 | 12 | 118 | 6 | 8 | 1 | 26 | 47 | 10 | |
| | | 5 | 3 | 68 | 13 | 120 | 5 | 8 | 2 | 13 | 48 | 5 | |
| | | 5 | 4 | 70 | 1 | 122 | 5 | 8 | 3 | 1 | 49 | 1 | |
| | | 5 | 5 | 71 | 2 | 124 | 4 | 8 | 8 | 16 | 49 | 16 | |
| | | 5 | 6 | 72 | 3 | 126 | 3 | 9 | 0 | 3 | 50 | 11 | |
| | | 5 | 7 | 73 | 5 | 128 | 3 | 9 | 0 | 19 | 51 | 7 | |
| | | 5 | 8 | 74 | 6 | 130 | 2 | 9 | 1 | 6 | 52 | 2 | |
| | | 5 | 9 | 75 | 7 | 132 | 1 | 9 | 1 | 21 | 52 | 17 | |
| | 1 | 5 | 10 | 76 | 8 | 134 | 0 | 9 | 2 | 8 | 53 | 12 | |
| | | õ | 11 | 77 | 10 | 136 | 0 | 9 | 2 | 24 | 54 | 8 | |
| | | 6 | 0 | 78 | 11 | 137 | 7 | 9 | 3 | 11 | 55 | 3 | |
| | | 0 | 1 | 79 | 12 | 139 | 6 | 9 | 3 | 26 | 55 | 18 | |
| | | 6 | 2 | 81 | 0 | 141 | 6 | 10 | 0 | 14 | 56 | 14 | |
| | | 6 | 3 | 82 | 1 | 143 | 0 | 10 | 1 | I | 57 | 9 | |
| | | 6 | 4 | 83 | 2 | 145 | 4 | 10 | 1 | 16 | 58 | 4 | |
| | | 0 | 0 | 84 | 4 | 147 | 4 | 10 | 2. | 4 | 09 | 0 | |
| | | 6 | 6 | 85 | 5 | 149 | 3 | 10 | 2 | 19 | 69 | 15 | |
| | | 6 | 7 | 86 | 6 | 151 | Z | 10 | 3 | 6 | 60 | 10 | |
| | | 6 | 8 | 87 | 8 | 153 | 2 | 10 | 3 | 22 | 61 | 0 | |
| | | 6 | 9 | 88 | 9 | 155 | T | 11 | 0 | 9 | 62 | 1 | |
| 7 | 6 | 4 | 8 | 62 | 9 | 109 | 5 | 7 | 3 | 9 | 43 | 17 | |
| | | 4 | 9 | 63 | 11 | 111 | 5 | 7 | 3 | 25 | 44 | 13 | |
| | | 4 | 10 | 64 | 13 | 113 | 5 | 8 | 0 | 13 | 45 | 9 | |
| | | 4 | 11 | 66 | 0 | 115 | 4 | 8 | I | 0 | 46 | 4 | |

| TABLE VIWEIGHT OF LIVE CATTLE BY MEASUREMENT. 83 | | | | | | | | | | | | | |
|--|--------|------|------------|---------------|-------|---------------|------|-----|------|----------|------|--|--|
| Girth. | Ler | gth. | 1mp Sto | crial ncs. | Smith | field tes. | | Cwt | 8, | Sco | res. | | |
| Ft. In. | Ft. | In. | Sts. | Lbs. | Sts. | Lbs. | Cwts | Qr | Lbs. | Scs. | Lha | | |
| 7 6 | 5 | 0 | 67 | 2 | 117 | 4 | 8 | 1 | 16 | 47 | 0 | | |
| | 5 | 1 | 68 | 4 | 119 | 4 | 8 | 2 | 4 | 47 | 16 | | |
| | 5 | 2 | 69 | 5 | 121 | 3 | 8 | 2 | 19 | 48 | 11 | | |
| | Б | 3 | 70 | 7 | 123 | 3 | 8 | 3 | 7 | 49 | 7 | | |
| | 5 | 4 | 71 | 9 | 125 | 3 | 8 | 3 | 23 | 50 | 3 | | |
| | 5 | 5 | 72 | 10 | 127 | 2 | 9 | 0 | 10 | 50 | 18 | | |
| | 5 | 6 | 73 | 12 | 129 | 2 | 9 | 0 | 26 | 51 | 14 | | |
| | 5 | 7 | 75 | 0 | 131 | 2 | 9 | 1 | 14 | 52 | 10 | | |
| | 5 | 8 | 76 | 1 | 133 | 1 | 9 | 2 | 1 | 53 | 5 | | |
| | 5 | 9 | 77 | 3 | 135 | 1 | 9 | 2 | 17 | 54 | 1 | | |
| | 5 | 10 | 78 | 5 | 137 | 1 | 9 | 3 | 5 | 54 | 17 | | |
| | 5 | 11 | 79 | 6 | 139 | 0 | 9 | 3 | 20 | 55 | 12 | | |
| | 6 | 0 | 80 | 8 | 141 | 0 | 10 | 0 | 8 | 56 | 8 | | |
| | 6 | 1 | 81 | 10 | 143 | 0 | 10 | 0 | 24 | 57 | 4 | | |
| | 6 | 2 | 82 | 11 | 144 | 7 | 10 | 1 | 11 | 57 | 19 | | |
| | 6 | 3 | 83 | 13 | 146 | 7 | 10 | 1 | 27 | 58 | 15 | | |
| | 6 | 4 | 85 | 1 | 148 | 7 | 10 | 2 | 15 | 59 | 11 | | |
| | 6 | 5 | 86 | 2 | · 150 | 6 | 10 | 3 | 2 | 60 | 6 | | |
| | 6 | 6 | 87 | 4 | 152 | 6 | 10 | 3 | 18 | 61 | 2 | | |
| | 6 | 7 | 88 | 6 | 154 | 6 | 11 | 0 | 6 | 61 | 18 | | |
| | 6 | 8 | 89 | 7 | 156 | 5 | 11 | 0 | 21 | 62 | 13 | | |
| | 6 | 9 | 90 | 9 | 158 | 5 | 11 | 1 | 9 | 63 | 9 | | |
| | 6 | 10 | 91 | 11 | 160 | б | 11 | 1 | 25 | 64 | 5 | | |
| ī " | 4 | 9 | 65 | 3 | 114 | 1 | 8 | 0 | 17 | 45 | 13 | | |
| | 4 | 10 | EB | 5 | 116 | 1 | 8 | 1 | 5 | 46 | 9 | | |
| | 4 | 11 | 67 | 7 | 118 | 1 | 8 | 1 | 21 | 47 | 5 | | |
| | 5 | 0 | 68 | 9 | 120 | 1 | 8 | 2 | 9 | 48 | 1 | | |
| | 5 | 1 | 69 | 11 | 122 | 1 | 8 | 2 | 25 | 48 | 17 | | |
| | 5 | 2 | 70 | 13 | 124 | 1 | 8 | 8 | 13 | 49 | 13 | | |
| | 0 | 3 | 72 | 1 | 126 | 1 | 9 | 0 | 1 | 50 | 9 | | |
| | 0 | 4 | 73 | 3 | 128 | 1 | 9 | 0 | 17 | 51 | D | | |
| | 0 | D | 74 | 5 | 130 | 11 | 9 | 1 | 0 | DZ FO | 1.00 | | |
| | 0 | 0 | 10 | 7 | 132 | 1 | 9 | 1 | 21 | 62 | 10 | | |
| | 0 K | 0 | 10 | 11 | 134 | 1 | 9 | 4 | 95 | 54 | 10 | | |
| | 5 | 0 | 70 | 10 | 130 | 1 | 9 | 0 | 19 | 55 | 5 | | |
| | 5 | 10 | 10 | 10 | 100 | | 10 | 0 | 10 | 50 | 1 | | |
| | 0 | 10 | 01 | 1 | 140 | 1 | 10 | 0 | 17 | 50 | 17 | | |
| | B | 11 | 00 | 0 1 | 142 | 1 | 10 | 1 | 11 | 57 | 19 | | |
| | ß | 1 | 02 | 0 77 | 146 | 1 | 10 | 1 | 91 | 58 | 0 | | |
| | ß | 2 | 84 | 0 | 140 | 1 | 10 | 2 | 6 | 50 | 5 | | |
| | ß | 0 | 20 | 11 | 150 | 1 | 10 | 2 | 95 | 60 | 1 | | |
| | ß | 4 | 90 | 12 | 159 | 1 | 10 | 3 | 13 | 60 | 17 | | |
| | ß | 5 | 89 | 10 | 154 | 1 | 11 | 0 | 10 | 61 | 18 | | |
| | ß | 0 | 80 | 2 | 150 | 1 | 11 | 0 | 17 | 82 | 0 | | |
| 1 | 0 | 01 | 08 | 0 | 100 | 1 1 | 11 | 0 | 11 | 02 | 0 | | |

| Girth. | Ler | ngth. | Imp | erial acs. | Smith | ifield nes. | 1 | Cwts | | Sea | res. |
|---------|-----|-------|------|---------------|-------|----------------|------|------|------|------|------|
| Ft. In. | Ft. | In. | Sts. | Lbs. | Sts. | Lbs. | Cwts | Qrs. | Lbs. | Scs. | Lbs |
| 77 | 6 | 7 | 90 | 5 | 158 | 1 | 11 | 1 | 5 | 63 | 5 |
| | 6 | 8 | 91 | 7 | 160 | 1 | 11 | 1 | 21 | 64 | 1 |
| | 6 | 9 | 92 | 9 | 162 | 1 | 11 | 2 | 9 | 64 | 17 |
| | 6 | 10 | 93 | 11 | 164 | 1 | 11 | 2 | 25 | 65 | 13 |
| | 6 | 11 | 94 | 13 | 166 | 1 | 11 | 3 | 13 | 66 | 9 |
| 7 8 | 4 | 9 | 66 | 9 | 116 | 5 | 8 | 1 | 9 | 46 | 13 |
| | 4 | 10 | 67 | 12 | 118 | 6 | 8 | 1 | 26 | 47 | 10 |
| | 4 | 11 | 69 | 0 | 120 | 6 | 8 | 2 | 14 | 48 | 6 |
| | 5 | 0 | 70 | 2 | 122 | 6 | 8 | 3 | 2 | 49 | 2 |
| | 5 | 1 | 71 | 5 | 124 | 7 | 8 | 3 | 19 | 49 | 19 |
| | 5 | 2 | 72 | 7 | 126 | 7 | 9 | 0 | 7 | 50 | 15 |
| | 5 | 3 | 73 | 9 | 128 | 7 | 9 | 0 | 23 | 51 | 11 |
| | 5 | 4 | 74 | 12 | 131 | 0 | 9 | 1 | 12 | 52 | 8 |
| | ŏ | 5 | 76 | 0 | 133 | 0 | 9 | 2 | 0 | 53 | 4 |
| | 5 | 6 | 77 | 3 | 135 | 1 | 9 | 2 | 17 | 54 | 1 |
| | 5 | 7 | 78 | 5 | 137 | 1 | 9 | 3 | 5 | 54 | 17 |
| | 5 | 8 | 79 | 7 | 139 | 1 | 9 | 3 | 21 | 55 | 13 |
| | 5 | 9 | 80 | 10 | 141 | 2 | 10 | 0 | 10 | 56 | 10 |
| | 5 | 10 | 81 | 12 | 143 | 2 | 10 | 0 | 26 | 57 | 6 |
| | 5 | 11 | 83 | 0 | 145 | 2 | 10 | 1 | 14 | 58 | 2 |
| | 6 | 0 | 84 | 3 | 147 | 3 | 10 | 2 | 3 | 58 | 19 |
| | 6 | 1 | 85 | 5 | 149 | 3 | 10 | 2 | 19 | 59 | 15 |
| | 6 | 2 | 86 | 7 | 151 | 3 | 10 | 3 | 7 | 60 | 11 |
| | 6 | 3 | 87 | 10 | 153 | 4 | 10 | 3 | 24 | 61 | 8 |
| | 6 | 4 | 88 | 12 | 155 | 4 | 11 | 0 | 12 | 62 | 4 |
| | 6 | 5 | 90 | 1 | 157 | 5 | 11 | 1 | 1 | 63 | 1 |
| | 6 | 6 | 91 | 3 | 159 | 5 | 11 | 1 | 17 | 63 | 17 |
| | 6 | 7 | 92 | 5 | 161 | 5 | 11 | 2 | 5 | 64 | 13 |
| | 6 | 8 | 93 | 8 | 163 | 6 | 11 | 2 | 22 | 65 | 10 |
| | 6 | 9 | 94 | 10 | 165 | 6 | 11 | 3 | 10 | 66 | 6 |
| | 6 | 10 | 95 | 12 | 167 | 6 | 11 | 3 | 26 | 67 | 2 |
| | 6 | 11 | 97 | 1 | 169 | 7 | 12 | 0 | 15 | 67 | 19 |
| 1 | 7 | 0 | 98 | 3 | 171 | 7 | 12 | 1 | 3 | 68 | 15 |
| 7 9 | 4 | 10 | 69 | 4 | 121 | 2 | 8 | 2 | 18 | 48 | 10 |
| | 4 | 11 | 70 | 7 | 123 | 3 | 8 | 3 | 7 | 49 | 7 |
| | 5 | 0 | 71 | 10 | 125 | 4 | 8 | 3 | 24 | 50 | 4 |
| | 5 | 1 | 72 | 12 | 127 | 4 | 9 | 0 | 12 | 51 | 0 |
| | 5 | 2 | 74 | 1 | 129 | 5 | 9 | 1 | 1 | 51 | 17 |
| | 5 | 3 | 75 | 4 | 131 | 6 | 9 | 1 | 18 | 52 | 14 |
| | 5 | 4 | 76 | 7 | 133 | 7 | 9 | 2 | 7 | 53 | 11 |
| | 5 | 5 | 77 | 9 | 135 | 7 | 9 | 2 | 23 | 54 | 7 |
| | 5 | 6 | 78 | 12 | 138 | θ. | 9 | 3 | 12 | 55 | 4 |
| | 5 | 7 | 80 | 1 | 140 | 1 | 10 | 0 | 1 | 56 | 1 |
| | 5 | 81 | 81 | 4 | 142 | 2 | 10 | 0 | 18 | 56 | 18 |

| TABLE VIWEIGHT OF LIVE CATTLE BY MEASUREMENT. 85 | | | | | | | | | | | | |
|--|-----|------|------------|---------------|-------------|----------------|-------|------|------|------|------|--|
| Girth. | Len | gth. | Imp Sto | erial nes. | Smit Sto | hfield nes. | | Cwts | | Scot | res. | |
| Ft. In. | Ft. | In. | Sts. | Lbs. | Sts. | Lbs. | Cwts. | Qrs. | Lbs. | Scs. | Lbs. | |
| 7 9 | 5 | 9 | 82 | 6 | 144 | 2 | 10 | 1 | 6 | 57 | 14 | |
| | 5 | 10 | 83 | 9 | 146 | 3 | 10 | 1 | 23 | 58 | 11 | |
| | 5 | 11 | 84 | 12 | 148 | 4 | 10 | 2 | 12 | 59 | 8 | |
| | 6 | 0 | 86 | 1 | 150 | 5 | 10 | 3 | 1 | 60 | 5 | |
| | 6 | 1 | 87 | 3 | 152 | 5 . | 10 | 3 | 17 | 61 | 1 | |
| | 6 | 2 | 88 | 6 | 154 | 6 . | 11 | 0 | 6 | 61 | 18 | |
| | 6 | 3 | 89 | 9 | 156 | 7 | 11 | 0 | 23 | 62 | 15 | |
| | 6 | 4 | 90 | 11 | 158 | 7 | 11 | 1 | 11 | 63 | 11 | |
| | 6 | 5 | 92 | 0 | 161 | Ó | 11 | 2 | 0 | 64 | 8 | |
| | 6 | 6 | 93 | 3 | 163 | 1 | 11 | 2 | 17 | 65 | 5 | |
| | 6 | 7 | 94 | 6 | 165 | 2 | 11 | 3 | 6 | 66 | 2 | |
| | 6 | 8 | 95 | 8 | 167 | 2 | 11 | 3 | 22 | 66 | 18 | |
| | 6 | 9 | 96 | 11 | 169 | 3 | 12 | 0 | 11 | 67 | 15 | |
| | 6 | 10 | 98 | 0 | 171 | 4 | 12 | 1 | 0 | 68 | 12 | |
| | 6 | 11 | 99 | 3 | 173 | 5 | 12 | i | 17 | 69 | 9 | |
| | 7 | 0 | 100 | 5 | 175 | 5 | 12 | 2 | 5 | 70 | 5 | |
| | 7 | 1 | 101 | 8 | 177 | 6 | 12 | 2 | 22 | 71 | 2 | |
| | | | | | | | | | | | 2 | |
| 7 10 | 4 | 10 | 70 | 11 | 123 | 7 | 8 | 3 | 11 | 49 | 11 | |
| 1 10 | 4 | 11 | 72 | 0 | 126 | ò | 9 | 0 | 0 | 50 | 8 | |
| | 5 | 0 | 73 | 3 | 128 | 1 | o l | 0 | 17 | 51 | 5 | |
| | 5 | 1 | 74 | 7 | 130 | 3 | 9 | 1 | 7 | 52 | 3 | |
| | 5 | 2 | 75 | 10 | 132 | 4 | 9 | î | 24 | 53 | 0 | |
| | 5 | 3 | 76 | 13 | 134 | 5 | 9 | 2 | 18 | 53 | 17 | |
| | 5 | 4 | 78 | 2 | 136 | 6 | 9 | 3 | 2 | 54 | 14 | |
| | 5 | 5 | 70 | 5 | 139 | 7 | 0 | 3 | 10 | 55 | 11 | |
| | 5 | R | 80 | 8 | 141 | ò | 10 | 0 | 8 | 56 | 8 | |
| | 5 | 7 | 81 | 11 | 143 | 1 | 10 | 0 | 25 | 57 | 5 | |
| | 5 | è | 69 | 0 | 145 | 0 | 10 | 1 | 14 | 59 | 9 | |
| | 5 | ő | 84 | 3 | 147 | 3 | 10 | 2 | 9 | 58 | 10 | |
| | 5 | 10 | 85 | 6 | 149 | 4 | 10 | 2 | 20 | 50 | 16 | |
| | 5 | 11 | 86 | 9 | 151 | 5 | 10 | 3 | 9 | 60 | 13 | |
| | ß | 0 | 87 | 13 | 153 | 7 | 10 | 3 | 27 | 61 | 11 | |
| | 6 | i | 89 | 2 | 156 | -0 | 11 | 0 | 16 | 62 | 8 | |
| | 6 | 2 | 90 | 15 | 158 | 1 | 11 | 1 | 5 | 63 | 5 | |
| | 6 | 3 | 91 | 8 | 160 | 2 | 11 | î | 22 | 64 | 2 | |
| | 8 | 4 | 02 | 11 | 162 | 3 | 11 | 2 | 11 | 64 | 19 | |
| | 6 | 5 | 94 | 0 | 164 | 4 | 11 | 3 | 0 | 65 | 16 | |
| | ß | ß | .05 | 3 | 166 | 5 | 11 | 3 | 17 | 66 | 13 | |
| | 65 | 7 | 98 | 6 | 168 | 6 | 12 | 0 | R | 67 | 10 | |
| | 6 | - 8 | 97 | 9 | 170 | 7 | 12 | 0 | 23 | 68 | 7 | |
| | 6 | 9 | . 98 | 12 | 173 | ò | 12 | 1 | 12 | 69 | 4 | |
| | 6 | 10 | 100 | 1 | 175 | 1 | 12 | 2 | 1 | 70 | 1 | |
| | 6 | 11 | 101 | 5 | 177 | 3 | 12 | 2 | 19 | 70 | 19 | |
| | 7 | 0 | 102 | 8 | 179 | 4 | 12 | 3 | 8 | 71 | 16 | |
| | 7 | 1 | 103 | 11 | 181 | 5 | 12 | 3 | 25 | 72 | 13 | |
| | | * | 200 | | 101 | - | 1 ~~ | 0 | 20 | | 10 | |

86 TABLE VI.-WEIGHT OF LIVE CATTLE BY MEASUREMENT.

| Girth. | Len | gth. | Imp Stor | erial nes. | Smith | nfield nes. | | Cwts | I. | Scot | .123. |
|---------|--------|------|-------------|---------------|-------|----------------|-------|----------|------|------|-------|
| Ft. In. | Ft. | In. | Sta. | Lbs. | Sta. | Lbs. | Cwts. | Qra | Lbs. | Scs. | Lbs. |
| 7 10 | 7 | 2 | 105 | 0 | 183 | 6 | 13 | 0 | 14 | 73 | 10 |
| 7 11 | 4 | 11 | 73 | 8 | 128 | 6 | 9 | 0 | 22 | 51 | 10 |
| | 5 | 0 | 74 | 11 | 130 | 7 | 9 | 1 | 11 | 52 | 7 |
| | 5 | 1 | 76 | - 1 - | 133 | 1 | 9 | 2 | 1 | 53 | Б |
| | 5 | 2 | 77 | 4 | 135 | 2 | 9 | 2 | 18 | 54 | 2 |
| | 5 | 3 | 78 | 8 | 137 | 4 | 9 | 3 | 8 | 55 | 0 |
| | 5 | 4 | 79 | 11 | 139 | 5 | 9 | 3 | 25 | 55 | 17 |
| | 8 | 5 | 81 | 1 | 141 | 7 | 10 | 0 | 15 | 56 | 15 |
| | 5 | 6 | 82 | 4 | 144 | 0 | 10 | 1 | 4 | 57 | 12 |
| | 0 | 7 | 83 | 8 | 140 | 2 | 10 | 1 | 22 | 00 | 10 |
| | 0 | 8 | 84 | 11 | 148 | 3 | 10 | 2 | 11 | 00 | 3 |
| | 0 | 10 | 80 | 0 | 100 | * | 10 | 0 | 10 | 00 | 4 |
| | 0 | 10 | 07 | .4 | 102 | 0 | 11 | 0 | 10 | 01 | 10 |
| | 0 | 11 | 00 | 11 | 157 | | 11 | 0 | 95 | 62 | 17 |
| | e e | 1 | 01 | 11 | 150 | 0 | 111 | ĭ | 14 | 63 | 14 |
| | ß | 0 | 02 | 4 | 161 | 4 | 11 | 2 | 4 | 64 | 12 |
| | ß | . 8 | 0.3 | 7 | 163 | 5 | 11 | 2 | 21 | 65 | 0 |
| | 6 | 4 | 94 | - 11 | 165 | 7 | 111 | ŝ | 11 | 66 | 7 |
| | 6 | 5 | 96 | 0 | 168 | ò | 12 | ō | 0 | 67 | 4 |
| | 6 | 6 | 97 | 4 | 170 | 2 | 12 | 0 | 18 | 68 | 2 |
| | 6 | 7 | 98 | 7 | 172 | 3 | 12 | 1 | 7 | 68 | 19 |
| | 6 | 8 | 99 | 11 | 174 | 5 | 12 | 1 | 25 | 69 | 17 |
| | 6 | 9 | 101 | 0 | 176 | 6 | 12 | 2 | 14 | 70 | 14 |
| | 6 | 10 | 102 | 3 | 178 | 7 | 12 | 8 | 3 | 71 | 11 |
| | 6 | 11 | 103 | 7 | 181 | 1 | 12 | 3 | 21 | 72 | 9 |
| | 7 | 0 | 104 | 10 | 183 | 2 | 13 | 0 | 10 | 73 | 6 |
| | 7 | 1 | 106 | 0 | 185 | 4 | 13 | 1 | 0 | 74 | 4 |
| | 7 | 2 | 107 | 3 | 187 | 5 | 13 | 1 | 17 | 75 | 1 |
| | 7 | 3 | 108 | 7 | 189 | 7 | 13 | 2 | 7 | 75 | 19 |
| 8 0 | 4 | 11 | 75 | 2 | 131 | 4 | 9 | 1 | 16 | 52 | 12 |
| | 5 | 0 | 76 | 6 | 133 | 6 | 9 | 2 | 6 | 53 | 10 |
| | 5 | 1 | 77 | 9 | 135 | 7 | 9 | 2 | 23 | 54 | 7 |
| | 5 | 2 | 78 | 13 | 138 | 1 | 8 | 3 | 13 | 55 | 5 |
| | 5 | 3 | 80 | 3 | 140 | 8 | 10 | 0 | 3 | 56 | 3 |
| | 5 | 4 | 81 | 7 | 142 | D | 10 | 0 | 21 | 57 | 10 |
| | 0 F | 5 | 82 | 11 | 144 | 1 | 10 | 1 | 11 | 01 | 19 |
| | 0 | 6 | 84 | 1 | 147 | L | 10 | 20 | 10 | 08 | 14 |
| | 0 | 7 | 85 | 4 | 149 | 2 | 10 | 20 | 18 | 09 | 14 |
| | e e | 8 | 00 | 10 | 101 | 2 | 10 | 0 | 90 | 61 | 10 |
| | 5 | 10 | 80 | 12 | 150 | 0 | 11 | 0 | 16 | 62 | 8 |
| | 5 | 11 | 00 | 8 | 159 | 2 | 11 | 1 | 10 | 62 | 6 |
| | 6 | -0 | 01 | 0 | 160 | 8 | 11 | 1 | 23 | 64 | 8 |
| 1 | | | - 01 | | | | | | 10 | | |

| | TABLE VIWEIGHT OF LIVE CATTLE BY MEASUREMENT. 87 | | | | | | | | | | | | | |
|---------|--|------|-------------|---------------|-------|----------------|-------|------|------|-------|------|--|--|--|
| Girth. | Len | gth. | Imp Stor | erial 1es. | Smith | hfield nes, | | Cwta | L ` | Scor | res, | | | |
| Ft. In. | Ft. | In. | Sts. | Lbs. | Sts. | Lbs. | Cwts. | Qrs. | Lbs. | Scs. | Lbs. | | | |
| 8 0 | 6 | 1 | 92 | 13 | 162 | 5 | 11 | 2 | 13 | 65 | 1 | | | |
| | 6 | 2 | 94 | 3 | 164 | 7 | 11 | 3 | 3 | 65 | 19 | | | |
| | 6 | 3 | 95 | 7 | 167 | 1 | 11 | 8 | 21 | 66 | 17 | | | |
| | 6 | 4 | 96 | 11 | 169 | 3 | 12 | 0 | 11 | 67 | 15 | | | |
| | 6 | 5 | 98 | 1 | 171 | 5 | 12 | 1 | 1 | 68 | 13 | | | |
| | 6 | 6 | 99 | 4 | 173 | 6 | 12 | 1 | 18 | 69 | 10 | | | |
| | 6 | 7 | 100 | 8 | 176 | 0 | 12 | 2 | 8 | 70 | 8 | | | |
| | 6 | 8 | 101 | 12 | 178 | 2 | 12 | 2 | 26 | 71. | 6 | | | |
| | 6 | 9 | 103 | 2 | 180 | 4 | 12 | 3 | 16 | 72 | 4 | | | |
| | 6 | 10 | 104 | 6 | 182 | 6 | 13 | 0 | 6 | 73 | 2 | | | |
| | 6 | 11 | 105 | 10 | 185 | 0 | 13 | 0 | 24 | 74 | 0 | | | |
| | 7 | 0 | 106 | 13 | 187 | 1 | 13 | 1 | 13 | 74 | 17 | | | |
| | 7 | 1 | 108 | 3 | 189 | 3 | 13 | 2 | 3 | 75 | 15 | | | |
| | 7 | 2 | 109 | 7 | 191 | 5 | 13 | 2 | 21 | 76 | 13 | | | |
| | 7 | 3 | 110 | 11 | 193 | 7 | 13 | 3 | 11 | 77 | 11 | | | |
| | 7 | 4 | 112 | 1 | 196 | 1 | 14 | 0 | 1 | 78 | 9 | | | |
| 8 1 | 5 | 0 | 78 | 0 | 136 | 4 | 9 | 3 | 0 | 54 | 12 | | | |
| | 5 | 1 | 79 | 4 | 138 | 6 | 9 | 3 | 18 | 55 | 10 | | | |
| | 5 | 2 | 80 | 8 | 141 | 0 | 10 | 0 | . 8 | 56 | 8 | | | |
| | 5 | 3 | 81 | 13 | 143 | 3 | 10 | 0 | 27 | 57 | 7 | | | |
| | 5 | 4 | 83 | 3 | 145 | 5 | 10 | 1 | 17 | 58 | 5 | | | |
| | 5 | 5 | 84 | 7 | 147 | 7 | 10 | 2 | 7 | 59 | 8 | | | |
| | 5 | 6 | 85 | 11 | 150 | 1 | 10 | 2 | 25 | 60 | 1 | | | |
| | 5 | 7 | 87 | 1 | 152 | 3 | 10 | 3 | 15 | 60 | 19 | | | |
| | 5 | 8 | 88 | 6 | 154 | 6 | 11 | 0 | 6 | 61 | 18 | | | |
| | 6 | 9 | 89 | 10 | 157 | 0 | 11 | 0 | 24 | 62 | 16 | | | |
| | 10 | 10 | 91 | 0 | 159 | 2 | 11 | 1 | 14 | 63 | 14 | | | |
| | 5 | 11 | 92 | 4 | 161 | 4 | 11 | 2 | 4 | 64 | 12 | | | |
| | 6 | 0 | 93 | 8 | 163 | 6 | 11 | 2 | 22 | 65 | 10 | | | |
| | 6 | 1 | 94 | 13 | 166 | 1 | 11 | 3 | 13 | 66 | 9 | | | |
| | 6 | 2 | 96 | 3 | 168 | 8 | 12 | 0 | 3 | 67 | 7 | | | |
| | 6 | 3 | 97 | 7 | 170 | 5 | 12 | 0 | 21 | 68 | D | | | |
| | 6 | 4 | 98 | 11 | 172 | 7 | 12 | 1 | 11 | 69 | 3 | | | |
| | 6 | 5 | 100 | 1 | 175 | 1 | 12 | 2 | 1 | 70 | 1 | | | |
| | 6 | 6 | 101 | 6 | 177 | 4 | 12 | 2 | 20 | 71 | 10 | | | |
| | 6 | 7 | 102 | 10 | 179 | 6 | 12 | 3 | 10 | . 71 | 16 | | | |
| | 6 | 8 | 104 | 0 | 182 | 0 | 13 | 0 | 0 | 12 | 16 | | | |
| | 6 | 9 | 105 | 4 | 184 | 2 | 13 | 0 | 18 | 73 | 14 | | | |
| | 6 | 10 | 106 | 8 | 186 | * | 13 | 1 | 8 | 14 | 12 | | | |
| | 6 | 11 | 107 | 13 | 188 | 1 | 13 | 1 | 27 | 10 | 11 | | | |
| | 7 | 0 | 109 | 3 | 191 | 1 | 13 | 2 | 17 | 10 | 0 | | | |
| | 17 | 1 | 110 | 7 | 193 | 3 | 13 | 3 | 05 | 1 110 | - | | | |
| | 11 | 2 | 111 | 11 | 195 | 0 | 13 | 3 | 20 | 10 | 0 | | | |
| | 17 | 3 | 113 | 1 | 197 | 7 | 14 | 1 | 10 | 1 80 | 0 | | | |
| | 1 1 | 4 | 114 | 0 | 200 | 2 | 1.14 | T | 0 | 00 | 4 | | | |

| 88 TABLE VIWEIGHT OF LIVE CATTLE BY MEASUREMENT. | | | | | | | | | | | | | |
|--|----------|----------|-------------|---------------|-------------|----------------|------------|----------|--------------|------------|-----------|--|--|
| Girth. | Lei | ngth. | Imp Stor | erial ucs. | Smit Sto | hfield acs. | | Cwt | | Scot | res. | | |
| Ft. In. 8 1 | Ft. 7 | In. 5 | Sts. 115 | Lbs. 10 | Sta. 202 | Lbs. | Cwta 14 | Qrs 1 | . Lbs. 24 | Ses. 81 | Lbs, 0 | | |
| 8 2 | Б | 0 | 79 | 9 | 139 | 8 | 9 | 3 | 23 | 55 | 15 | | |
| | 5 | 1 | 80 | 13 | 141 | δ | 10 | 0 | 13 | 56 | 13 | | |
| ł | 5 | 2 | 82 | 4 | 144 | 0 | 10 | 1 | 4 | 57 | 12 | | |
| | 0 | 3 | 83 | 10 | 140 | Z | 10 | 1 | 19 | 50 | 10 | | |
| | 5 | 14 K | 98 | 10 | 120 | 7 | 10 | 8 | 10 | 60 | 17 | | |
| | 5 | 6 | 87 | 8 | 159 | 0 | 10 | 3 | 22 | 61 | Å | | |
| | 5 | 7 | 88 | 13 | 155 | 5 | 11 | 0 | 13 | 62 | 5 | | |
| | 5 | 8 | 90 | 3 | 157 | 7 | 11 | i. | 3 | 63 | 3 | | |
| | 5 | 9 | 91 | 8 | 160 | 2 | 11 | ĩ | 22 | 64 | 2 | | |
| | 5 | 10 | 92 | 12 | 162 | 4 | 11 | 2 | 12 | 65 | 0 | | |
| | 5 | 11 | 94 | 3 | 164 | 7 | 11 | 3 | 3 | 65 | 19 | | |
| | 6 | 0 | 95 | 8 | 167 | 2 | 11 | 3 | 22 | 66 | 18 | | |
| | 6 | 1 | 96 | 12 | 169 | 4 | 12 | 0 | 12 | 67 | 16 | | |
| | 6 | 2 | 98 | 8 | 171 | 7 | 12 | 1 | 3 | 68 | 15 | | |
| | 6 | 3 | 99 | 7 | 174 | 1 | 12 | 1 | 21 | 69 | 13 | | |
| | 6 | 4 | 100 | 12 | 176 | 4 | 12 | 2 | 12 | 70 | 12 | | |
| | 0 | 0 | 102 | 2 | 101 | 8 | 12 | 0 | 2 | 71 | 10 | | |
| | 6 | 7 | 103 | 19 | 189 | 4 | 12 | 0 | 12 | 73 | 8 | | |
| | 6 | 8 | 106 | 2 | 185 | R | 19 | Ť | 2 | 74 | ß | | |
| | 6 | 9 | 107 | 7 | 188 | 1 | 13 | î | 21 | 75 | 5 | | |
| | 6 | 10 | 108 | 11 | 190 | 3 | 13 | 2 | 11 | 76 | 3 | | |
| | в | 11 | 110 | 2 | 192 | 6 | 13 | 3 | 2 | 77 | 2 | | |
| | 7 | 0 | 111 | 6 | 195 | 0 | 13 | 3 | 20 | 78 | 0 | | |
| | 7 | 1 | 112 | 11 | 197 | 3 | 14 | 0 | 11 | 78 | 19 | | |
| | 7 | 2 | 114 | 2 | 199 | 6 | 14 | 1 | 2 | 79 | 18 | | |
| | 7 | 3 | 115 | 6 | 202 | 0 | 14 | 1 | 20 | 80 | 16 | | |
| | 7 | 4 | 116 | 11 | 204 | 3 | 14 | 2 | 11 | 81 | 15 | | |
| | 7 | D | 118 | 1 | 206 | 5 | 14 | 3 | 1 | 82 | 13 | | |
| | ' | 0 | 119 | 0 | 209 | 0 | 14 | 3 | 20 | 80 | 13 | | |
| 8 3 | 5 | 1 | 82 | 8 | 144 | 4 | 10 | 1 | 8 | 57 | 16 | | |
| | 5 | 2 | 83 | 13 | 146 | 7 | 10 | 1 | 27 | 58 | 15 | | |
| | 5 | 8 | 85 | 4 | 149 | 2 | 10 | 2 | 18 | 59 | 14 | | |
| | 0 | 4 | 86 | 9 | 151 | Б | 10 | 3 | 9 | 60 | 13 | | |
| | 5 | 0 | 88 | 0 | 154 | 0 | 11 | 0 | 0 | 61 | 12 | | |
| | 5 | 7 | 89 | 10 | 106 | 3 | 11 | 0 | 19 | 02 | 10 | | |
| | 5 | 8 | 02 | 10 | 161 | 1 | 11 | 0 | 10 | 84 | 0 | | |
| | 5 | 9 | 0.3 | B | 163 | 4 | 11 | 20 | 20 | 85 | 8 | | |
| | 5 | 10 | 04 | 111 | 165 | 7 | 11 | 3 | 11 | 66 | 7 | | |
| | 5 | ii | 96 | 2 | 168 | 2 | 12 | 0 | 2 | 67 | 6 | | |
| | 6 | 0 | 97 | 7 | 170 | 5 | 12 | 0 | 21 | 68 | 5 | | |
| | | | | | | | | | | | | | |

| | TABLE VIWEIGHT OF LIVE CATTLE BY MEASUREMENT. 89 | | | | | | | | | | | | |
|---------|--|------|------|---------------|---------------|----------------|----|-----|------|------|------|--|--|
| Girth. | Len | gth. | Impe | erial nes. | Smith Stor | ifield ies. | | Cwt | 8. | Scor | res. | | |
| Ft. In. | Ft. | In. | Sts. | Lhs. | Sts. | Lbs. | | Qrs | Lbs. | Scs. | Lbs. | | |
| 8 3 | 6 | 1 | 98 | 12 | 173 | 0 | 12 | 1 | 12 | 69 | 4 | | |
| | 6 | 2 | 100 | 3 | 175 | 3 | 12 | 2 | 3 | 70 | 3 | | |
| | 6 | 3 | 101 | 8 | 177 | 6 | 12 | 2 | 22 | 71 | 2 | | |
| | 6 | 4 | 102 | 13 | 180 | 1 | 12 | 3 | 13 | 72 | 1 | | |
| | 6 | 5 | 104 | 4 | 182 | 4 | 13 | 0 | 4 | 73 | 0 | | |
| | .6 | 6 | 105 | 9 | 184 | 7 | 13 | 0 | 23 | 73 | 19 | | |
| | 6 | 7 | 107 | 0 | 187 | 2 | 13 | I | 14 | 74 | 18 | | |
| | 6 | 8 | 108 | 5 | 189 | 5 | 13 | 2 | 5 | 75 | 17 | | |
| | 6 | 9 | 109 | 10 | 192 | 0 | 13 | 2 | 24 | 76 | 16 | | |
| | 6 | 10 | 111 | 1 | 194 | 3 | 13 | 3 | 15 | 77 | 15 | | |
| | 6 | 11 | 112 | 6 | 196 | 5 | 14 | 0 | 6 | 78 | 14 | | |
| | 7 | 0 | 113 | 10 | 199 | 0 | 14 | 0 | 24 | 79 | 12 | | |
| | 7 | 1 | 115 | 1 | 201 | 3 | 14 | 1 | 15 | 80 | 11 | | |
| | 7 | 2 | 116 | ê | 203 | 6 | 14 | 2 | 6 | 81 | 10 | | |
| | 17 | 2 | 117 | 11 | 206 | 1 | 14 | 2 | 25 | 82 | 0 | | |
| | 17 | 4 | 110 | 9 | 208 | â | 14 | 3 | 16 | 83 | 8 | | |
| | - | 5 | 120 | 17 | 210 | 7 | 15 | 0 | 10 | 84 | 0 77 | | |
| | - | 0 | 101 | 10 | 019 | 0 | 15 | 0 | 00 | OT | 0 | | |
| | - | 7 | 100 | 12 | 915 | n n | 10 | 1 | 17 | 00 | 0 | | |
| | | * | 120 | 0 | 210 | 0 | 10 | T | 11 | 00 | 0 | | |
| 0 1 | | | 04 | | 147 | | 10 | 0 | | 50 | 0 | | |
| 0 2 | 0 | 0 | 01 | 2 | 140 | 2 17 | 10 | 20 | 90 | 50 | 10 | | |
| | 0 | 4 | 00 | 0 | 120 | 1 | 10 | 20 | 10 | 00 | 10 | | |
| | 0 | 0 | 00 | 1 | 152 | 0 | 10 | 0 | 10 | 00 | 10 | | |
| | 0 | 2 | 00 | 11 | 102 | 0 | 11 | 0 | 0 | 01 | 10 | | |
| | 0 | 0 | 00 | 11 | 101 | 1 | 11 | 0 | 20 | 02 | 17 | | |
| | D | 0 | 91 | 0 | 109 | 0 | 11 | 1 | 17 | 03 | 17 | | |
| | 0 | 1 | 92 | 8 | 102 | 0 | 11 | 2 | 0 | 04 | 10 | | |
| | -0 | 8 | 93 | 13 | 104 | 3 | 11 | 2 | 27 | 60 | 10 | | |
| | 0 | 9 | 90 | 0 | 100 | 1 | 11 | 3 | 19 | 00 | 10 | | |
| | D | 10 | 96 | 10 | 169 | 2 | 12 | 0 | 10 | 67 | 14 | | |
| | 0 | 11 | 98 | 1 | 171 | D | 12 | 1 | 1 | 68 | 13 | | |
| | 6 | 0 | 100 | 7 | 174 | I | 12 | 1 | 21 | 69 | 13 | | |
| | 6 | 1 | 100 | 12 | 176 | 4 | 12 | 2 | 12 | 70 | 12 | | |
| | 0 | 2 | 102 | . 3 | 178 | 7 | 12 | 0 | 3 | 71 | 11 | | |
| | 6 | 3 | 103 | 9 | 181 | 3 | 12 | 3 | 23 | 72 | 11 | | |
| | 6 | 4 | 105 | 0 | 183 | 0 | 13 | 0 | 14 | 73 | 10 | | |
| | 6 | 5 | 106 | 5 | 186 | 1 | 13 | 1 | 5 | 74 | 9 | | |
| | 6 | 6 | 107 | 11 | 188 | 0 | 13 | 1 | 25 | 75 | 9 | | |
| | 6 | 7 | 109 | 2 | 191 | 0 | 13 | 2 | 16 | 76 | 8 | | |
| | 6 | 8 | 110 | -7 | 193 | 3 | 13 | 3 | 7 | 77 | 7 | | |
| | 6 | 9 | 111 | 18 | 195 | 7 | 13 | 3 | 27 | 78 | 7 | | |
| | 6 | 10 | 113 | 4 | 198 | 2 | 14 | 0 | 18 | 79 | 6 | | |
| | 6 | 11 | 114 | 9 | 200 | 5 | 14 | 1 | 9 | 80 | 5 | | |
| | 7 | 0 | 116 | 1 | 203 | 1 | 14 | 2 | 1 | 81 | 5 | | |
| | 7 | 1 | 117 | 6 | 205 | 4 | 14 | 2 | 20 | 82 | 4 | | |
| | 7 | 2 | 118 | 11 | 207 | 7 | 14 | 8 | 11 | 83 | 3 | | |

90

TABLE VI .- WEIGHT OF LIVE CATTLE BY MEASUREMENT.

| Girth. | Leap | gth. | Imp | erial nes. | Smith | field es. | | Cwta | | Seor | es. |
|---------|------|------|------|---------------|-------|--------------|-------|------|------|------|-----|
| Ft. In. | Ft. | In. | Sts. | Lbs. | Sts. | Lbs. | Cwts. | Ors | Lbs. | Scs. | Lhs |
| 8 4 | 7 | 3 | 120 | 3 | 210 | 3 | 15 | 0 | 3 | 84 | 3 |
| | 7 | 4 | 121 | 8 | 212 | 6 | 15 | Ő | 22 | 85 | 2 |
| | 7 | 5 | 122 | 13 | 215 | 1 | 15 | 1 | 13 | 86 | ī |
| | 7 | 6 | 124 | 5 | 217 | 5 | 15 | 2 | 5 | 87 | î |
| | 7 | 7 | 125 | 10 | 220 | õ | 15 | 2 | 24 | 88 | õ |
| | 7 | 8 | 127 | 1 | 222 | 3 | 15 | 3 | 15 | 88 | 19 |
| | | ~ | | - | | | | | 10 | 00 | 10 |
| 8 5 | 5 | 2 | 87 | 0 | 152 | 7 | 10 | 3 | 19 | 61 | 3 |
| | 5 | 3 | 88 | 11 | 155 | 3 | 11 | 0 | 11 | 62 | 3 |
| | 5 | 4 | 90 | 3 | 157 | 7 | 11 | 1 | 3 | 63 | 3 |
| | 5 | 5 | 91 | 9 | 160 | 3 | 11 | 1 | 23 | 64 | 3 |
| | 5 | 6 | 93 | 0 | 162 | 6 | 11 | 2 | 14 | 65 | 2 |
| | 5 | 7 | 94 | 6 | 165 | 2 | 11 | 3 | 6 | 66 | 2 |
| | 5 | 8 | 95 | 12 | 167 | 6 | 11 | 3 | 26 | 67 | 2 |
| | 5 | 9 | 97 | 3 | 170 | 1 | 12 | 0 | 17 | 68 | 1 |
| | 5 | 10 | 98 | 9 | 172 | 5 | 12 | 1 | 9 | 69 | 1 |
| | 5 | 11 | 100 | 1 | 175 | 1 | 12 | 2 | 1 | 70 | 1 |
| | 6 | 0 | 101 | 7 | 177 | 5 | 12 | 2 | 21 | 71 | 1 |
| | 6 | 1 | 102 | 12 | 180 | 0 | 12 | 3 | 12 | 72 | 0 |
| | 6 | 2 | 104 | 4 | 182 | 4 | 13 | 0 | 4 | 73 | 0 |
| | 6 | 3 | 105 | 10 | 185 | õ | 13 | 0 | 24 | 74 | Ő |
| | 6 | 4 | 107 | 2 | 187 | 4 | 13 | 1 | 16 | 75 | 0 |
| | 6 | 5 | 108 | 7 | 189 | 7 | 13 | 2 | 7 | 75 | 19 |
| | 6 | 6 | 109 | 13 | 192 | 3 | 18 | 2 | 27 | 76 | 19 |
| | 6 | 7 | 111 | 5 | 194 | 7 | 13 | 3 | 19 | 77 | 19 |
| | 6 | 8 | 112 | 10 | 197 | 2 | 14 | 0 | 10 | 78 | 18 |
| | 6 | 9 | 114 | 2 | 199 | R | 14 | ĩ | 2 | 79 | 18 |
| | 6 | 10 | 115 | 8 | 202 | 2 | 14 | î. | 22 | 80 | 18 |
| | 6 | 11 | 117 | 0 | 204 | ñ | 14 | 2 | 14 | 81 | 18 |
| | 7 | 0 | 118 | 5 | 207 | 1 | 14 | 3 | 5 | 82 | 17 |
| | 7 | 1 | 119 | 11 | 209 | 5 | 14 | 3 | 25 | 83 | 17 |
| | 7 | 0 | 191 | 9 | 219 | 1 | 15 | 0 | 17 | 84 | 17 |
| | 7 | 3 | 122 | 9 | 214 | 5 | 15 | 1 | 9 | 85 | 17 |
| | 7 | 4 | 124 | 0 | 217 | 0 | 15 | 2 | 0 | 86 | 16 |
| | 7 | 15 | 125 | 6 | 219 | 4 | 15 | 2 | 20 | 87 | 16 |
| | 7 | 6 | 198 | 19 | 200 | 0 | 15 | 9 | 19 | 99 | 16 |
| | 7 | 17 | 120 | 4 | 224 | 4 | 18 | 0 | 4 | 80 | 16 |
| | 7 | 0 | 190 | 0 | 996 | 17 | 10 | 0 | 00 | 00 | 15 |
| | 7 | 9 | 131 | 1 | 229 | 3 | 16 | 1 | 15 | 91 | 15 |
| | | | 101 | | | 0 | | | | 01 | |
| 8 6 | 5 | 2 | 89 | 2 | 156 | 0 | 11 | 0 | 16 | . 62 | 8 |
| | 5 | 3 | 90 | 8 | 158 | 4 | 11 | 1 | 8 | 63 | 8 |
| | 5 | 4 | 92 | 0 | 161 | 0 | 11 | 2 | 0 | 64 | 8 |
| | 5 | 5 | 93 | 6 | 163 | 4 | 11 | 2 | 20 | 65 | 8 |
| | 5 | 6 | 94 | 12 | 166 | 0 | 11 | 3 | 12 | 66 | 8 |
| | 5 | 7 | .96 | 4 | 168 | 4 | 12 | 0 | 4 | 67 | 8 |

| | TABL | E VI | -WEIG | HT OF | LIVE C | ATTL | E BY | MEAL | SUREM | GENT. | 91 |
|---------|------|------|-------|---------------|---------------|--------------|------|------|-------|-------|------|
| Girth. | Len | gth, | Impo | erial nes. | Smith Ston | field es. | | Cwts | ı. | Scor | ·es. |
| Ft. In. | Ft. | In. | Sts. | Lbs. | Sts. | Lbs. | Cwts | Qrs. | Lbs | Scs. | Lbs. |
| 8 6 | 5 | 8 | 97 | 10 | 171 | 0 | 12 | 0 | 24 | 68 | 8 |
| | 5 | 9 | 99 | 3 | 173 | 5 | 12 | 1 | 17 | 69 | 9 |
| | 5 | 10 | 100 | 9 | 176 | 1 | 12 | 2 | 9 | 70 | 9 |
| | 5 | 11 | 102 | 1 | 178 | 5 | 12 | 3 | 1 | 71 | 9 |
| | 6 | 0 | 103 | 7 | 181 | 1 | 12 | 3 | 21 | 72 | 9 |
| | 6 | 1 | 104 | 13 | 183 | δ | 13 | 0 | 13 | 73 | 9 |
| | 6 | 2 | 106 | 5 | 186 | 1 | 13 | 1 | 5 | 74 | 9 |
| | 6 | 3 | 107 | 11 | 188 | õ | 13 | 1 | 25 | 75 | 9 |
| | 6 | 4 | 109 | 3 | 191 | 1 | 13 | 2 | 17 | 76 | 9 |
| | 6 | 5 | 110 | 10 | 193 | 6 | 13 | 3 | 10 | 77 | 10 |
| | 6 | 6 | 112 | 2 | 196 | 2 | 14 | 0 | 2 | 78 | 10 |
| | 6 | 7 | 113 | 8 | 198 | 6 | 14 | 0 | 22 | 79 | 10 |
| | 6 | 8 | 115 | 0 | 201 | 2 | 14 | 1 | 14 | 80 | 10 |
| | 6 | 9 | 116 | 6 | 203 | 6 | 14 | 2 | 6 | 81 | 10 |
| | 6 | 10 | 117 | 12 | 206 | 2 | 14 | 2 | 26 | 82 | 10 |
| | 6 | 11 | 119 | 4 | 208 | 6 | 14 | 3 | 18 | 83 | 10 |
| | 7 | 0 | 120 | 10 . | 211 | 2 | 15 | 0 | 10 | 84 | 10 |
| | 7 | 1 | 122 | 3 | 213 | 7 | 15 | 1 | 3 | 85 | 11 |
| | 7 | 2 | 123 | 9 | 216 | 3 | 15 | 1 | 23 | 86 | 11 |
| | 7 | 3 | 125 | 1 | 218 | 7 | 15 | 2 | 15 | 87 | 11 |
| | 7 | 4 | 126 | 7 | 221 | 3 | 15 | 3 | 7 | 88 | 11 |
| | 7 | 5 | 127 | 13 | 223 | 7 | 15 | 3 | 27 | 89 | 11 |
| | 7 | 6 | 129 | 5 | 226 | 3 | 16 | 0 | 19 | 90 | 11 |
| | 7 | 7 | 130 | 11 | 228 | 7 | 16 | 1 | 11 | 91 | 11 |
| | 7 | 8 | 132 | 3 | 231 | 3 | 16 | 2 | 3 | 92 | 11 |
| | 7 | 9 | 133 | 10 | 234 | 0 | 16 | 2 | 24 | 93 | 12 |
| | 7 | 10 | 135 | 2 | 236 | 4 | 16 | 3 | 16 | 94 | 12 |
| 8 7 | 5 | 8 | 92 | 5 | 161 | 5 | 111 | 2 | 5 | 64 | 13 |
| | 5 | 4 | 93 | 11 | 164 | 1 | 11 | 2 | 25 | 65 | 13 . |
| | 5 | 5 | 95 | 4 | 166 | 6 | 11 | 3 | 18 | 66 | 14 |
| | 5 | 6 | 96 | 10 | 169 | 2 | 12 | 0 | 10 | 67 | 14 |
| | 5 | 7 | 98 | 3 | 171 | 7 | 12 | 1 | 8 | 68 | 15 |
| | 5 | 8 | 99 | 9 | 174 | 3 | 12 | 1 | 23 | 69 | 15 |
| | 5 | 9 | 101 | 2 | 177 | 0 | 12 | 2 | 16 | 70 | 16 |
| | 5 | 10 | 102 | 8 | 179 | 4 | 12 | 3 | 8 | 71 | 16 |
| | ő | 11 | 104 | 1 | 182 | 1 | 13 | 0 | 1 | 72 | 17 |
| | 6 | 0 | 105 | 7 | 184 | 5 | 13 | 0 | 21 | 73 | 17 |
| | 6 | 1 | 107 | 0 | 187 | 2 | 13 | 1 | 14 | 74 | 18 |
| | 6 | 2 | 108 | 7 | 189 | 7 | 13 | 2 | 7 | 75 | 18 |
| | 6 | 8 | 109 | 13 | 192 | 3 | 13 | 2 | 27 | 76 | 19 |
| | 6 | 4 | 111 | 6 | 195 | 0 | 13 | 3 | 20 | 78 | 0 |
| | 6 | 5 | 112 | 12 | 197 | 4 | 14 | 0 | 12 | 79 | 0 |
| | 6 | 6 | 114 | 5 | 200 | 1 | 14 | 1 | 5 | 80 | 1 |
| | 6 | 77 | 115 | 11 | 202 | 5 | 14 | 1 | 25 | 81 | 1 |
| | 6 | 8 | 117 | 4 | 205 | 2 | 14 | 2 | 18 | 82 | 2 |
| | | | | | | | | | | | |

| 92 | TABLE | vi | -WEIGH | T OF | LIVE C. | ATTLE | BY 3 | TEAS | UREM | ENT. | |
|---------|-------|------|--------|---------------|---------|--------------|-------|------|------|-------|------|
| Girth. | Len | gth. | Impo | erial ics. | Smith | field es. | | Cwts | | Scor | es. |
| Ft. In. | Ft. | In. | Sts. | Lbs. | Sts. | Lbs. | Cwts. | Qrs. | Lbs. | St:8. | Lbs. |
| 8 7 | 6 | 9 | 118 | 10 | 207 | 6 | 14 | 3 | 10 | 83 | 2 |
| | 6 | 10 | 120 | 3 | 210 | 3 | 15 | 0 | 3 | 84 | 3 |
| | 6 | 11 | 121 | 9 | 212 | 7 | 15 | 0 | 23 | . 85 | 3 |
| | 7 | 0 | 123 | 2 | 215 | 4 | 15 | 1 | 16 | 86 | 4 |
| | 7 | 1 | 124 | 8 | 218 | 0 | 15 | 2 | 8 | 87 | 4 |
| | 7 | 2 | 126 | 1 | 220 | 5 | 15 | 3 | 1 | 88 | 5 |
| | 7 | 3 | 127 | 7 | 223 | 1 | 15 | 3 | 21 | 89 | 5 |
| | 7 | 4 | 129 | 0 - | 225 | 6 | 16 | 0 | 14 | 90 | 6 |
| | 7 | 5 | 130 | G | 228 | 2 | 16 | 1 | 6 | 91 | 6 |
| | 7 | 6 | 131 | 13 | 230 | 7 | 16 | 1 | 27 | 92 | 7 |
| | 7 | 7 | 133 | 5 | 233 | 3 | 16 | 2 | 19 | 93 | 7 |
| | 7 | 8 | 134 | 12 | 236 | 0 | 16 | 3 | 12 | 94 | 8 |
| | 7 | 9 | 136 | 4 | 238 | 4 | 17 | 0 | 4 | 95 | 8 |
| | 7 | 10 | 137 | 11 | 241 | 1 | 17 | 0 | 25 | 96 | 9 |
| | 7 | 11 | 139 | 3 | 243 | 5 | 17 | 1 | 17 | 97 | 9 |
| 8 8 | 5 | 3 | 94 | 2 | 164 | 6 | 11 | 3 | 2 | 65 | 18 |
| | D | 4 | 95 | 8 | 167 | 3 | 11 | 3 | 23 | 66 | 19 |
| | 5 | 5 | 97 | 2 | 170 | 0 | 12 | 0 | 16 | 68 | 0 |
| | 5 | 6 | 98 | 9 | 172 | 5 | 12 | - 1 | 9 | 69 | 1 |
| | 5 | 7 | 100 | 2 | 175 | 2 | 12 | 2 | 2 | 70 | 2 |
| | 5 | 8 | 101 | 9 | 177 | 7 | 12 | 2 | 23 | 71 | 3 |
| | 0 | 9 | 103 | 2 | 180 | 4 | 12 | 3 | 16 | 72 | 4 |
| | D | 10 | 104 | 8 | 183 | 0 | 13 | 0 | 8 | 78 | 4 |
| | 0 | 11 | 100 | 1 | 180 | 0 | 13 | 1 | 1 | 74 | 0 |
| | 6 | 0 | 107 | 8 | 188 | 2 | 13 | 1 | 22 | 75 | 0 |
| | 6 | 1 | 109 | 1 | 190 | 3 | 13 | 2 | 15 | 70 | 1 |
| | 6 | 2 | 110 | 8 | 193 | 4 | 13 | 3 | 8 | 17 | 8 |
| | 6 | 3 | 112 | 1 | 190 | 1 | 1+ | 0 | 1 | 18 | 10 |
| | 6 | 4 | 113 | 8 | 195 | 0 | 14 | 0 | 22 | 10 | 10 |
| | 6 | 5 | 115 | 1 | 201 | 0 | 14 | 1 | 10 | 80 | 10 |
| | 0 | 0 | 116 | 0 | 204 | 0 | 14 | 0 | 1 | 01 | 10 |
| | 0 | | 118 | 1 | 200 | 0 | 114 | 0 | 1 | 02 | 14 |
| | 0 | 0 | 119 | 1 | 209 | 27 | 12 | 0 | 15 | 84 | 15 |
| | e | 10 | 121 | 1 | 214 | 3 | 15 | 1 | 17 | 85 | 15 |
| | 0 | 11 | 194 | é | 217 | 0 | 15 | 2 | ò | 86 | 16 |
| | 1 m | 11 | 195 | 17 | 910 | 5 | 15 | 0 | 91 | 87 | 17 |
| | 1 0 | 1 | 120 | 0 | 000 | 0 | 15 | 2 | 14 | 88 | 18 |
| | 1 4 | 2 | 199 | 7 | 994 | 7 | 18 | 0 | 7 | 89 | 19 |
| | 1 7 | 2 | 120 | 0 | 227 | 4 | 16 | 1 | 0 | 91 | 0 |
| | 1 4 | 0 | 100 | 77 | 020 | 1 | 16 | 1 | 91 | 02 | 1 |
| | 1 7 | 5 | 199 | 0 | 099 | R | 16 | 0 | 14 | 03 | 2 |
| | 1 4 | R | 194 | 7 | 995 | 3 | 16 | 3 | 7 | 94 | 3 |
| | 1 4 | 7 | 194 | 0 | 238 | 0 | 17 | 0 | 0 | 95 | 4 |
| | 1 7 | 8 | 197 | 7 | 240 | 5 | 17 | 0 | 21 | 98 | 5 |
| | | 0 | 1 101 | | 1 220 | 0 | | 0 | | | |

| | TABLE VIWEIGHT OF LIVE CATTLE BY MEASUREMENT. 93 Girth, Length, Imperial Smithfield Cwts, Scores | | | | | | | | | | | | | |
|---------|--|------|------|---------------|-------|---------------|-------|------|-----|------|------|--|--|--|
| Girth. | Len | gth. | Impe | erial ics. | Smith | field ics. | | Cwts | l. | Scor | es. | | | |
| Ft. In. | Ft. | In. | Sts. | Lbs. | Sts. | Lbs. | Cwts. | Qrs | Lhs | Scs. | Lbs. | | | |
| 8 8 | 7 | 9 | 139 | 0 | 243 | 2 | 17 | 1 | 14 | 97 | 6 | | | |
| | 7 | 10 | 140 | 7 | 245 | 7 | 17 | 2 | 7 | 98 | 7 | | | |
| | 7 | 11 | 141 | 13 | 248 | 3 | 17 | 2 | 27 | 99 | 7 | | | |
| | 8 | 0 | 143 | 6 | 251 | 0 | 17 | 3 | 20 | 100 | 8 | | | |
| 8 0 | 5 | 4 | 97 | 7 | 170 | 5 | 12 | 0 | 91 | 89 | 5 | | | |
| 0.0 | 5 | 5 | 99 | ò | 173 | 2 | 12 | 1 | 14 | 69 | 6 | | | |
| | 5 | 6 | 100 | 7 | 175 | 77 | 12 | ô | 17 | 70 | 7 | | | |
| | 5 | 7 | 102 | i | 178 | 5 | 12 | 8 | i | 71 | ó | | | |
| | 5 | 8 | 103 | ŝ | 181 | 2 | 12 | 3 | 22 | 72 | 10 | | | |
| | 5 | 9 | 105 | 1 | 183 | 7 | 13 | 0 | 15 | 73 | 11 | | | |
| | 5 | 10 | 106 | 9 | 186 | 5 | 13 | 1 | 9 | 74 | 13 | | | |
| | 15 | 11 | 108 | 2 | 189 | 2 | 13 | 2 | 2 | 75 | 14 | | | |
| | 6 | 0 | 109 | 9 | 191 | 7 | 13 | 2 | 23 | 76 | 15 | | | |
| | 6 | 1 | 111 | 3 | 194 | 5 | 13 | 3 | 17 | 77 | 17 | | | |
| | 6 | 2 | 112 | 10 | 197 | 2 | 14 | 0 | 10 | 78 | 18 | | | |
| | 6 | 8 | 114 | 3 | 199 | 7 | 14 | ĩ | 3 | 79 | 19 | | | |
| | 6 | 4 | 115 | 11 | 202 | 5 | 14 | 1 | 25 | 81 | 1 | | | |
| | 6 | 5 | 117 | 4 | 205 | 2 | 14 | 2 | 18 | 82 | 2 | | | |
| | 6 | 6 | 118 | 11 | 207 | 7 | 14 | 3 | 11 | 83 | ŝ | | | |
| | 6 | 7 | 120 | 5 | 210 | 5 | 15 | 0 | 5 | 84 | 5 | | | |
| | 6 | 8 | 121 | 12 | 213 | 2 | 15 | 0 | 26 | 85 | 6 | | | |
| | 6 | 9 | 123 | 5 | 215 | 7 | 15 | 1 | 19 | 86 | 7 | | | |
| | 6 | 10 | 124 | 13 | 218 | 5 | 15 | 2 | 13 | 87 | 9 | | | |
| | 6 | 11 | 126 | 6 | 221 | 2 | 15 | 3 | 6 | 88 | 10 | | | |
| | 7 | 0 | 127 | 13 | 223 | 7 | 15 | 3 | 27 | 89 | 11 | | | |
| | 7 | 1 | 129 | 7 | 226 | 5 | 16 | 0 | 21 | 90 | 18 | | | |
| | 7 | 2 | 131 | 0 | 229 | 2 | 16 | 1 | 14 | 91 | 14 | | | |
| 0.5 | 7 | 3 | 132 | 7 | 231 | 7 | 16 | 2 | 7 | 92 | 15 | | | |
| | 7 | 4 | 134 | i | 234 | 5 | 16 | 3 | i | 93 | 17 | | | |
| | 7 | 5 | 135 | 8 | 237 | 2 | 16 | 3 | 22 | 94 | 18 | | | |
| | 7 | 6 | 137 | 1 | 239 | 7 | 17 | 0 | 15 | 95 | 19 | | | |
| | 7 | 7 | 138 | 9 | 242 | 5 | -17 | 1 | 9 | 97 | 1 | | | |
| | 7 | 8 | 140 | 2 | 245 | 2 | 17 | 2 | 2 | 98 | 2 | | | |
| | 7 | 9 | 141 | 9 | 247 | 7 | 17 | 2 | 23 | 99 | 3 | | | |
| | 7 | 10 | 143 | 3 | 250 | 5 | 17 | 3 | 17 | 100 | '5 | | | |
| | 7 | 11 | 144 | 10 | 253 | 2 | 18 | 0 | 10 | 101 | 6 | | | |
| | 8 | 0 | 146 | 3 | 255 | 7 | 18 | 1 | 3 | 102 | 7 | | | |
| | 8 | 1 | 147 | 11 | 258 | 5 | 18 | 1 | 25 | 103 | 9 | | | |
| 8 10 | 5 | 4 | 99 | 5 | 173 | 7 | 12 | 1 | 19 | 69 | 11 | | | |
| | 5 | 5 | 100 | 13 | 176 | 5 | 12 | 2 | 13 | 70 | 13 | | | |
| | 5 | 6 | 102 | 6 | 179 | 2 | 12 | 3 | 6 | 71 | 14 | | | |
| | 5 | 7 | 104 | 0 | 182 | 0 | 13 | 0 | 0 | 72 | 16 | | | |
| | 5 | 8 | 105 | 8 | 184 | 6 | 13 | 0 | 22 | 73 | 18 | | | |
| | 5 | 9 | 107 | 2 | 187 | 4 | 13 | 1 | 16 | 75 | 0 | | | |
| | | | | | G | | | | | | | | | |

| 94 | TABLE | vi.— | -WEIGH | T OF | LIVE C. | ATTLE | BY M | IEAS | UREM | ENT. | |
|---------|-------|------|--------|---------------|---------|---------------|-------|------|------|------|------|
| Girth. | Len | gth. | Impe | erial ies. | Smith | field ies. | | Cwts | | Scor | 108. |
| Ft. In. | Ft. | In | Sts. | Lbs. | Sts. | Lbs. | Cwts. | Qrs. | Lbs. | Scs. | Lbs. |
| 8 10 | 5 | 10 | 108 | 9 | 190 | 1 | 13 | 2 | 9 | 76 | 1 |
| | 5 | 11 | 110 | 3 | 192 | 7 | 13 | 3 | 3 | 77 | 3 |
| | 6 | 0 | 111 | 11 | 195 | 5 | 13 | 3 | 25 | 78 | 5 |
| | 6 | 1 | 113 | 5 | 198 | 3 | 14 | 0 | 19 | 79 | 7 |
| | 6 | 2 | 114 | 12 | 201 | 0 | 14 | 1 | 12 | 80 | 8 |
| | 6 | 3 | 116 | 6 | 203 | 6 | 14 | 2 | 6 | 81 | 10 |
| | 6 | 4 | 118 | 0 | 206 | 4 | 14 | 3 | 0 | 82 | 12 |
| | 6 | 5 | 119 | 7 | 209 | 1 | 14 | 3 | 21 | 83 | 13 |
| | 6 | 6 | 121 | 1 | 211 | 7 | 15 | 0 | 15 | 84 | 15 |
| | 6 | 7 | 122 | 9 | 214 | 5 | 15 | 1 | 9 | 85 | 17 |
| | 6 | 8 | 124 | 3 | 217 | 3 | 15 | 2 | 3 | 86 | 19 |
| | 6 | 9 | 125 | 10 | 220 | 0 | 15 | 2 | 24 | 88 | 0 |
| | 6 | 10 | 127 | 4 | 222 | 6 | 15 | 3 | 18 | 89 | 2 |
| 11.1 | 6 | 11 | 128 | 12 | 225 | 4 | 16 | 0 | 12 | 90 | 4 |
| | 7 | 0 | 130 | 6 | 228 | 2 | 16 | 1 | 6 | 91 | 6 |
| | 7 | 1 | 131 | 13 | 230 | 7 | 16 | 1 | 27 | 92 | 7 |
| | 7 | 2 | 133 | 7 | 233 | 5 | 16 | 2 | 21 | 93 | 9 |
| | 7 | 3 | 135 | 1 | 236 | 3 | 16 | 3 | 15 | 94 | 11 |
| | 17 | 4 | 136 | .8 | 239 | 1 | 17 | 0 | 9 | 95 | 13 |
| | 7 | 5 | 138 | 2 | 241 | 6 | 17 | 1 | 2 | 96 | 14 |
| | 7 | 6 | 139 | 10 | 244 | 4 | 17 | 1 | 24 | 97 | 16 |
| | 7 | 7 | 141 | 4 | 247 | 2 | 17 | 2 | 18 | 98 | 18 |
| | 7 | 8 | 142 | 11 | 249 | 7 | 17 | 3 | 11 | 99 | 19 |
| | 7 | 9 | 144 | 5 | 252 | 5 | 18 | 0 | 5 | 101 | 1 |
| | 7 | 10 | 145 | 13 | 255 | 3 | 18 | 0 | 27 | 102 | 3 |
| | 7 | 11 | 147 | 7 | 258 | 1 | 18 | 1 | 21 | 103 | 5 |
| | 8 | 0 | 149 | 0 | 260 | 6 | 18 | 2 | 14 | 104 | 6 |
| | 8 | 1 | 150 | 8 | 263 | 4 | 18 | 3 | 8 | 105 | 8 |
| | 8 | 2 | 152 | 2 | 266 | 2 | 19 | 0 | 2 | 106 | 10 |
| 8 11 | 5 | 5 | 102 | 11 | 179 | 7 | 12 | 3 | 11 | 71 | 19 |
| | 5 | 6 | 104 | 6 | 182 | 6 | 13 | 0 | 6 | 73 | 2 |
| | 5 | 7 | 106 | 0 | 185 | 4 | 13 | 1 | 0 | 74 | 4 |
| | 5 | 8 | 107 | 8 | 188 | 2 | 13 | 1 | 22 | 75 | 6 |
| | 5 | 9 | 109 | 2 | 191 | 0 | 13 | 2 | 16 | 76 | 8 |
| | 5 | 10 | 110 | 10 | 193 | 6 | 13 | 3 | 10 | 77 | 10 |
| | 5 | 11 | 112 | 4 | 196 | 4. | 14 | 0 | 4 | 78 | 12 |
| | 6 | 0 | 113 | 12 | 199 | 2 | 14 | 0 | 26 | 79 | 14 |
| | 6 | 1 | 115 | 7 | 202 | 1 | 14 | 1 | 21 | 80 | 17 |
| | 6 | 2 | 117 | 1 | 204 | 7 | 14 | 2 | 15 | 81 | 19 |
| | 6 | 3 | 118 | 9 | 207 | 5 | 14 | 3 | 9 | 83 | 1 |
| | 6 | 4 | 120 | 3 | - 210 | 3 | 15 | 0 | 3 | 84 | 3 |
| | 6 | 5 | 121 | 11 | 213 | 1 | 15 | 0 | 25 | 85 | 5 |
| | 6 | 6 | 123 | 5 | 215 | 7 | 15 | 1 | 19 | 86 | 7 |
| | 6 | 7 | 124 | 13 | 218 | 5 | 15 | 2 | 13 | 87 | 9 |
| 0.00 | 6 | 8 | 126 | 8 | 221 | . 4 | 15 | 3 | 8 | 88 | 12 |
| | | | | | | | | | | | |

| | TABLE VI.—WEIGHT OF LIVE CATTLE BY MEASUREMENT. 95 Girth. Length. Imperial Smithfield Stones. Stones. Cwts. Scores. | | | | | | | | | | | | | |
|---------|---|------|--------------|---------------|---------------|--------------|-------|------|------|-------|------|--|--|--|
| Girth. | Len | gth. | Impe Stor | erial tes. | Smith Ston | field es. | | Cwts | | Scor | ·cs. | | | |
| Ft. In. | Ft. | In. | Sts. | Lbs. | Sts. | Lbs. | Cwts. | QIS. | Lbs. | Scs. | Lbs. | | | |
| 8 11 | 6 | 9 | 128 | 2 | 224 | 2 | 16 | 0 | 2 | 89 | 14 | | | |
| | 6 | 10 | 129 | 10 | 227 | 0 | 16 | 0 | 24 | 90 | 16 | | | |
| | 6 | 11 | 131 | 4 | 229 | 6. | 16 | 1 | 18 | 91 | 18 | | | |
| | 7 | 0 | 132 | 12 | 232 | 4 | 16 | 2 | 12 | 93 | 0 | | | |
| | 7 | 1 | 134 | 6 | 235 | 2 | 16 | 3 | 6 | 94 | 2 | | | |
| | 7 | 2 | 136 | 0 | 238 | 0 | 17 | 0 | .1 | 95 | 5 | | | |
| | 7 | 3 | 137 | 9 | 240 | 7 | 17 | 0 | 25 | 96 | 7 | | | |
| | 7 | 4 | 139 | 3 | 243 | 5 | 17 | 1 | 17 | 97 | 9 | | | |
| | 17 | 5 | 140 | 11 | 246 | 3 | 17 | 2 | 11 | 98 | 11 | | | |
| | 17 | 6 | 142 | 5 | 249 | 1 | 17 | 3 | 5 | 99 | 13 | | | |
| | 17 | 7 | 143 | 13 | 251 | 7 | 17 | 3 | 27 | 100 | 15 | | | |
| | 17 | 8 | 145 | 7 | 254 | 0 | 18 | 0 | 21 | 101 | 17 | | | |
| | 17 | 9 | 147 | 1 | 257 | 8 | 18 | 1 | 15 | 102 | 19 | | | |
| | 17 | 10 | 148 | 10 | 260 | 20 | 18 | Z | 10 | 104 | 2 | | | |
| | 1 7 | 11 | 150 | 4 | 263 | 0 | 18 | 3 | 4 | 105 | 4 | | | |
| | 8 | 0 | 101 | 12 | 200 | 0 | 18 | 3 | 20 | 106 | 6 | | | |
| | 0 | 1 | 100 | 0 | 205 | 4 | 19 | 0 | 20 | 107 | 8 | | | |
| | 0 | 20 | 155 | 0 | 271 | 2 | 19 | 1 | 14 | 108 | 10 | | | |
| | 0 | . 0 | 100 | 0 | 212 | 0 | 19 | 2 | 0 | 109 | 13 | | | |
| 9 0 | 5 | 5 | 104 | 10 | 183 | 2 | 13 | 0 | 10 | 73 | 6 | | | |
| | 5 | 6 | 106 | 5 | 186 | 1 | 13 | 1 | 5 | 74 | 9 | | | |
| | 5 | 7 | 108 | 0 | 189 | 0 | 13 | 2 | 0 | 75 | 12 | | | |
| | 5 | 8 | 109 | 8 | 191 | 6 | 13 | 2 | 22 | 76 | 14 | | | |
| | 5 | 9 | 111 | 3 | 194 | 5 | 13 | 3 | 17 | 77 | 17 | | | |
| | 5 | 10 | 112 | 11 | 197 | 3 | 14 | 0 | 11 | 78 | 19 | | | |
| | 5 | 11 | 114 | 6 | 200 | 2 | 14 | 1 | 6 | 80 | 2 | | | |
| 19.00 | 6 | 0 | 116 | 0 | 203 | 0 | 14 | 2 | 0 | 81 | 4 | | | |
| | 6 | 1 | 117 | 9 | 205 | 7 | 14 | 2 | 23 | 82 | 7 | | | |
| | 6 | 2 | 119 | 4 | 208 | 6 | 14 | 3 | 18 | 83 | 10 | | | |
| | 6 | 3 | 120 | 12 | 211 | 4 | 15 | 0 | 12 | 84 | 12 | | | |
| | 6 | 4 | 122 | 7 | 214 | 3 | 15 | 1 | 7 | 85 | 15 | | | |
| | 6 | 5 | 124 | 1 | 217 | 1 | 15 | 2 | 1 | 86 | 17 | | | |
| | 6 | 6 | 125 | 10 | 220 | 0 | 15 | 2 | 24 | 88 | 0 | | | |
| | 6 | 7. | 127 | 4 | 222 | 6 | 15 | 3 | 18 | 89 | 2 | | | |
| | 6 | 8 | 128 | 13 | 225 | 0 | 16 | 0 | 13 | 90 | 5 | | | |
| | 6 | 30 | 130 | 7 | 228 | 3 | 16 | 1 | 7 | 91 | 7 | | | |
| | 6 | 10 | 132 | 2 | 231 | 2 | 16 | 2 | 2 | 92 | 10 | | | |
| | 0 | 11 | 133 | 11 | 234 | 1 | 16 | 2 | 25 | 93 | 13 | | | |
| | 1.4 | 1 | 130 | D | 236 | 1 | 16 | 3 | 19 | 94 | 15 | | | |
| | 1 17 | 9 | 107 | 0 | 239 | 0 | 17 | 0 | 14 | 95 | 18 | | | |
| | 1 17 | 2 | 140 | 0 | 242 | 4 | 17 | 0 | 8 | 97 | 0 | | | |
| | 1 | 0 | 140 | 11 | 240 | 0 | 17 | 2 | 3 | 98 | 3 | | | |
| | 1 4 | 4 | 141 | 11 | 248 | 1 | 17 | 20 | 20 | 1 100 | 0 | | | |
| | 17 | B | 140 | 0 | 201 | 0 | 110 | 0 | 20 | 100 | 10 | | | |
| | 1 1 | 0 | 1 1 10 | 0 | 200 | 0 | 118 | 0 | 14 | 1 101 | 10 | | | |

| 96 | TAB | æ vi. | -WRIG | HT OF | LIVE (| CATTL | E BY | MEA | SURES | IENT. | |
|---------|-----|-------|-------------|---------------|--------|---------------|-------|----------|-------|-------|------|
| Girth. | Len | gth. | Imp Stor | erial nes. | Smith | field tes. | | Cwt: | s. ' | Scor | res. |
| Ft. In. | Ft. | In. | Sts. | Lbs. | Sts. | Lbs | Cwts. | Qrs | Lbs. | Scs. | Lbs. |
| 9 0 | 17 | 7 | 146 | 9 | 256 | 5 | 18 | 1 | 9 | 102 | 13 |
| | 7 | 8 | 148 | 4 | 259 | 4 | 18 | 2 | 4 | 103 | 16 |
| | 7 | 9 | 149 | 12 | 262 | 2 | 18 | 2 | 26 | 104 | 18 |
| | 7 | 10 | 151 | 7 | 265 | 1 | 18 | 3 | 21 | 106 | 1 |
| | 7 | 11 | 153 | 1 | 267 | 7 | 19 | 0 | 15 | 107 | 8 |
| | 8 | 0 | 154 | 10 | 270 | 6 | 19 | 1 | 10 | 108 | 6 |
| | 8 | 1 | 156 | 4 | 273 | 4 | 19 | 2 | 4 | 109 | 8 |
| | 8 | 2 | 157 | 13 | 276 | 3 | 19 | 2 | 27 | 110 | 11 |
| | 8 | 3 | 159 | 8 | 279 | 2 | 19 | 3 | 22 | 111 | 14 |
| | 8 | 4 | 161 | 2 | 282 | 0 | 20 | 0 | 16 | 112 | 16 |
| 9 1 | 5 | 5 | 106 | 10 | 186 | 6 | 13 | 1 | 10 | 74 | 14 |
| | 0 | 0 | 108 | 0 | 189 | 5 | 13 | 2 | D | 10 | 17 |
| | 0 | 7 | 110 | 0 | 192 | 4 | 10 | 3 | 0 | 177 | 0 |
| | 0 | 8 | 111 | 9 | 195 | 3 | 10 | 0 | 23 | 70 | 0 |
| | 0 | 10 | 110 | 1.0 | 193 | 2 | 14 | 1 | 10 | 20 | 0 |
| | 0 | 11 | 112 | 10 | 201 | 1 | 1.4 | ÷ | 10 | 01 | 19 |
| | 0 | 11 | 110 | 0 | 900 | | 14 | 2 | 0 | 01 | 15 |
| | 0 | 1 | 110 | 12 | 200 | 6 | 14 | 3 | 00 | 02 | 18 |
| | ß | 2 | 121 | 10 | 212 | 5 | 15 | 0 | 20 | 85 | 1 |
| | 6 | 3 | 123 | 2 | 215 | A | 15 | ĭ | 16 | 86 | 4 |
| | ß | 4 | 124 | 11 | 218 | 3 | 15 | 2 | 11 | 87 | 7 |
| | 6 | 5 | 126 | 6 | 221 | 2 | 15 | 8 | 6 | 88 | 10 |
| | 6 | 6 | 128 | õ | 224 | 0 | 16 | 0 | 0 | 89 | 12 |
| | 6 | 7 | 129 | 9 | 226 | 7 | 16 | 0 | 23 | 90 | 5 |
| | 6 | 8 | 131 | 4 | 229 | 6 | 16 | 1 | 18 | 91 | 18 |
| | 6 | 9 | 132 | 13 | 232 | 5 | 16 | 2 | 13 | 93 | 1 |
| | 6 | 10 | 134 | 8 | 235 | 4 | 16 | 3 | 8 | 94 | 4 |
| | 6 | 11 | 136 | 8 | 238 | 8 | 17 | 0 | 3 | 95 | 7 |
| | 7 | 0 | 137 | 12 | 241 | 2 | 17 | 0 | 26 | 96 | 10 |
| | 7 | 1 | 139 | 7 | 244 | 1 | 17 | 1 | 21 | 97 | 18 |
| | 7 | 2 | 141 | 2 | 247 | 0 | 17 | 2 | 16 | 98 | 16 |
| | 7 | 3 | 142 | 11 | 249 | 7 | 17 | 3 | 11 | 99 | 19 |
| | 7 | 4 | 144 | 6 | 252 | 6 | 18 | 0 | 6 | 101 | 2 |
| | 7 | 5 | 146 | 1 | 255 | 5 | 18 | 1 | 1 | 102 | 5 |
| | 7 | 6 | 147 | 10 | 258 | 4 | 18 | 1 | 24 | 103 | 8 |
| | 7 | 7 | 149 | 5 | 261 | 3 | 18 | 2 | 19 | 104 | 11 |
| | 7 | 8 | 151 | 0 | 264 | 2 | 18 | 3 | 14 | 105 | 14 |
| | 7 | 10 | 152 | 9 | 267 | 1 | 19 | 1 | 9 | 100 | 11 |
| | 7 | 10 | 104 | 4 | 270 | 0 | 19 | 1 | 2 | 108 | 0 |
| | 0 | 11 | 100 | 13 | 273 | 0 | 19 | 1 | 21 | 110 | 8 |
| | 0 | 1 | 150 | 0 | 210 | 5 | 10 | 8 | 17 | 111 | 9 |
| | 0 | 9 | 160 | 19 | 210 | 4 | 20 | 0 | 19 | 112 | 12 |
| | 8 | 8 | 162 | 14 | 284 | 8 | 20 | 1 | 10 | 118 | 15 |
| (| 0 | 0 | 102 | | 204 | 0 | 20 | 1 | - 1 | 110 | |

| TABLE VIWEIGHT OF LIVE CATTLE BY MEASUREMENT, 37 | | | | | | | | | | | | |
|--|-----|-------|------------|---------------|---------------|--------------|------|-----|------|------|------|---|
| Girth. | Le | ngth. | Imp Sto | erial nes. | Smith Ston | field es. | | Cwt | 3. | Sco | res. | - |
| Ft. In. | Ft. | Iu. | Sts. | Lbs. | Sts. | Lbs. | Cwts | Qrs | Lbs. | Scs. | Lbs. | |
| 9 1 | 8 | 4 | 164 | 2 | 287 | 2 | 20 | 2 | 2 | 114 | 18 | |
| 9 2 | 5 | 5 | 108 | 9 | 190 | 1 | 13 | 2 | 9 | 76 | 1 | |
| | 5 | 6 | 110 | 5 | 193 | 1 | 13 | 3 | 5 | 77 | 5 | |
| | 5 | 7 | 112 | 0 | 196 | 0 | 14 | 0 | 0 | 78 | 8 | |
| | 5 | 8 | 113 | 9 | 198 | 7 | 14 | 0 | 23 | 79 | 11 | |
| | 5 | 9 | 115 | 5 | 201 | 7 | 14 | 1 | 19 | 80 | 15 | |
| | 5 | 10 | 117 | 0 | 204 | 6 | 14 | 2 | 14 | 81 | 18 | |
| | 5 | 11 | 118 | 10 | 207 | 6 | 14 | 3 | 10 | 83 | 2 | |
| | 6 | 0 | 120 | 5 | 210 | 5 | 15 | 0 | 5 | 84 | 5 | |
| | 6 | 1 | 122 | 1 | 213 | 5 | 15 | 1 | 1 | 85 | 9 | |
| | 6 | 2 | 123 | 10 | 216 | 4 | 15 | 1 | 24 | 86 | 12 | |
| | 6 | 3 | 125 | 5 | 219 | 3 | 15 | 2 | 19 | 87 | 15 | |
| | 6 | 4 | 127 | 1 | 222 | 3 | 15 | 3 | 15 | 88 | 19 | |
| | 6 | 5 | 128 | 10 | 225 | 2 | 16 | 0 | 10 | 90 | 2 | |
| | 6 | 6 | 130 | 6 | 228 | 2 | 16 | 1 | 6 | 91 | 6 | |
| | 6 | 7 | 132 | 1 | 231 | 1 | 16 | 2 | 1 | 92 | 9 | |
| | 6 | 8 | 133 | 10 | 234 | 0 | 16 | 2 | 24 | 93 | 12 | |
| | 6 | 9 | 135 | 6 | 237 | 0 | 16 | 3 | 20 | 94 | 16 | |
| | 6 | 10 | 137 | 1 | 239 | 7 | 17 | 0 | 15 | 95 | 19 | |
| | 6 | 11 | 138 | 11 | 242 | 7 | 17 | 1 | 11 | 97 | 3 | |
| | 7 | 0 | 140 | 6 | 245 | 6 | 17 | 2 | 6 | 98 | 6 | |
| | 7 | 1 | 142 | 1 | 248 | 5 | 17 | 3 | 1 | 99 | 9 | |
| | 7 | 2 | 143 | 11 | 251 | 5 | 17 | 3 | 25 | 100 | 13 | |
| | 7 | 3 | 145 | 6 | 254 | 4 | 18 | 0 | 20 | 101 | 16 | |
| | 7 | 4 | 147 | 2 | 257 | 4 | 18 | 1 | 16 | 103 | 0 | |
| | 7 | 5 | 148 | 11 | 260 | 3 | 18 | 2 | 11 | 104 | 3 | |
| | 7 | 6 | 150 | 6 | 263 | 2 | 18 | 3 | 6 | 105 | 6 | |
| | 7 | 7 | 152 | 2 | 266 | 2 | 19 | 0 | 2 | 106 | 10 | |
| | 7 | 8 | 153 | 11 | 269 | 1 | 19 | 0 | 25 | 107 | 13 | |
| | 7 | 9 | 155 | 7 | 272 | 1 | 19 | 1 | 21 | 108 | 17 | |
| | 7 | 10 | 157 | 2 | 275 | 0 | 19 | 2 | 16 | 110 | 0 | |
| | 7 | 11 | 158 | 11 | 277 | 7 | 19 | 3 | 11 | 111 | 3 | |
| | 8 | 0 | 160 | 7 | 280 | 7 | 20 | 0 | 7 | 112 | 7 | |
| | 8 | 1 | 162 | 2 | 283 | 6 | 20 | 1 | 2 | 113 | 10 | |
| | 8 | 2 | 163 | 12 | 286 | 6 | 20 | 1 | 26 | 114 | 14 | |
| | 8 | 3 | 165 | 7 | 289 | 5 | 20 | 2 | 21 | 115 | 17 | |
| | 8 | 4 | 167 | 2 | 292 | 4 | 20 | 3 | 16 | 117 | 0 | |
| 9.8 | 5 | 5 | 110 | . 9 | 193 | 5 | 13 | 3 | 9 | 77 | 9 | |
| | 5 | 6 | 112 | 5 | 196 | 5 | 14 | 0 | 5 | 78 | 13 | |
| | 5 | 7 | 114 | 1 | 199 | 5 | 14 | 1 | 1 | 79 | 17 | |
| | 5 | 8 | 115 | 11 | 202 | 5 | 14 | 1 | 25 | 81 | 1 | |
| | 5 | 9 | 117 | 6 | 205 | 4 | 14 | 2 | 20 | 82 | 4 | |
| | 5 | 10 | 119 | 2 | 208 | 4 | 14 | 3 | 16 | 83 | 8 | |
| | 5 | 11 | 120 | 12 | 211 | 4 | 15 | 0 | 12 | 84 | 12 | |
| | | - | | | | | | | | | | |

| Girth. | Len | gth. | Impo | erial ies. | Smith Ston | field es. | | Cwts | | Sco | rcs. |
|---------|-----|------|------|---------------|---------------|--------------|-------|------|------|------|------|
| Ft. In. | Ft. | In. | Sts. | Lbs. | Sts. | Lbs. | Cwts. | Qrs. | Lbs. | Ses. | Lbs. |
| 9 3 | 6 | 0 | 122 | 8 | 214 | 4 | 15 | 1 | 8 | 85 | 16 |
| | 6 | 1 | 124 | 4 | 217 | 4 | 15 | 2 | 4 | 87 | 0 |
| | 6 | 2 | 126 | 0 | 220 | 4 | 15 | 3 | 0 | 88 | 4 |
| | 6 | 3 | 127 | 9 | 223 | 3 | 15 | 3 | 23 | 89 | 7 |
| | 6 | 4 | 129 | 5 | 226 | 3 | 16 | 0 | 19 | 90 | 11 |
| | 6 | 5 | 131 | 1 | 229 | 3 | 16 | 1 | 15 | 91 | 15 |
| | 6 | 6 | 132 | 11 | 232 | 3 | 16 | 2 | 11 | 92 | 19 |
| | 6 | 7 | 134 | 7 | 235 | 3 | 16 | 3 | 7 | 94 | 3 |
| | 6 | 8 | 136 | 3 | 238 | 3 | 17 | 0 | 3 | 95 | 7 |
| | 6 | 9 | 137 | 12 | 241 | 2 | 17 | 0 | 26 | 96 | 10 |
| | 6 | 10 | 139 | 8 | 244 | 2 | 17 | ĩ | 22 | 97 | 14 |
| | 6 | 11 | 141 | 4 | 247 | 2 | 17 | 2 | 18 | 98 | 18 |
| | 7 | 0 | 143 | 0 | 250 | 2 | 17 | 3 | 14 | 100 | 2 |
| | 7 | 1 | 144 | 10 | 253 | 2 | 18 | 0 | 10 | 101 | 6 |
| | 7 | 2 | 146 | 6 | 256 | 2 | 18 | 1 | 6 | 102 | 10 |
| | 7 | 3 | 148 | ĩ | 259 | ī | 18 | 2 | 1 | 103 | 13 |
| | 7 | 4 | 149 | 11 | 262 | î | 18 | 2 | 25 | 104 | 17 |
| | 7 | ñ | 151 | 17 | 285 | î | 18 | 3 | 21 | 106 | 1 |
| | 7 | ß | 153 | 3 | 268 | î | 19 | 0 | 17 | 107 | 5 |
| | 17 | 7 | 154 | 19 | 971 | î | 10 | 1 | 18 | 108 | a |
| | 7 | ŝ | 156 | 0 | 274 | 1 | 10 | 2 | 0 | 100 | 18 |
| | 7 | 0 | 158 | 4 | 277 | ô | 10 | 3 | 4 | 110 | 16 |
| | 7 | 10 | 180 | 0 | 080 | ő | 20 | 0 | â | 119 | -0 |
| | 7 | 11 | 161 | 10 | 200 | 0 | 20 | 0 | 24 | 113 | 4 |
| | 8 | -0 | 163 | 6 | 286 | 0 | 20 | 1 | 20 | 114 | 8 |
| | 8 | 1 | 105 | 9 | 020 | 0 | 20 | 2 | 18 | 115 | 19 |
| | 8 | 0 | 166 | 10 | 200 | 0 | 20 | 2 | 19 | 116 | 16 |
| | 8 | ŝ | 168 | 17 | 204 | 7 | 21 | 0 | 7 | 117 | 10 |
| | 6 | 4 | 170 | 0 | 907 | 17 | 91 | 1 | 0 | 110 | 10 |
| | 0 | a | 110 | 0 | 201 | | 21 | * | 0 | 110 | 0 |
| h 0 | 5 | 5 | 119 | 0 | 107 | 1 | 14 | 0 | 0 | 79 | 17 |
| . 1 | 5 | 6 | 114 | 5 | 200 | i | 14 | 1 | 5 | 80 | 1 |
| | 5 | 7 | 116 | 2 | 203 | 2 | 14 | 2 | 2 | 81 | R |
| | 5 | 8 | 117 | 12 | 206 | 2 | 14 | 2 | 26 | 82 | 10 |
| | 5 | 0 | 110 | 8 | 200 | 2 | 14 | 9 | 99 | 88 | 14 |
| | 5 | 10 | 121 | 4 | 200 | 2 | 15 | 0 | 18 | 84 | 18 |
| | 5 | 11 | 192 | 1 | 915 | 2 | 15 | 1 | 15 | 10 | 10 |
| | ß | 0 | 194 | 11 | 919 | 9 | 15 | 0 | 11 | 87 | 17 |
| | ß | 1 | 124 | 11 | 991 | 8 | 15 | 9 | 11 | 89 | 11 |
| | 6 | 2 | 120 | 8 | 224 | 3 | 16 | 0 | \$ | - 80 | 15 |
| | R | 2 | 120 | 0 | 997 | 4 | 10 | 1 | 0 | 01 | 10 |
| | R | 4 | 191 | 10 | 020 | 4 | 10 | 1 | 04 | 091 | 0 |
| | ß | 4 5 | 101 | 10 | 000 | 4 | 10 | 1 | 24 | 02 | 4 |
| | 0 | 0 | 100 | 0 | 200 | 2 | 10 | 20 | 20 | 00 | 10 |
| | 0 | 0 | 135 | 19 | 200 | 0 | 10 | 0 | 10 | 04 | 13 |
| | 0 | 1 | 136 | 13 | 239 | O | 17 | U | 13 | 90 | 17 |

| | TABLE VIWEIGHT OF LIVE CATTLE BY MEASUREMENT. | | | | | | | | | | 99 |
|---------|---|------|-------|---------------|-------|---------------|-------|------|------|------|------|
| Girth. | Len | gth. | Imp | erial nes. | Smith | field ics. | | Cwts | | Scor | res. |
| Ft. In. | Ft. | In. | Sts. | Lbs. | Sts. | Lbs. | Cwts. | Ors. | Lbs. | Scs. | Lbs. |
| 9 4 | 6 | 9 | 140 | . 5 | 245 | 5 | 17 | 2 | 5 | 98 | 5 |
| | 6 | 10 | 142 | 2 | 248 | 6 | 17 | 3 | 2 | 99 | 10 |
| | 6 | 11 | 143 | 12 | 251 | 6 | 17 | 3 | 26 | 100 | 14 |
| | 7 | 0 | 145 | 8 | 254 | 6 | 18 | 0 | 22 | 101 | 18 |
| | 7 | 1 | 147 | 4 | 257 | 6 | 18 | 1 | 18 | 103 | 2 |
| | 7 | 2 | 149 | 1 | 260 | 7 | 18 | 2 | 15 | 104 | 7 |
| | 7 | 3 | 150 | 11 | 263 | 7 | 18 | 3 | 11 | 105 | 11 |
| | 7 | 4 | 152 | 7 | 266 | 7 | 19 | 0 | 7 | 106 | 15 |
| | 7 | 5 | 154 | 3 | 269 | 7 | 19 | 1 | 3 | 107 | 19 |
| | 7 | 6 | 156 | 0 | 273 | 0 | 19 | 2 | 0 | 109 | 4 |
| | 7 | 7 | 157 | 10 | 276 | 0 | 19 | 2 | 24 | 110 | 8 |
| | 7 | 8 | 159 | 6 | 279 | 0 | 19 | 3 | 20 | 111 | 12 |
| | 7 | 9 | 161 | 2 | 282 | 0 | 20 | 0 | 16 | 112 | 16 |
| | 17 | 10 | 162 | 13 | 280 | 1 | 20 | 1 | 13 | 114 | 1 |
| | 7. | 11 | 164 | 9 | 288 | 1 | 20 | 2 | 9 | 115 | 0 |
| | 8 | 0 | 166 | 0 | 291 | 1 | 20 | 3 | 0 | 116 | 9 |
| | 8 | 1 | 108 | 10 | 294 | 2 | 21 | 0 | 200 | 117 | 14 |
| | 8 | 2 | 169 | 12 | 297 | 2 | 21 | 0 | 26 | 118 | 18 |
| | 8 | 3 | 171 | 8 | 300 | 2 | 21 | 1 | 22 | 120 | 2 |
| | 8 | 4 | 173 | 4 | 303 | 2 | 21 | 2 | 18 | 121 | 0 |
| 9 5 | 5 | 6 | 116 | 6 | 203 | 6 | 14 | 2 | 6 | 81 | 10 |
| | 5 | 7 | 118 | 3 | 206 | 7 | 14 | 3 | 3 | 82 | 15 |
| | 5 | 8 | 119 | 13 | 209 | 7 | 14 | 3 | 27 | 83 | 19 |
| | 5 | 9 | 121 | 10 | 213 | 0 | 15 | 0 | 24 | 85 | 4 |
| | 5 | 10 | 123 | 7 | 216 | 1 | 15 | 1 | 21 | 86 | 9 |
| | 5 | 11 | 125 | 4 | 219 | 2 | 15 | 2 | 18 | 87 | 14 |
| | 6 | 0 | 127 | 0 | 222 | 2 | 15 | 3 | 14 | 88 | 18 |
| | 6 | 1 | 128 | 11 | 225 | 3 | 16 | 0 | 11 | 90 | 3 |
| | 6 | 2 | 130 | 8 | 228 | 4 | 16 | 1 | 8 | 91 | 8 |
| | 6 | 3 | 132 | 4 | 231 | 4 | 16 | 2 | 4 | 92 | 12 |
| | 6 | 4 | 134 | 1 | 234 | 5 | 16 | 3 | 1 | 93 | 17 |
| | 6 | 5 | 135 | 12 | 237 | 6 | 16 | 3 | 26 | 95 | 2 |
| | 6 | 6 | 137 | 8 | 240 | 6 | 17 | 0 | 22 | 96 | 6 |
| | 6 | 7 | 139 | 5 | 243 | 7 | 17 | 1 | 19 | 97 | 11 |
| | 6 | 8 | 141 | 2 | 247 | 0 | 17 | 2 | 16 | 98 | 16 |
| | 6 | 9 | 142 | 13 | 250 | 1 | 17 | 3 | 13 | 100 | 1 |
| | 6 | 10 | 144 | 9 | 253 | 1 | 18 | 0 | 9 | 101 | 0 |
| | 6 | 11 | 146 | 6 | 256 | 20 | 18 | 1 | 6 | 102 | 10 |
| | 1 7 | 0 | 148 | 10 | 259 | 3 | 18 | 2 | 07 | 103 | 10 |
| | 17 | 1 | 149 | 13 | 262 | 3 | 18 | 2 | 27 | 104 | 19 |
| | 17 | 2 | 151 | 10 | 265 | 4 | 18 | 3 | 24 | 106 | 4 |
| | 1 | 3 | 103 | 7 | 268 | 5 | 19 | 0 | 21 | 107 | 10 |
| | 1 | 4 | 100 | 3 | 271 | 0 | 19 | 1 | 17 | 108 | 10 |
| | 1 | 0 | 107 | 11 | 274 | 6 | 19 | 20 | 14 | 109 | 13 |
| | 1 2 | 0 | 1 108 | 11 | 1 211 | 1 | 1 19 | 3 | 11 | 111 | 0 |

| 100 : | FABLE | vı.— | WEIGHT | C OF I | TAE CV | TTLE | BY M | EASU | REME | NT. | |
|--------|-------|-------|--------|---------------|--------|---------------|-------|------|------|------|------|
| Girth. | Len | igth. | Impo | erial nes. | Smith | field ics. | | Cwts | L. | Scor | ·es. |
| Ft In | 1/t | In | Ste | The | Sta | The | Carte | Ors | Lba | Sea | Lbg |
| 9 5 | 7 | 7 | 160 | 8 | 281 | 0 | 20 | 0 | 8 | 112 | 8 |
| | 7 | 8 | 162 | 4 | 284 | 0 | 20 | 1 | 4 | 113 | 12 |
| | 7 | 9 | 164 | î | 287 | 1 | 20 | 2 | 1 | 114 | 17 |
| | 7 | 10 | 185 | 19 | 200 | ô | 20 | 0 | 28 | 116 | 2 |
| | 17 | 11 | 167 | 0 | 909 | 0 | 20 | 0 | 00 | 117 | ē |
| | e l | - | 160 | 5 | 906 | 0 | 21 | 0 | 10 | 118 | 11 |
| | 8 | 1 | 171 | 0 | 200 | 4 | 21 | | 18 | 110 | 16 |
| | 0 | 9 | 1/79 | 10 | 200 | A | 21 | 0 | 19 | 191 | 0 |
| | 0 | 0 | 170 | 12 | 002 | * | 01 | 0 | 12 | 100 | 5 |
| | 0 | 0 | 172 | 9 | 000 | 0 | 21 | 0 | 0 | 122 | 10 |
| | 0 | * | 110 | 0 | 000 | 0 | 22 | 0 | 0 | 120 | 10 |
| 9 6 | 5 | 6 | 118 | 7 | 207 | 3 | 14 | 3 | 7 | 82 | 19 |
| | 5 | 7 | 120 | 4 | 210 | 4 | 15 | 0 | 4 | 84 | 4 |
| | 5 | 8 | 122 | 1 | 213 | 5 | 15 | 1 | 1 | 85 | 9 |
| | 5 | 9 | 123 | 12 | 216 | 6 | 15 | 1 | 26 | 86 | 14 |
| | 5 | 10 | 125 | 10 | 220 | 0 | 15 | 2 | 24 | 88 | 0 |
| | 5 | 11 | 127 | 7 | 223 | 1 | 15 | 3 | 21 | 89 | 5 |
| | 6 | 0 | 129 | 4 | 226 | 2 | 16 | 0 | 18 | 90 | 10 |
| | 6 | 1 | 131 | 1 | 229 | 3 | 16 | 1 | 15 | 91 | 15 |
| | 6 | 2 | 132 | 12 | 232 | 4 | 16 | 2 | 12 | 93 | 0 |
| | 6 | 3 | 134 | 9 | 235 | 5 | 16 | 3 | 9 | 94 | 5 |
| | 6 | 4 | 136 | 6 | 238 | 6 | 17 | 0 | 6 | 95 | 10 |
| | 6 | 5 | 138 | 4 | 242 | 0 | 17 | 1 | 4 | 96 | 16 |
| | 6 | 6 | 140 | - 1 | 245 | 1 | 17 | 2 | 1 | 98 | 1 |
| | 6 | 7 | 141 | 12 | 248 | 2 | 17 | 2 | 26 | 99 | 6 |
| | 6 | .8 | 143 | 9 | 251 | 3 | 17 | 3 | 23 | 100 | 11 |
| | 6 | 9 | 145 | 6 | 254 | 4 | 18 | 0 | 20 | 101 | 16 |
| | 6 | 10 | 147 | 3 | 257 | 5 | 18 | 1 | 17 | 103 | 1 |
| | 6 | 11 | 149 | 0 | 260 | 6 | 18 | 2 | 14 | 104 | 6 |
| | 7 | 0 | 150 | 12 | 264 | 0 | 18 | 3 | 12 | 105 | 12 |
| | 7 | 1 | 152 | 9 | 267 | 1 | 19 | 0 | 9 | 106 | 17 |
| | 7 | 2 | 154 | 6 | 270 | 2 | 19 | 1 | 6 | 108 | 2 |
| | 7 | 3 | 156 | 3 | 273 | 3 | 19 | 2 | 3 | -109 | 7 |
| | 7 | 4 | 158 | 0 | 276 | 4 | 19 | 3 | 0 | 110 | 12 |
| | 7 | 5 | 159 | 11 | 279 | 5 | 19 | 3 | 25 | 111 | 17 |
| | 7 | 6 | 161 | 8 | 282 | 6 | 20 | 0 | 22 | 113 | 2 |
| | 7 | 7 | 163 | 5 | 285 | 7 | 20 | 1 | 19 | 114 | 7 |
| | 7 | 8 | 165 | 3 | 289 | 1 | 20 | 2 | 17 | 115 | 13 |
| | 7 | 9 | 167 | 0 | 292 | 2 | 20 | 3 | 14 | 116 | 18 |
| | 7 | 10 | 168 | 11 | 295 | 3 | 21 | 0 | 11 | 118 | 3 |
| | 7 | 11 | 170 | 8 | 298 | 4 | 21 | 1 | 8 | 119 | . 8 |
| | 8 | 0 | 172 | 5 | 301 | 5 | 21 | 2 | 5 | 120 | 13 |
| | 8 | 1 | 174 | 2 | 304 | 6 | 21 | 3 | 2 | 121 | 18 |
| | 8 | 2 | 175 | 13 | 307 | 7 | 21 | 3 | 27 | 123 | 3 |
| | 8 | 3 | 177 | 11 | 811 | 1 | 22 | 0 | 25 | 124 | 9 |
| | 8 | 4 | 179 | 10 | 314 | 2 | 22 | 1 | 24 | 125 | 16 |
| | | | | | | | | | | | |
TABLE VII.

Shows the live and dead weight of cattle in Imperial stores of 14 lbs., in Smithfield stores of 8 lbs., in owts., and in scores, singing the Offale.

Is the left-hand column of the Table is placed the weight of the live animal in Imperial stones; and when killed, the weight of the four quarters is found opposite each live weight in Imperial stones, Smithfield stones, owts., and scores.

EXAMPLE. The weight of a live ox has been ascertained to be 133 Imperial stones; how much will the four quarters weigh?

Having found the weight, 133 stones, in the left-hand column, opposite thereto stands 74 stones 114 lbs. Imperial, 130 stones 74 lbs. Smithfield, 9 cwt. 1 qr. 114 lbs., and 53 secores 74 lbs., the weight of the four quarters in each of these denominations.

If it were desired to know the weight in Glasgow Trone stones of $22\frac{1}{2}$ Imperial ounces to the pound, or $22\frac{1}{2}$ Imperial pounds to the stone, multiply the weight, found as above, by 14, and divide the product by $22\frac{1}{2}$, or, on account of the fraction, multiply by 23, and divide by 45.



Or, 46 stones 822 lbs. Glasgow Trone weight.

Or, if we turn to Table X., we there find that Sts. Lbs. twice 37, or 74 stones Imperial . . = $46 \quad 0\frac{1}{2}$ And, as the Trone stone is $22\frac{1}{2}$ lbs., $11\frac{1}{4}$ ibs. is half a Trone stone = 0 8

46 81

Table VIII., showing the live and dead weight of swine, and Table IX., showing the live and dead weight of sheep, are so similar to this Table that they will require no explanation. 102

TABLE VII .- LIVE AND DEAD WEIGHT OF CATTLE.

| LIVE | WEIGHT OF THE FOUR QUARTERS. | | | | |
|---------|------------------------------|-----------------------------------|-------------------------|------------------|--|
| WEIGHT. | Imperial Stones. | Imperial Stones. Smithfield Cwts. | | Scores. | |
| Stones. | Stones. Lbs. | Stones. Lbs. | Cwts. Qrs. Lbs. | Scores. Lbs. | |
| 1 | 0 73 | 0 7% | 0 0 77 | 0 71 | |
| 2 | 1 14 | 1 74 | $0 \ 0 \ 15\frac{3}{2}$ | 0 15 | |
| 3 | 1 91 | 2 71 | $0 \ 0 \ 23\frac{1}{2}$ | $1 3\frac{1}{2}$ | |
| 4 | 2 31 | 3 71 | $0 \ 1 \ 3\frac{1}{2}$ | 1 114 | |
| 5 | $2 11\frac{1}{4}$ | 4 7 | 0 1 11 | 1 194 | |
| 6 | 3 51 | 5 71 | 0 1 191 | 2 74 | |
| 7 | 3 13 | 6 7 | 0 1 27 | 2 10 | |
| 8 | 4 7 | 7 7 | 0 2 7 | 0 108 | |
| 9 | 5 04 | 8 01 | | 0 102 | |
| 10 | 0 01 | 10 61 | 0 2 222 | A 81 | |
| 11 | 0 101 | 11 81 | 0 9 101 | 4 141 | |
| 13 | 7 41 | 12 61 | 0 3 181 | 5 24 | |
| 14 | 7 12 | 18 61 | 0 3 261 | 5 101 | |
| 15 | 8 6 | 14 6 | 1 0 6 | 5 18 | |
| 16 | 9 0 | 15 6 | 1 0 14 | 6 6 | |
| 17 | 9 74 | 16 5% | 1 0 215 | 6 131 | |
| 18 | 10 14 | 17 5% | 1 1 1 | 7 12 | |
| 19 | 10 91 | 18 51 | 1 1 91 | 7 95 | |
| 20 | 11 35 | 19 55 | 1 1 175 | 7 175 | |
| 21 | 11 111 | 20 51 | 1 1 251 | 8 51 | |
| 22 | 12 51 | 21 51 | 1 2 51 | 8 131 | |
| 23 | 12 13 | 22 5 | 1 2 13 | 9 1 | |
| 24 | 13 7 | 23 5 | 1 2 21 | 9 9 | |
| 25 | 14 0% | 24 43 | 1 3 03 | 9 164 | |
| 26 | 14 8 | 25 44 | 1 3 84 | 10 44 | |
| 27 | 15 21 | 26 41 | 1 3 165 | 10 125 | |
| 28 | 15 105 | 27 44 | 1 3 244 | 11 03 | |
| 29 | | 28 4 | 2 0 42 | 11 101 | |
| 30 | 16 124 | 29 41 | 0 0 20 | 19 4 | |
| 01 | 17 0 | 21 4 | 9 1 0. | 12 12 | |
| 99 | 19 73 | 32 38 | 2 1 78 | 12 194 | |
| 84 | 10 18 | 33 35 | 2 1 154 | 13 74 | |
| 35 | 10 01 | 84 34 | 2 1 231 | 13 151 | |
| 36 | 20 31 | 35 31 | 2 2 31 | 14 31 | |
| 37 | 20 114 | 36 31 | 2 2 11 | 14 11 | |
| 38 | 21 5 | 37 31 | 2 2 191 | 14 191 | |
| 39 | 21 13 | 38 3 | 2 2 27 | 15 7 | |
| 40 | 22 7 | 39 3 | 2 3 7 | 15 15 | |
| 41 | 23 01 | 40 21 | 2 3 143 | 16 21 | |
| 42 | 23 81 | 41 24 | 2 3 224 | 16 10% | |
| 43 | 24 21 | 42 21 | 3 0 21 | 16 181 | |
| 44 | 24 101 | 43 21 | 3 0 101 | 1 17 61 | |
| | | | | | |

TABLE VIL-LIVE AND DEAD WEIGHT OF CATTLE.

104

TABLE VII .- LIVE AND DEAD WEIGHT OF CATTLE.

| LIVE | WRIGHT OF THE FOUR QUARTERS. | | | | |
|---------|------------------------------|-----------------------|------------------------|--------------|--|
| WEIGHT. | Imperial Stones. | Smithfield Stones. | Cwts. | Scores. | |
| Stones. | Stones. Lbs. | Stones. Lbs. | Cwts. Qrs. Lbs. | Scores. Lbs. | |
| 89 | 50 0章 | 87 44 | 6 1 02 | 35 01 | |
| 90 | 50 84 . | 88 44 | $6 \ 1 \ 8\frac{3}{4}$ | 35 81 | |
| 91 | $51 2\frac{1}{2}$ | 89 41 | 6 1 164 | 35 164 | |
| 92 | 51 101 | 90 41 | $6 1 24\frac{1}{2}$ | 36 44 | |
| 93 | 52 44 | 91 44 | 6 2 44 | 36 124 | |
| 94 | $52 12\frac{1}{4}$ | 92 44 | 6 2 124 | 37 01 | |
| 95 | 53 6 | 93 4 | 6 2 20 | 37 8 | |
| 96 | 54 0 | 94 4 | 6 3 0 | 37 10 | |
| 97 | 04 77 | 95 34 | 6 3 72 | 8 01 | |
| 98 | 00 12 | 96 34 | 6 3 154 | 38 113 | |
| 99 | 50 94 | 97 34 | 6 3 235 | 00 71 | |
| 100 | 00 0g | 00 91 | 7 0 111 | 20 151 | |
| 101 | 50 112 | 100 91 | 7 0 101 | 40 31 | |
| 102 | 57 19 | 100 01 | 7 0 97 | 40 11 | |
| 100 | 58 7 | 101 3 | 7 1 7 | 40 19 | |
| 105 | 59 03 | 103 28 | 7 1 148 | 41 63 | |
| 108 | 59 85 | 104 28 | 7 1 22 | 41 143 | |
| 107 | 60 21 | 105 21 | 7 2 21 | 42 21 | |
| 108 | 60 101 | 106 21 | 7 2 101 | 42 101 | |
| 109 | 61 44 | 107 24 | 7 2 18 | 42 18 | |
| 110 | 61 12 | 108 24 | 7 2 26 | 43 61 | |
| 111 | 62 6 | 109 2 | 7 3 6 | 43 14 | |
| 112 | 63 0 | 110 2 | 7 3 14 | 44 2 | |
| 113 | 63 71 | 111 11 | 7 3 211 | 44 97 | |
| 114 | 64 14 | 112 12 | 8 0 1 | 44 17 | |
| 115 | 64 91 | 113 15 | 8 0 91 | 45 51 | |
| 116 | 65 31 | 114 11 | 8 0 17 | 45 131 | |
| 117 | 65 11 | 115 1 | 8 0 251 | 46 1 | |
| 118 | 66 51 | 116 1 | 8 1 5 | 46 91 | |
| 119 | 66 13 | 117 1 | 8 1 13 | 46 17 | |
| 120 | 67 7 | 118 1 | 8 1 21 | 47 0 | |
| 121 | 68 03 | 119 04 | 8 2 04 | 47 124 | |
| 122 | 68 82 | 120 04 | 8 2 8 | 48 04 | |
| 123 | 69 21 | 121 01 | 8 2 165 | 48 85 | |
| 124 | 69 104 | 122 04 | 8 2 244 | 48 103 | |
| 125 | 70 4 | 123 01 | 8 3 42 | 19 12 | |
| 126 | 70 124 | 124 04 | 0 2 90 | 50 0 | |
| 127 | 71 6 | 120 0 | 8 3 20 | 50 8 | |
| 128 | 12 0 | 120 0 | 0 0 73 | 50 158 | |
| 129 | 10 13 | 120 74 | 0 0 158 | 51 33 | |
| 191 | 10 12 | 199 71 | 0 0 231 | 51 111 | |
| 100 | 74 91 | 120 71 | 0 1 31 | 51 191 | |
| 102 | 1 12 03 | 120 12 | | 101 101 | |

| TABLE THLIVE AND DEAD WRIGHT OF CATHER | | | | | |
|--|------------------------------|-----------------------|--------------------------|--------------|--|
| LIVE | WEIGHT OF THE FOUR QUARTERS. | | | | |
| WEIGHT. | Imperial Stones. | Smithfield Stones. | Cwts. | Scores. | |
| Stones. | Stones. Lbs. | Stones. Lbs. | Cwts. Qrs. Lbs. | Scores. Lbs. | |
| 133 | 74 11 | 130 71 | $9 1 11\frac{1}{2}$ | 52 71 | |
| 134 | 75 51 | $131 7\frac{1}{4}$ | $9 1 19\frac{1}{4}$ | 52 154 | |
| 135 | 75 13 | 132 7 | 9 1 27 | 53 3 | |
| 136 | 76 7 | 133 7 | 927 | 53 11 | |
| 137 | 77 03 | 134 6 | $9 \ 2 \ 14\frac{3}{4}$ | 53 184 | |
| 138 | $77 8\frac{3}{4}$ | 135 64 | $9 2 22\frac{3}{4}$ | 54 64 | |
| 139 | $78 2\frac{1}{2}$ | 136 61 | 9 3 21 | 54 144 | |
| 140 | 78 101 | 137 65 | 9 3 101 | 00 24 | |
| 141 | 79 44 | 138 64 | 9 3 184 | 00 102 | |
| 142 | 79 124 | 139 64 | 9 3 264 | 55 184 | |
| 143 | 80 6 | 140 6 | 10 0 6 | 50 0 | |
| 144 | 81 0 | 141 6 | 10 0 14 | 00 14 | |
| 140 | 01 73 | 142 04 | 10 1 15 | 57 08 | |
| 140 | 82 14 | 143 02 | | 01 02 | |
| 147 | 82 15 | 144 05 | 10 1 34 | 51 113 | |
| 140 | 00 00 | 140 51 | 10 1 1/2 | 50 191 | |
| 140 | 00 117 | 140 07 | 10 1 212 | 50 11 | |
| 151 | 01 01 | 147 07 | 10 2 07 | 50 0 | |
| 159 | 01 10 | 140 5 | 10 2 10 | 50 17 | |
| 152 | 00 1 | 150 43 | 10 2 03 | 80 48 | |
| 154 | 68 68 | 151 48 | 10 3 88 | 80 122 | |
| 155 | 87 91 | 159 41 | 10 8 161 | 61 01 | |
| 156 | 87 101 | 153 41 | 10 3 241 | 61 81 | |
| 157 | 88 41 | 154 41 | 11 0 41 | 61 164 | |
| 158 | 88 121 | 155 44 | 11 0 124 | 62 44 | |
| 159 | 89 6 | 156 4 | 11 0 20 | 62 12 | |
| 160 | 90 0 | 157 4 | 11 1 0 | 63 0 | |
| 161 | 90 74 | 158 33 | 11 1 7% | 63 73 | |
| 162 | 91 14 | 159 34 | 11 1 15% | 63 15 | |
| 163 | 91 91 | 160 31 | 11 1 231 | 64 31 | |
| 164 | 92 31 | 161 31 | 11 2 31 | 64 111 | |
| 165 | 92 111 | 162 31 | 11 2 111 | 64 191 | |
| 166 | 93 51 | 163 31 | 11 2 191 | 65 71 | |
| 167 | 93 13 | 164 3 | 11 2 27 | 65 15 | |
| 168 | 94 7 | 165 3 | 11 3 7 | 66 3 | |
| 169 | 95 0% | 166 23 | 11 3 142 | 66 10% | |
| 170 | 95 82 | 167 24 | $11 \ 3 \ 22\frac{5}{4}$ | 66 18% | |
| 171 | 96 21 | 168 21 | 12 0 21 | 67 61 | |
| 172 | 96 101 | 169 21 | $12 \ 0 \ 10\frac{1}{2}$ | 67 141 | |
| 173 | 97 41 | 170 21 | 12 0 18 | 68 24 | |
| 174 | 97 121 | 171 21 | $12 \ 0 \ 26\frac{1}{4}$ | 68 101 | |
| 175 | 98 6 | 172 2 | 12 1 6 | 68 18 | |
| 176 | 99 0 | 173 2 | 12 1 14 | 69 6 | |

106 TABLE VII.-LIVE AND DEAD WEIGHT OF CATTLE.

| Lave | WEIGHT OF THE FOUR QUARTEES. | | | | |
|---------|------------------------------|--|--------------------------|--------------|--|
| WEIGHT. | Imperial Stones. | Imperial Stones. Smithfield Stones. | | Scores. | |
| Stones. | Stones, Lbs, | Stones, Lbs. | Cwts, Ors. Lbs. | Scores, Lbs. | |
| 177 | 99 71 | 174 11 | 12 1 211 | 69 134 | |
| 178 | 100 11 | 175 14 | 12 2 12 | 70 14 | |
| 179 | 100 91 | 176 11 | 12 2 91 | 70 91 | |
| 180 | 101 31 | 177 11 | $12 \ 2 \ 17\frac{1}{2}$ | 70 175 | |
| 181 | 101 11 | 178 11 | 12 2 251 | 71 51 | |
| 182 | 102 5 | 179 11 | 12 3 51 | 71 13 | |
| 183 | 102 13 | 180 1 | 12 3 13 | 72 1 | |
| 184 | 103 7 | 181 1 | 12 3 21 | 72 9 | |
| 185 | 104 . 01 | 182 04 | 13 0 01 | 72 164 | |
| 186 | 104 81 | $183 0 \frac{3}{4}$ | 13 0 84 | 73 44 | |
| 187 | 105 25 | 184 01 | 13 0 161 | 73 121 | |
| 188 | 105 105 | 185 01 | 13 0 241 | 74 01 | |
| 189 | 106 41 | 186 01 | 13 1 4 | 74 84 | |
| 190 | 106 121 | 187 01 | 13 1 124 | 74 164 | |
| 191 | 107 6 | 188 0 | 13 1 20 | 75 4 | |
| 192 | 108 0 | 189 0 | 13 2 0 | 70 12 | |
| 193 | 108 74 | 189 74 | 13 2 74 | 75 194 | |
| 194 | 109 12 | 190 74 | 13 2 154 | 76 74 | |
| 195 | 109 95 | 191 75 | | 76 105 | |
| 196 | 110 34 | 192 75 | 13 3 35 | 77 34 | |
| 197 | 110 114 | 193 71 | 13 3 112 | 77 112 | |
| 198 | 111 04 | 104 17 | 10 0 104 | HO H | |
| 199 | 111 10 | 100 7 | 10 0 21 | 10 1 | |
| 200 | 112 03 | 107 08 | 14 0 148 | 70 98 | |
| 201 | 113 83 | 102 64 | 14 0 998 | 79 104 | |
| 202 | 114 91 | 190 84 | 14 1 21 | 79 184 | |
| 204 | 114 101 | 200 64 | 14 1 101 | 80 61 | |
| 205 | 115 41 | 201 61 | 14 1 18 | 80 141 | |
| 206 | 115 124 | 202 61 | 14 1 261 | 81 21 | |
| 207 | 116 6 | 203 6 | 14 2 6 | 81 10 | |
| 208 | 117 0 | 204 6 | 14 2 14 | 81 18 | |
| 209 | 117 74 | 205 51 | 14 2 212 | 82 54 | |
| 210 | 118 11 | 206 54 | 14 3 1 | 82 134 | |
| 211 | 118 91 | 207 51 | 14 3 91 | 83 11 | |
| 212 | 119 31 | 208 51 | 14 3 171 | 83 91 | |
| 213 . | 119 11 | 209 51 | 14 3 251 | 83 17 | |
| 214 | 120 51 | 210 51 | 15 0 51 | 84 54 | |
| 215 | 120 13 | 211 5 | 15 0 13 | 84 13 | |
| 216 | 121 7 | 212 5 | 15 0 21 | 85 1 | |
| 217 | 122 01 | 213 4 | 15 1 03 | 80 81 | |
| . 218 | 122 84 | 214 44 | 15 1 82 | 85 162 | |
| 219 | 123 21 | 215 44 | 15 1 164 | 80 44 | |
| 220 | 1 123 101 | 216 41 | 10 1 244 | 1 80 123 | |

| LIVE | | W | FIGHT C | F THE | Four | QUAI | RTERS. | | | |
|---------|------------------------|-----------------|---------------|-----------------------------|------|------|-----------------|---------|------|--|
| WEIGHT. | IGHT. Imperial Stones. | | Smith Stor | Smithfield Stones. Cwts. | | | 5. | Scores. | | |
| Stones. | Stones. | Lbs. | Stones. | Lbs. | Cwts | Qrs | . Lbs. | Scores. | Lbs. | |
| 221 | 124 | 44 | 217 | 44 | 15 | 2 | 44 | 87 | 01 | |
| 222 | 124 | $12\frac{1}{4}$ | 218 | 41 | 15 | 2 | 121 | 87 | 81 | |
| 223 | 125 | 6 | 219 | 4 | 15 | 2 | 20 | 87 | 16 | |
| 224 | 126 | 0 | 220 | 4 | 15 | 3 | 0 | 88 | 4 | |
| 225 | 126 | 73 | 221 | 34 | 15 | 3 | 77 | 88 | 113 | |
| 226 | 127 | 14 | 222 | 34 | 15 | 3 | 15% | 88 | 193 | |
| 227 | 127 | 91 | 223 | 31 | 15 | 3 | 231 | 89 | 71 | |
| 228 | 128 | 31 | 224 | 31 | 16 | 0 | 31 | 89 | 151 | |
| 229 | 128 | 111 | 225 | 34 | 16 | 0 | 111 | 90 | 31 | |
| 230 | 129 | 54 | 226 | 31 | 16 | 0 | 191 | 90 | 114 | |
| 231 | 129 | 13 | 227 | 3 | 16 | 0 | 27 | 90 | 19 | |
| 232 | 130 | 7 | 228 | 3 | 16 | 1 | 7 | 91 | 7 | |
| 233 | 131 | 04 | 229 | $2\frac{3}{4}$ | 16 | 1 | 142 | 91 | 147 | |
| 234 | 131 | 87 | 230 | $2\frac{3}{4}$ | 16 | 1 | $22\frac{3}{4}$ | 92 | 23 | |
| 235 | 132 | 21 | 231 | 21 | 16 | 2 | 21 | 92 | 101 | |
| 236 | 132 | 101 | 232 | 21 | 16 | 2 | 101 | 92 | 181 | |
| 237 | 133 | 4 | 233 | $2\frac{1}{4}$ | 16 | 2 | 181 | 93 | 61 | |
| 238 | 133 | 121 | 234 | 21 | 16 | 2 | $26\frac{1}{4}$ | 93 | 14 | |
| 239 | 134 | 6 | 235 | 2 | 16 | 3 | 6 | 94 | 2 | |
| 240 | 135 | 0 | 236 | 2 | 16 | 3 | 14 | .94 | 10 | |
| 241 | 135 | $7\frac{3}{4}$ | 237 | 14 | 16 | 3 | 213 | 94 | 173 | |
| 242 | 136 | 14 | 238 | 13 | 17 | 0 | 12 | 95 | 53 | |
| 243 | 136 | 94 | 239 | 15 | 17 | 0 | 91 | 95 | 131 | |
| 244 | 137 | 34 | 240 | 15 | 17 | 0 | 175 | 96 | 14 | |
| 245 | 137 | 117 | 241 | 11 | 17 | 0 | 251 | 96 | 93 | |
| 246 | 138 | 51 | 242 | 11 | 17 | 1 | 51 | 96 | 17 | |
| 247 | 138 | 13 | 243 | 1 | 17 | 1 | 13 | 97 | 5 | |
| 248 | 139 | 7 | 244 | 1 | 17 | 1 | 21 | 97 | 13 | |
| 249 | 140 | 02 | 245 | 04 | 17 | 2 | 03 | 98 | 01 | |
| 250 | 140 | 84 | 246 | 01 | 17 | 2 | 84 | 98 | 84 | |
| 201 | 141 | 21 | 247 | 05 | 17 | 2 | 161 | 98 | 165 | |
| 202 | 141 | 105 | 248 | 02 | 17 | 2 | 245 | 99 | 44 | |
| 253 | 142 | 44 | 249 | 01 | 17 | 3 | 44 | 99 | 124 | |
| 254 | 142 | 124 | 250 | 04 | 17 | 3 | 124 | 100 | 01 | |
| 255 | 143 | 6 | 251 | 0 | 17 | 3 | 20 | 100 | 8 | |
| 206 | 144 | 0 | 252 | 0 | 18 | 0 | 0 | 100 | 16 | |
| 207 | 144 | 14 | 252 | 14 | 18 | 0 | 74 | 101 | 3 | |
| 258 | 145 | 14 | 253 | 74 | 18 | 0 | 154 | 101 | 113 | |
| 209 | 145 | 84 | . 254 | 73 | 18 | 0 | 234 | 101 | 193 | |
| 260 | 146 | 34 | 255 | 12 | 18 | 1 | 34 | 102 | 73 | |
| 201 | 146 | 114 | 256 | 14 | 18 | 1 | 112 | 102 | 15 | |
| 202 | 147 | 01 | 207 | 12 | 18 | 1 | 194 | 103 | 3 | |
| 203 | 147 | 13 | 258 | 1 | 18 | 1 | 27 | 103 | 11 | |
| 204 | 1 148 | 7 | 1 259 | 7 | 1 18 | 2 | 7 | 1 103 | 19 | |

TABLE VII. - LIVE AND DEAD WEIGHT OF CATTLE.

TABLE VIII.

Shows the live and dead weight of swine, in Imperial stones of 14 lbs., in Smithfield stones of 8 lbs., in cwis., and in scores, sinking the offals.

| LIVE | WEIGHT OF THE FOUR QUARTERS. | | | | |
|---------|------------------------------|-----------------------|---------------------|-------------------|--|
| WEIGHT. | Imperial Stones. | Smithfield Stones. | Cwts. | Scores. | |
| Stones. | Stones, Lbs. | Stones, Lbs. | Cwts, Qrs. Lbs. | Scores. Lbs. | |
| 1 | 0 101 | 1 21 | 0 0 101 | 0, 101 | |
| 13 | 1 12 | 1 7% | 0 0 15% | 0 15% | |
| 2 | 1 7 | 2 5 | 0 0 21 | 1 1 | |
| 21 | 1 121 | 3 21 | 0 0 261 | 1 61 | |
| 8 | $2 3\frac{1}{2}$ | 3 71 | 0 1 31 | 1 115 | |
| 31 | 2 8 | 4 42 | 0 1 8 | 1 16% | |
| 4 | 8 0 | 5 2 | 0 1 14 | 2 2 | |
| 41 | 3 51 | 5 71 | 0 1 191 | 2 71 | |
| 5 | 3 101 | 6 41 | 0 1 241 | 2 121 | |
| 51 | 4 12 | 7 12 | 0 2 1 | $2 17\frac{3}{4}$ | |
| 6 | 4 7 | 77 | 0 2 7 | 3 3 | |
| 61 | 4 121 | 8 11 | 0 2 121 | 3 8 | |
| 7 | 5 31 | 9 11 | $0 2 17\frac{1}{2}$ | 3 131 | |
| 73 | 5 84 | 9 64 | $0 2 22\frac{5}{4}$ | 3 184 | |
| 8 | 6 0 | 10 4 | 0 3 0 | 4 4 | |
| 81 | 6 51 | 11 12 | 0 3 51 | 4 91 | |
| 9 | 6 101 | 11 61 | 0 3 101 | 4 141 | |
| 91 | 7 14 | 12 3 | 0 3 15% | 4 194 | |
| 10 | 7 7 | 13 1 | 0 3 21 | 5 5 | |
| 101 | 7 121 | 13 61 | 0 3 261 | 5 101 | |
| 11 | 8 31 | 14 31 | 1 0 31 | 5 151 | |
| 111 | 8 84 | 15 04 | 1 0 84 | 6 04 | |
| 12 | 9 0 | 15 6 | 1 0 14 | 6 6 | |
| 121 | 9 51 | 16 31 | 1 0 194 | 6 112 | |
| 13 | 9 101 | 17 01 | 1 0 24 | 6 165 | |
| 131 | 10 14 | 17 54 | 1 1 1 14 | 7 14 | |
| 14 | 10 7 | 18 3 | 1 1 7 | 17 7 | |
| 141 | 10 121 | 19 01 | 1 1 124 | 7 122 | |
| 15 | 11 31 | 19 51 | 1 1 171 | 1 174 | |
| 151 | 11 8% | 20 21 | 1 1 224 | 8 24 | |
| 16 | 12 0 | 21 0 | 1 2 0 | 8 8 | |
| 161 | 12 51 | 21 51 | 1 2 54 | 8 13 | |
| 17 | 12 101 | 22 21 | 1 2 101 | 8 184 | |
| 171 | 13 12 | 22 74 | 1 2 154 | 8 34 | |
| 18 | 13 7 | 1 23 5 | 1 2 21 | 1 0 0 | |

| | TADLE VIIII | AVE AND DEAD | WEIGHT OF DUINE | | |
|-----------------|--|-------------------|-------------------------|----------------------|--|
| LIVE | W | EIGHT OF THE | FOUR QUARTERS. | | |
| WEIGHT | Imperial Stones. Smithfield Stones. | | Cwts. | Scores. | |
| Stones. | Stones. Lbs. | Stones. Lbs. | Cwts. Qrs. Lbs. | Scores. Lbs. | |
| 181 | 13 121 | 24 21 | 1 2 261 | 9 141 | |
| 19 | 14 31 | 24 75 | 1 3 31 | 9 195 | |
| $19\frac{1}{2}$ | 14 84 | 25 44 | 1 3 84 | 10 4 | |
| 20 | 15 0 | 26 2 | 1 3 14 | 10 10 | |
| 201 | 15 51 | $26 7\frac{1}{2}$ | 1 3 191 | 10 151 | |
| 21 | 15 105 | 27 41 | 1 3 241 | 11 05 | |
| $21\frac{1}{2}$ | $16 1\frac{3}{4}$ | $28 1\frac{5}{4}$ | 2 0 1 | 11 5% | |
| 22 | 16 7 | 28 7 | 2 0 7 | 11 11 | |
| $22\frac{1}{2}$ | $16 \ 12\frac{1}{4}$ | 29 44 | $2 \ 0 \ 12\frac{1}{4}$ | $11 \ 16\frac{1}{4}$ | |
| 23 | 17 31 | 30 11 | $2 \ 0 \ 17\frac{1}{2}$ | 12 11 | |
| $23\frac{1}{2}$ | $17 8\frac{3}{4}$ | 30 6業 | $2 \ 0 \ 22\frac{3}{4}$ | $12 6_4^5$ | |
| 24 | 18 0 | 31 4 | 2 1 0 | 12 12 | |
| 241 | - 18 54 | 32 14 | $2 \ 1 \ 5\frac{1}{2}$ | $12 17\frac{1}{4}$ | |
| 20 | 18 104 | 32 61 | $2 1 10\frac{1}{2}$ | 13 21 | |
| 203 | 19 14 | 33 34 | 2 1 10% | 13 74 | |
| 20 | 19 7 | 34 1 | 2 1 21 | 13 13 | |
| 201 | 19 12 | 34 04 | 2 1 264 | 13 184 | |
| 071 | 20 03 | 00 0g | 2 2 34 | 14 35 | |
| 212 | 20 02 | 30 U% | 2 2 84 | 14 84 | |
| 991 | 21 0 | 00 0 | 2 2 14 | 14 14 | |
| 20 2 | 21 101 | 39 01 | 2 2 192 | 14 197 | |
| 201 | 22 13 | 20 0g | | 15 08 | |
| 30 | 22 7 | 30 3 | 0 9 7 | 15 15 | |
| 301 | 22 124 | 40 01 | 9 9 101 | 16 01 | |
| 31 | 23 31 | 40 51 | 2 3 171 | 16 54 | |
| 311 | 23 84 | 41 28 | 2 3 222 | 16 105 | |
| 32 | 24 0 | 42 0 | 3 0 0 | 16 16 | |
| / 321 | 24 51 | 42 51 | 8 0 51 | 17 11 | |
| 33 | 24 101 | 43 21 | 3 0 104 | 17 64 | |
| 331 | 25 11 | 43 74 | 3 0 154 | 17 114 | |
| 34 | 25 7 | 44 5 | 3 0 21 | 17 17 | |
| 341 | 25 121 | 45 21 | 3 0 261 | 18 21 | |
| 35 | 26 31 | 45 71 | 3 1 31 | 18 71 | |
| 351 | $26 8\frac{3}{4}$ | 46 44 | 3 1 81 | 18 124 | |
| 36 | 27 0 | 47 2 | 3 1 14 | 18 18 | |
| 361 | 27 54 | 47 71 | 3 1 191 . | 19 31 | |
| 37 | 27 101 | 48 41 | 3 1 241 | 19 81 | |
| 371 | 28 14 | 49 14 | $3 2 1\frac{5}{4}$ | 19 134 | |
| 38 | 28 7 | 49 7 | 8 2 7 | 19 19 | |
| 381 | 28 121 | 50 41 | $3 2 12\frac{1}{4}$ | 20 41 | |
| 39 | 29 31 | 51 11 | $3 2 17\frac{1}{2}$ | 20 91 | |
| 002 | 29 82 | 51 64 | 3 2 223 | $20 14\frac{8}{4}$ | |
| 20 | 0 0 | 02 4 | 3 3 0 | 21 0 | |
| | | H | | | |

TABLE IX.

Shows the live and dead weight of sheep, in Imperial stores of 14 lbs., in Smithfield stores of 8 lbs., in cwts., and in scores, sinking the offals.

| $\label{eq:second} \begin{array}{ c c c c c c c c c c c c c c c c c c c$ | $\begin{array}{c} \text{Scores.} \\ \hline 0 & 7 \\ 0 & 10\frac{1}{2} \\ 0 & 14 \\ 0 & 17\frac{1}{2} \\ 1 & 1 \\ 1 & 4\frac{1}{2} \\ 1 & 8 \end{array}$ |
|--|---|
| $ \begin{array}{cccccccccccccccccccccccccccccccccccc$ | $\begin{array}{c} \text{ores. Lbs.} \\ 0 & 7 \\ 0 & 10\frac{1}{2} \\ 0 & 14 \\ 0 & 17\frac{1}{7} \\ 1 & 1 \\ 1 & 4\frac{1}{2} \\ 1 & 8 \end{array}$ |
| $\begin{array}{cccccccccccccccccccccccccccccccccccc$ | $\begin{array}{cccc} 0 & 7 \\ 0 & 10\frac{1}{2} \\ 0 & 14 \\ 0 & 17\frac{1}{3} \\ 1 & 1 \\ 1 & 4\frac{1}{2} \\ 1 & 8 \end{array}$ |
| $\begin{array}{c ccccccccccccccccccccccccccccccccccc$ | $\begin{array}{cccc} 0 & 10\frac{1}{2} \\ 0 & 14 \\ 0 & 17\frac{1}{2} \\ 1 & 1 \\ 1 & 4\frac{1}{2} \\ 1 & 8 \end{array}$ |
| $\begin{array}{c ccccccccccccccccccccccccccccccccccc$ | $\begin{array}{cccc} 0 & 14 \\ 0 & 17\frac{1}{2} \\ 1 & 1 \\ 1 & 4\frac{1}{2} \\ 1 & 8 \end{array}$ |
| $\begin{array}{cccccccccccccccccccccccccccccccccccc$ | $\begin{array}{cccc} 0 & 17\frac{1}{2} \\ 1 & 1 \\ 1 & 4\frac{1}{2} \\ 1 & 8 \end{array}$ |
| $\begin{array}{c ccccccccccccccccccccccccccccccccccc$ | $ \begin{array}{ccc} 1 & 1 \\ 1 & 4\frac{1}{2} \\ 1 & 8 \end{array} $ |
| $\begin{array}{c ccccccccccccccccccccccccccccccccccc$ | 1 45 |
| | 1 8 |
| | |
| $\frac{1}{2}$ $\frac{1}$ | 1 112 |
| | 1 181 |
| | 2 2 |
| | 2 51 |
| 7^2 3 7 8 1 0 1 21 | 2 0 |
| 71 3 101 6 41 0 1 241 | 2 121 |
| 8 4 0 7 0 0 2 0 | 2 16 |
| 81 4 31 7 31 0 2 31 | 2 193 |
| 9^{*} 4 7 7 7 0 2 7 | 3 3 |
| 91 4 101 8 21 0 2 101 | 3 61 |
| 10 5 0 8 6 0 2 14 | 3 10 |
| $10\frac{1}{2}$ 5 $3\frac{1}{2}$ 9 $1\frac{1}{2}$ 0 2 $17\frac{1}{2}$ | 3 131 |
| 11 5 7 9 5 0 2 21 | 3 17 |
| $11\frac{1}{3}$ 5 $10\frac{1}{2}$ 10 $0\frac{1}{3}$ 0 2 $24\frac{1}{2}$ | 4 01 |
| | 4 4 |
| $12\frac{1}{2}$ 0 $3\frac{1}{2}$ 10 $7\frac{1}{2}$ 0 3 $3\frac{1}{2}$ | 4 75 |
| | 4 14 |
| | 4 19 |
| | 5 11 |
| 149 $1 09$ $12 09$ $0 0 11215$ $7 7$ $13 1$ $0 3 91$ | 5 5 |
| 151 7 101 13 41 0 3 241 | 5 81 |
| 16 8 0 14 0 1 0 0 | 5 12 |
| 161 8 31 14 31 1 0 S1 | 5 15% |
| 17 8 7 14 7 1 0 7 | 5 19 |
| 171 8 101 15 21 1 0 101 | 6 21 |
| 18 9 0 15 6 1 0 14 | 6 6 |
| 181 9 81 16 11 1 0 171 | 6 91 |
| 10 9 7 16 5 1 0 21 | 6 13 |
| $19\frac{1}{2}$ 9 $10\frac{1}{2}$ 17 $0\frac{1}{2}$ 1 0 $24\frac{1}{2}$ | 6 161 |
| 20 10 0 17 4 1 1 0 | 7 0 |

TABLE X.

Shows with selective on requiralexy wrights for the factors of the

Is the left-hand column of the Table are placed the Imperial stones, opposite which, in the other columns, under their respective headings, is found the relative or equivalent weight of the Imperial stones, in stones and pounds of the weights above named.

The Dutch and Trone stones are calculated at 16 of their own ounces to the pound, and 16 of these pounds to the stone, and the relative weight is set down to the nearest quarter of a pound, either over or under the exact result.

Nors. See Remarks on these stones in the Table of Weights and Measures; and the relative weight of the Imperial pound, and several of these pounds, in Table XIV.

EXAMPLE. Required the weight in Glasgow Trone stones of an animal which weighs 78 Imperial stones?

| In the Table, or | posite 3 | 9, hal | f of | 78 | Imper | ial | Sts. | Lbs. |
|------------------|----------|--------|------|-------|-------|-----|------|------|
| stones, under " | Glasgow | stones | ," s | tands | | | 24 | 42 |
| which multiply b | y . | | • | • | | * | | 2 |

Glasgow Trone weight, . . 48 81

If an equivalent for Imperial stones is wanted in Trone stones differing in weight from those in the Table, multiply the given number of Imperial stones by 14, and divide the product by the number of Imperial pounds in the required Trone stone, the quotient is the equivalent in stones of that weight; if there is a remainder, multiply it by 14, and divide by the former divisor, the quotient is pounds; if there is still a remainder, multiply by 16, and divide by the same divisor for ounces.

To find an equivalent for Imperial pounds, in Trone pounds, multiply the Imperial pounds by 16, and divide the product by the number of Imperial ounces in the given Trone pound, the quotient is pounds of that weight; if there is a remainder, multiply it by 16, and divide by the former divisor for onnees.

To find an equivalent for Trone stones in Imperial stones, multiply the given Trone stones by the number of Imperial pounds in its stone (which is always the same as the number of 112 TABLE X .- EQUIVALENT WEIGHT OF IMPERIAL STONES, ETC.

Imperial ounces in its pound), and divide the product by 14, the quotient is the equivalent in Imperial stones; the remainder, if any, is Imperial pounds.

To find an equivalent for Trone pounds, in Imperial pounds, multiply the given Trone pounds by the number of the Imperial ounces in its pound, and divide the product by 16, the quotient is the equivalent in Imperial pounds; if there is a remainder, it is Imperial ounces.

EXAMPLES.

| 1. Required the equivalent of 15 Imperial stones, in Berwick- shire Trone stones of 23 Im- perial pounds? | 2. Required the equivalent of 91 Edinburgh Trone stones, in Imperial stones? |
|---|--|
| Imp. Stones, | Edin. Stones. |
| 15 | 9 <u>1</u> |
| 14 | 22 |
| 60 | 14)209 (14 13, or 14 stones |
| 15 | 14 13 lbs. Imperial. |
| 23)210 (9 2, or 9 stones 22 | 69 |
| 207 Ibs. Berwickshire | 56 |
| 8 Irone. | - 18 |
| 16 | |
| 48 | |
| 46 | |
| 2 | |
| 23 | A The standard sector back of |
| 3. Required the equivalent of | 4. Required the equivalent of |
| 13 Imperial pounds, in Glasgow | To Ayramite pounds, in imperial |
| There are a second of the seco | nounde? |
| Trone pounds? | pounds? |
| Trone pounds? On account of the fraction, multiply the ounces in the two | Ayr. Lbs. |
| Trone pounds? On account of the fraction, multiply the ounces in the two pounds by $2 = 32$ and 45 . | pounds? Ayr. Lbs. 15 24 |
| Trone pounds? On account of the fraction, multiply the ounces in the two pounds by 2 = 32 and 45. Imp. Lbs. | pounds? Ayr. Lbs. 15 24 |
| Trone pounds? On account of the fraction, multiply the ounces in the two pounds by 2 = 32 and 45. Imp. Lbs. 13 | pounds? Ayr. Lbs. 15 24 60 80 |
| Trone pounds? On account of the fraction, multiply the ounces in the two pounds by 2 = 32 and 45. Imp. Lbs. 13 32 | pounds? Ayr. Lbs. 15 24 |
| Trone pounds? On account of the fraction, multiply the ounces in the two pounds by $2 = 32$ and 45. Imp. Lts. 13 $\frac{32}{26}$ | pounds f Ayr. Lbs. 15 24 |
| Trone pounds? On account of the fraction, multiply the ounces in the two pounds by $2 = 32$ and 45. Imp. Les. 13 $\frac{32}{26}$ $\frac{32}{26}$ 89 | pounds f Ayr. Iba. 1δ 24 60 10) $360(223$ Imperial pounds, $\frac{2}{30}$ $\frac{2}{30}$ |
| Trone pounds? On account of the fraction, multiply the ounces in the two pounds by 2 \approx 32 and 45. Imp. Lbs. 18 32 326 326 45) 416 (9 \$\$\$\$, or nearly 9} | $\begin{array}{c} \text{pounds} \\ \text{Ayr. Lbs.} \\ 15 \\ 24 \\ 60 \\ 10 \\ 300 \\ 300 \\ 22 \\ \frac{80}{40} \\ 32 \end{array} \text{Imperial pounds.}$ |
| Trone pounds? On account of the fraction, multiply the ounces in the two pounds by 2 = | pounds? Ayr. Das. 15 24 60 300 (221 Imperial pounds. 82 40 32 58 |
| $\begin{array}{l} \mbox{Trone pounds}^{2} & \mbox{On account of the fraction,}\\ \mbox{On account of the fraction,}\\ \mbox{multiply the ounces in the two pounds by 2 = 2 and 45. \\ \mbox{Imp. Lbs.}\\ \mbox{13} & \mbox{32} & \mbox{33} & \mbox{32} & 32$ | pounds? Ayr. Das. 15 24 60 80 10) 3866 (221 Imperial pounds. $\frac{32}{46}$ $\frac{32}{56}$ $\frac{32}{56} = 1$ |
| $ \begin{array}{c} \mbox{Trone pounds} \\ \mbox{On account of the fraction,} \\ \mbox{On account of the fraction,} \\ \mbox{multiply the ounces in the two pounds by 2 = 32 and 45.} \\ \mbox{Imp. Ios.} \\ \mbox{Imp. Ios.} \\ \mbox{Imp. Ios.} \\ \mbox{Signature} \\ Signature$ | $\begin{array}{l} \text{pounds} \\ \text{Ayr. Lis.} \\ 16 \\ 16 \\ \frac{16}{24} \\ \frac{16}{360} \\ 10 \\ 13 \frac{360}{22\frac{1}{2}} \text{ Imperial pounds.} \\ \frac{82}{40} \\ \frac{32}{\frac{8}{16}} \\ \frac{32}{\frac{8}{16}} \\ \end{array}$ |
| $ \begin{array}{c} \mbox{Trone pounds} \\ \mbox{On account of the fraction,} \\ \mbox{On account of the fraction,} \\ \mbox{multiply the ounces in the two pounds by 2 = 23 and 45.} \\ \mbox{Inp. Ios.} \\ Inp. Ios.$ | $\begin{array}{l} \text{pounds} \\ \text{Ayr. Da.} \\ 15 \\ \frac{16}{24} \\ \frac{30}{60} \\ 16 \\ \frac{30}{260} (22\frac{1}{2} \text{ Imperial pounds.} \\ \frac{32}{40} \\ \frac{32}{8} \\ \frac{32}{16} \\ \frac{32}{8} \\ \frac{3}{16} \\ \frac{3}{8} \\ \frac{3}{16} \\ \frac{3}{8} \\ \frac{3}{16} \end{array}$ |
| $\begin{array}{c} \mbox{Trone pounds} \\ \mbox{On account of the fraction,} \\ \mbox{On account of the two pounds by 2 = 05 and 45.} \\ \mbox{Imp. Jas.} \\ \mbox{1} \\ \mbox{2} \\ \mbox{2} \\ \mbox{2} \\ \mbox{3} \\ \mbox{2} \\ \mbox{3} \ \mbox{3} \\ \mbox{3} \ \mbox{3} \\ \mbox{3} \\ \mbox{3} \\ \mbox{3} \\ \mbox{3} \ \mbox{3} \ \m$ | $\begin{array}{l} \text{pounds H} \\ & \text{Ar. Dis.} \\ & \frac{12}{16} \\ & \frac{24}{60} \\ & \frac{300}{60} \\ 10 \\ & \frac{300}{120} \\ & \frac{32}{4} \\ & \frac{32}{16} \\ $ |
| $ \begin{array}{c} \mbox{Trone pounds} \\ \mbox{On account of the fraction,} \\ \mbox{On account of the fraction,} \\ \mbox{On account of the two pounds by 2 = 20 and 45.} \\ \mbox{Inp. Das.} \\ Inp. Carrier of the two pounds of two pounds o$ | $\begin{array}{llllllllllllllllllllllllllllllllllll$ |
| $\begin{array}{c} \mbox{Trone pounds} \\ \mbox{On account of the fraction,} \\ \mbox{On account of the fraction,} \\ \mbox{On account of the two pounds by 2 = 05 and 45.} \\ \mbox{Imp. Jas.} \\ \mbox{33} \\ \mbox{33} \\ \mbox{34} \\ \mbox{35} \\ \mbox{35} \\ \mbox{35} \\ \mbox{35} \\ \mbox{36} \ \mbox{36} \\ \mbox{36} \ 36$ | $\begin{array}{l} \text{pounds} Y \\ \text{Ayr, Da,} \\ 124 \\ \hline 24 \\ \hline 20 \\ 10 \) \frac{300}{300} \ 22\frac{1}{2} \text{ Imperial pounds}, \\ \frac{32}{40} \\ \frac{32}{8} \\ \frac{32}{16} \\ \hline 16 \\ \end{array}$ |

| TABLE XEQUIVALENT WEIGHT OF IMPERIAL STONES, ETC. 113 | | | | | | | |
|---|-------------------|---------------------|-------------------|--------------------|----------------------|---------------|-------------|
| Impl. Stone | Dutch Stone, | Edinburgh Stone, | Glasgow Stone, | Ayrshire Stone, | Smithfield Stone, | The Score, | The Cut., |
| 14 Lbs. | 17 17 Lta. | 22 Lbs. | 22] Lbs. | 24 Lbs. | 8 Lbs. | 20 Lbs. | The Live. |
| Stones. | Sts. Lbs. | Sta. Lbs. | Sta. Lts. | Sts. Lbz. | Sts. Lts. | Ses. Lts. | CWL Qr. Lb. |
| 1 | 0 124 | 0 104 | 0 10 | 0 94 | 1.6 | 0 14 | 0014 |
| 2 | 1 94 | 1 44 | 1 4 | 1 24 | 34 | 1 8 | 010 |
| 3 | 2 65 | 1 144 | 1 134 | 1 12 | 52 | 2 2 | 0 1 14 |
| 4 | 3 34 | 2 84 | 2 74 | 2 31 | 70 | 2 16 | 020 |
| D | 4 0 | 3 3 | 3 14 | 2 144 | 86 | 3 10 | 0214 |
| 0 | 4 124 | 3 13 | 3 114 | 3 8 | 10 4 | 4 4 | 0 3 0 |
| 2 | 0 94 | 4 14 | 4 04 | 4 14 | 12 2 | 4 18 | 1 0 0 |
| 8 | 0 05 | 0 15 | 4 104 | 4 10% | 14 0 | 0 12 | 1014 |
| 10 | 1 01 | 0 112 | 0 93 | 0 4 | 10 0 | 0 0 | 1 1 1 0 |
| 11 | 0 108 | 0 01 | 0 00 | 0 107 | 10 9 | 7 14 | 1 1 14 |
| 19 | 0 01 | 7 101 | 7 71 | 7 0 | 91 0 | 0 0 | 1 2 0 |
| TS | 10 81 | 8 AI | 9 11 | 7 01 | 99 B | 0 0 | 1 2 14 |
| 14 | 11 81 | 8 141 | 8 111 | 8 93 | 94 4 | 9 18 | 1 3 0 |
| 15 | 12 0 | 0 83 | 0 51 | 8 12 | 26 9 | 10 10 | 1 3 14 |
| 16 | 12 128 | 10 3 | 9 151 | 9 51 | 28 0 | 11 4 | 200 |
| 17 | 13 91 | 10 13 | 10 01 | 9 143 | 20 6 | 11 18 | 2 0 14 |
| 18 | 14 61 | 11 71 | 11 31 | 10 8 | 31 4 | 12 12 | 210 |
| 19 | 15 31 | 12 11 | 11 13 | 11 11 | 33 2 | 13 6 | 2 1 14 |
| 20 | 16 0 | 12 114 | 12 7 | 11 10 | 35 0 | 14 0 | 220 |
| 21 | 16 12\$ | 13 54 | 13 1 | 12 4 | 36 6 | 14 14 | 2 2 14 |
| 22 | 17 91 | 14 0 | 13 11 | 12 131 | 38 4 | 15 8 | 230 |
| 23 | 18 61 | 14 101 | 14 5 | 13 67 | 40 2 | 16 2 | 2 3 14 |
| 24 | 19 31 | 15 41 | 14 15 | 14 0 | 42 0 | 16 16 | 300 |
| 25 | 20 0 | 15 141 | 15 9 | 14 91 | 43 6 | 17 10 | 3 0 14 |
| 26 | 20 123 | 16 84 | 16 24 | 15 24 | 45 4 | 18 4 | 310 |
| 27 | 21 91 | 17 3 | 16 124 | 15 12 | 47 2 | 18 18 | 3 1 14 |
| 28 | 22 61 | 17 13 | 17 62 | 16 51 | 49 0 | 19 12 | 320 |
| 29 | $23 3\frac{1}{4}$ | 18 71 | 18 07 | 16 14 | 50 6 | 20 6 | 3 2 14 |
| 30 | 24 0 | 19 11 | 18 10 1 | 17 8 | 52 4 | 21 0 | 330 |
| 31 | 24 124 | 19 114 | 19 41 | 18 1 | 54 2 | 21 14 | 3 3 14 |
| 32 | 25 91 | 20 54 | 19 14 | 18 104 | 56 0 | 22 8 | 400 |
| 33 | 26 61 | 21 0 | 20 81 | 19 4 | 57 6 | 23 2 | 4 0 14 |
| 34 | 27 31 | 21 103 | 21 21 | 19 13 | 59 4 | 23 16 | 410 |
| 35 | 28 0 | 22 44 | 21 124 | 20 64 | 61 2 | 24 10 | 4 1 14 |
| 36 | 28 124 | 22 14 | 22 65 | 21 0 | 63 0 | 20 4 | 4 2 0 |
| 07 | 20 91 | 23 84 | 23 04 | 21 94 | 04 6 | 20 18 | 4 2 14 |
| 38 | 30 64 | 24 3 | 23 104 | 22 24 | 66 4 | 26 12 | 430 |
| 40 | 20 0 | 24 13 | 24 42 | 22 12 | 08 2 | 27 6 | 5 0 0 |
| 20 | 40 0 | 20 74 | 24 142 | 20 01 | 07 4 | 20 0 | 810 |
| 00 | 10 0 | 01 13 | 01 12 | 28 24 | 105 0 | 49 0 | 790 |
| 70 | 58 0 | 44 03 | 19 0 | 40 191 | 199 4 | 10 0 | 83 0 |
| 80 | BA 0 | 50 141 | 40 191 | 48 103 | 140 0 | 58 0 | 10 0 0 |
| 00 | 79 0 | 57 41 | 56 0 | 59 8 | 157 4 | 69 0 | 11 1 0 |
| 100 | 80 0 | 63 101 | 62 21 | 58 51 | 175 0 | 70 0 | 12 2 0 |
| 100 | 000 | 00 102 | 102 08 | 00 01 | | 10 0 | |

TABLE XI.

Shows the melastre of bound states trained from the 1. To 12. For Imperating stores of 14 lines, in Scotton Thores on Duron stores or 17<u>1</u> internations, in Consumon Thores stores or 22 internations, premating, in Glassow Thore stores or 22 i Internations, in Scotton on South Thores Stores or 24 internations, in Scotton on Southernet Stores or 8 internations, in Scotton 20 Internations, prematic lines, with our wort, or 112 internations.

In the left-hand column are placed the prices per Imperial stone; opposite which, in the other columns, under their respective headings, is found the relative or equivalent price of the other weights.

For example, if the Imperial stone is worth 5s. 3d., the Dutch stone, at an equivalent rate, is worth 0s. $6\frac{3}{2}d$., the Edinburgh stone 8s. 3d., the Glasgow stone 8s. $5\frac{1}{2}d$., the Ayrshire stone 9s., the Smithfield stone 3s., the score 7s. 6d., and the evt. 42s.

In calculating the Table the equivalent price is set down to the nearest farthing over or under the exact result.

The price of one weight is converted into an equivalent price in another, in the following manner :---

To convert the price por Imperial stone into an equivalent price per Trone stone, multiply the given price per Imperial stone by the number of Imperial pounds in the given Trone stone, divide the product by 14; the number of pounds in the Imperial stone, and the quotient is the equivalent price sought.

To convert the price per Impérial lb. into an equivalent price per Trone lb., multiply the given price per Imperial lb. by the number of Imperial ounces in the given Trone lb., divide the product by 16, the number of ounces in the Imperial lb., and the quotient is the equivalent price sought.

To convert the price per Trone stone into an equivalent price per Imperial stone; multiply the given price per Trone stone by 14, the number of pounds in the Imperial stone, divide the product by the number of Imperial pounds in the Trone stone, the quotient is the equivalent price sought.

To convert the price per Trone D. into an equivalent price per Imperial lb., multiply the given price per Trone lb. by 16, the ounces in the Imperial lb., divide the product by the number of Imperial ounces in the given Trone pound, and the quotient is the equivalent price sourch.

| TABLE XI EQUIVALENT PRIC | es of imperial stones, etc. 115 | | | | | |
|--|---|--|--|--|--|--|
| Exas | IPLES. | | | | | |
| 1. At the rate of 3s. 9d. per Imperial stone, required the equivalent price per Trone stone of 26 Imperial lbs.? Reduce the rate to pence = 105 | | | | | | |
| $\frac{\overline{630}}{210}$ | | | | | | |
| 14) 273 14 | 14) 2730 (195 pence = 16s. 3d. per stone. 14 | | | | | |
| 138 126 | | | | | | |
| 777 | 0 | | | | | |
| 2. At the rate of 11s. 6d. per Ayrshire stone of 24 Imperial lbs., required the equivalent price per Imperial stone? | | | | | | |
| 1 reduce the rate to pence = 13 | Reduce the rate to pence = 138 . 14 | | | | | |
| 552 | | | | | | |
| $\frac{138}{1032}$ (901 mmm - 80 91 / | | | | | | |
| 192 | 2 (00 g pence - 08. 0 gut | | | | | |
| 1 | 2 | | | | | |
| | 4 Q | | | | | |
| 4 | 8 | | | | | |
| At the rate of 5½d. per Imperial pound, required the equivalent price per Trone pound of 22 Imperial ounces? | 4. At the rate of 10 <i>d.</i> per Trone pound of 22 ¹ / ₂ Imperial ounces, required the price per Imperial pound? | | | | | |
| $22 \\ 5\frac{1}{2}$ | 10 32 | | | | | |
| 16) $\overline{121}$ (7 ¹ / ₂ pence and $\frac{1}{4}$ of a 4b) $\overline{320}$ (7 pence and nearly 112 farthing. 315 half a farthing. | | | | | | |
| 9 | 5 . 4 | | | | | |
| 36 | 20 | | | | | |
| 32 | 45 | | | | | |
| $\frac{4}{16} = \frac{1}{4}$ | | | | | | |
| Nove. See Table XIII. for | the relative value of the Im- | | | | | |
| perial pound, and the Dutch and Scotch Trone pounds; and | | | | | | |

Table XII. for the relative price per Imperial, Dutch, Scotch Trone, and Smithfield stones, the score, and the cwt., at certain rates per Imperial pound.

116 TABLE XI .- EQUIVALENT PRICES OF IMPERIAL STONES, ETC.

| Impl | Datch | Edinburgh | Glasgow | Avrahim | Smithfield | | |
|--------|--------------|-------------------|-------------------|--------------|------------|------------------|---------|
| Stone. | Stone. | Stone. Tr. Stone. | | Stone. | Stone. | Score. | Cwt. |
| s. d. | 8. d. 1 9 | 1 63 | 1 d. 1 71 | 1 d. 1 81 | 1. d. | a. d. 1 51 | £ 1. d. |
| 1 3 | 1 64 | 1 111 | 2 0 | 2 14 | 0 81 | 1 91 | 0 10 0 |
| 16 | 1 101 | 2 41 | 2 5 | 2 61 | 0 101 | 2 1 | 0 12 0 |
| 1 9 | 2 21 | 2 9 | 2 94 | 3 0 | 1 0 | 2 6 | 0 14 0 |
| 2 0 | 2 6 | 3 12 | 3 21 | 3 51 | 1 12 | 2 101 | 0 16 0 |
| 2 3 | 2 9% | 3 61 | 3 71 | 3 101 | 1 31 | 3 21 | 0 18 0 |
| 2 6 | 3 11/2 | 3 111 | 4 01 | 4 31 | 1 51 | 3 63 | 1 0 0 |
| 29 | 3 51 | 4 34 | 4 5 | 4 85 | 1 64 | 3 111 | 1 2 0 |
| 30 | 3 9 | 4 81 | 4 94 | 5 14 | 1 84 | 4 34 | 1 4 0 |
| 33 | 4 04 | 0 14 | 5 22 | 0 04 | 1 104 | 4 14 | 1 0 0 |
| 0 6 | 4 45 | 5 103 | 8 01 | 0 0 | 2 0 | 5 41 | 1 10 0 |
| 4 0 | 5 0 | 6 31 | 6 51 | 6 101 | 2 31 | 5 81 | 1 12 0 |
| 4 3 | 5 34 | 6 81 | 6 10 | 7 31 | 2 51 | 6 04 | 114 0 |
| 4 6 | 5 71 | 7 0 | 7 24 | 7 81 | 2 67 | 6 51 | 1 16 0 |
| 4 9 | 5 111 | 7 51 | 7 71 | 8 1 | 2 81 | 6 91 | 1 18 0 |
| 5 0 | 6 3 | 7 101 | 8 01 | 8 64 | 2 101 | 7 14 | 2 0 0 |
| 53 | 6 67 | 8 3 | 8 51 | 9 0 | 3 0 | 7 6 | 2 2 0 |
| 56 | 6 101 | 8 74 | 8 10 | 9 51 | 3 13 | 7 101 | 2 4 0 |
| 59 | 7 21 | $9 0\frac{1}{2}$ | 9 3 | 9 101 | 3 31 | 8 21 | 2 6 0 |
| 6 0 | 7 6 | 9 54 | 9 74 | 10 31 | 3 5 | 8 64 | 280 |
| 6 3 | 7 94 | 9 94 | 10 01 | 10 81 | 3 64 | 811 | 2 10 0 |
| 6 6 | 8 13 | 10 25 | 10 54 | 11 14 | 3 85 | 9 05 | 212 0 |
| 0 9 | 8 04 | 10 72 | 10 102 | 11 02 | 3 104 | 10 0 | 216 0 |
| 7 8 | 0 08 | 11 43 | 11 73 | 12 51 | 4 18 | 10 41 | 2 18 0 |
| 7 6 | 9 41 | 11 91 | 12 0 | 12 101 | 4 31 | 10 81 | 3 0 0 |
| 79 | 9 81 | 12 21 | 12 51 | 13 34 | 4 51 | 11 04 | 3 2 0 |
| 80 | 10 0 | 12 6 | 12 101 | 13 81 | 4 61 | 11 51 | 3 4 0 |
| 83 | 10 32 | 12 111 | 13 3 | 14 14 | 4 81 | 11 91 | 3 6 0 |
| 86 | 10 75 | 13 41 | 13 8 | 14 62 | 4 101 | $12 1_{\pm}^{3}$ | 3 8 0 |
| 89 | 10 111 | 13 9 | 14 03 | 15 0 | 5 0 | 12 6 | 3 10 0 |
| 9 0 | 11 3 | 14 14 | 14 51 | 15 51 | 5 11 | 12 101 | 312 0 |
| 93 | 11 64 | 14 64 | 14 105 | 15 104 | 5 35 | 13 23 | 216 0 |
| 90 | 11 105 | 14 114 | 10 34 | 10 03 | 0 01 | 19 111 | 3 18 0 |
| 10 0 | 19 6 | 15 81 | 10 0 | 10 03 | 5 81 | 14 34 | 4 0 0 |
| 10 0 | 12 08 | 18 11 | 16 55 | 17 68 | 5 101 | 14 74 | 4 2 0 |
| 10 6 | 13 11 | 16 6 | 16 101 | 18 0 | 6 0 | 15 0 | 4 4 0 |
| 10 9 | 13 51 | 16 10% | 17 31 | 18 51 | 6 17 | 15 41 | 4 6 0 |
| 11 0 | 13 9 | 17 31 | 17 81 | 18 101 | 6 31 | 15 81 | 4 8 0 |
| 11 3 | 14 0% | 17 81 | 18 1 | 19 31 | 6 51 | 16 04 | 410 0 |
| 11 6 | 14 41 | 18 04 | 18 5% | 19 81 | 6 61 | 16 51 | 412 0 |
| 11 9 | 14 81 | 18 51 | 18 101 | 20 1 | 6 81 | 16 91 | 4140 |
| 12 0 | 15 0 | 18 101 | $19 3\frac{1}{2}$ | 20 64 | 6 101 | 17 12 | 4 16 0 |
| | | | | | | | |

TABLE XII.

Shows the relative value or price of the Imperial, Dutch, the Edinburgh, Glasgow, and Atreshine Trone, and the Smithfield stones, the score, and the cwt., at rates from 4d. to 18, per Imperial pound.

TπIS, and the two following Tables, are so simple that they require little explanation; we may, however, take an example from each, beginning with Table XII.

What is the value or price of 1 stone of each of the denominations in the Table, a score, and a cwt., at the rate of $4\frac{1}{3}d$. per Imperial pound?

Opposite $4\frac{1}{2}d$. In the left-hand column, under their respective headings, stands 5s. 3d. per Imperial stone, 6s. $6\frac{1}{2}d$. per Dutch stone, 8s. 3d. per Edinburgh Trone stone, 5s. $5\frac{1}{2}d$. per Glasgow Trone stone, 9s. per Ayrhirse Trone stone, 3s. per Smithfield stone, 7s. 6d. per score, and ± 2 , 2s. per evt.

EXAMPLE FROM TABLE XIII

What is the value of 1 lb. of each denomination in the Table, at the rate of $5\frac{1}{2}d$. per Imperial lb.?

Opposite $5\frac{1}{2}d$., in the left-hand column, under their respective headings, stands 6d. per lb. Duteb, $7\frac{1}{2}d$. per lb. Edinburgh Trone, $7\frac{3}{2}d$. per lb. Glasgow Trone, and $8\frac{1}{2}d$. per lb. Ayrshire Trone.

EXAMPLE FROM TABLE XIV.

Required the equivalent weight of 9 Imperial lbs. in each of the other denominations in the Table?

Opposite 9 lbs., in the left-hand column, under their respective headings, stands 8 lbs. 3³/₂ oz. Dutch, 6 lbs. 8³/₃ oz. Edinburgh Trone, 6 lbs. 6³/₃ oz. Glas, ow Trone, and 6 lbs. Ayrshire Trone,

Tables XII. and XIII. are calculated to the nearest farthing; and Table XIV. to the nearest quarter of an ounce, either over or under.

| 118 TABLE XIL-RELATIVE FRICE OF IMP. AND TRONE-STONES, MRC. | | | | | | | | | | | |
|---|--------------------|------------------|---------------------|-----------------------|-------------------------|---------------------------|---------------|----------|--|--|--|
| Bite per I. Lb, | Imperial Stone. | Dutch Stone. | Edin. Tr. Stone. | Glasgow Tr. Stone. | Ayr. Trone Stone. | Smith- field Stone- | The Score. | The Owt. | | | |
| d. 01 | 1 d. 0 31 | s. d. 0 41 | a d. 0 51 | a d 0 51 | s. d. 0 6 | 1. d. | 1 d. | £ s. d. | | | |
| 01 | $0 7^2$ | 0 84 | 0 11 | 0 11 | 1 0 | 0 4 | 0 10 | 0 4 8 | | | |
| 04 | 0 101 | 1 1 | 1 41 | 1 4 | 16 | 0 6 | 1 3 | 070 | | | |
| 12 | 1 2 | 1 51 | 1 10 | 1 101 | 2 0 | 0 8 | 18 | 0 9 4 | | | |
| 11 | 1 51 | 1 9% | 2 31 | 2 4 | 26 | 0 10 | 2 1 | 0118 | | | |
| 11 | 1 9 | 2 21 | 2 9 | 2 94 | 3 0 | 1 0 | 2 6 | 0140 | | | |
| 14 | $2 0\frac{1}{2}$ | $2 6\frac{1}{2}$ | $3 2\frac{1}{2}$ | 3 34 | 3 6 | 1 2 | 2 11 | 0 16 4 | | | |
| 2 | 2 4 | 2 11 | 3 8 | 3 9 | 4 0 | 1 4 | 3 4 | 0 18 8 | | | |
| 21 | 2 71 | 3 34 | 4 11 | 4 25 | 46 | 1 6 | 3 9 | 1 1 0 | | | |
| 21 | 2 11 | 3 74 | 4 7 | 4 84 | 50 | 1 8 | 4 2 | 1 3 4 | | | |
| 24 | 3 21 | 4 0 | 0 01 | 0 1% | 56 | 1 10 | 4 7 | 1 0 0 | | | |
| 3 | 0 01 | 4 43 | 5 111 | 0 12 | 00 | 2 0 | 5 5 | 1 10 4 | | | |
| 01 | 0 00 | 2 01 | 8 5 | 6 6S | 7 0 | 2 4 | 510 | 1 12 8 | | | |
| 00 | 4 41 | 5 51 | 6 101 | 7 01 | 7 6 | 2 6 | 6 3 | 1 15 0. | | | |
| 4 | 4 8 | 5 10 | 7 4 | 7 6 | 8.0 | 2 8 | 6 8 | 117 4 | | | |
| 41 | 4 111 | 6 21 | 7 91 | 7 111 | 8 6 | 2 10 | 7 1 | 1198 | | | |
| 44 | 5 3 | 6 6 | 8 3 | 8 51 | 9 0 | 3 0 | 7 6 | 2 2 0 | | | |
| 44 | 5 61 | 6 11 | 8 81 | 8 103 | 96 | 3 2 | 711 | 2 4 4 | | | |
| 5 | 5 10 | 7 31 | 9 2 | 9 41 | 10 0 | 3 4 | 8 4 | 2 6 8 | | | |
| 51 | $6 1\frac{1}{2}$ | 7 7 | 9 71 | 9 10 | 10 6 | 3 6 | 8 9 | 290 | | | |
| $5\frac{1}{2}$ | 6 5 | 8 01 | 10 1 | 10 34 | 11 0 | 3 8 | 9 2 | 2 11 4 | | | |
| 51 | 6 81 | 8 41 | $10 \ 6\frac{1}{2}$ | 10 94 | 11 6 | 3 10 | 97 | 2138 | | | |
| 6 | 7 0 | 8 9 | 11 0 | 11 3 | 12 0 | 4 0 | 10 0 | 2 16 0 | | | |
| 64 | 7 31 | 9 14 | 11 55 | 11 84 | 12 6 | 4 2 | 10 5 | 218 4 | | | |
| 65 | 7 7 | 9 5% | 11 11 | 12 21 | 13 0 | 4 4 | 10 10 | 3 0 0 | | | |
| 0% | 7 104 | 9 10 | 12 43 | 12 12 | 10 0 | 4 0 | 11 0 | 9 5 4 | | | |
| 71 | 8 51 | 10 65 | 13 31 | 13 7 | 14 6 | 4 10 | 12 1 | 3 7 8 | | | |
| 17 | 8 9 | 10 111 | 13 9 | 14 08 | 15 0 | 5 0 | 12 6 | 3 10 0 | | | |
| 77 | 9 01 | 11 31 | 14 21 | 14 6 | 15 6 | 5 2 | 12 11 | 312 4 | | | |
| 8 | 9 4 | 11 8 | 14 8 | 15 0 | 16 0 | 5 4 | 13 4 | 3148 | | | |
| 81 | 9 71 | 12 01 | 15 11 | 15 51 | 16 6 | 5 6 | 13 9 | 317 0 | | | |
| 81 | 9 11 | 12 44 | 15 7 | 15 11 | 17 0 | 5 8 | 14 2 | 3 19 4 | | | |
| 81 | $10 2\frac{1}{2}$ | 12 9 | 16 01 | 16 44 | 17 6 | 5 10 | 14 7 | 4 1 8 | | | |
| 9 | 10 6 | 13 11 | 16 6 | 16 101 | 18 0 | 6 0 | 15 0 | 4 4 0 | | | |
| 91 | 10 91 | 13 54 | 16 111 | 17 4 | 18 6 | 6 2 | 15 5 | 4 6 4 | | | |
| 91 | 11 1 | 13 10 | 17 5 | 17 94 | 19 0 | 6 4 | 15 10 | 4 8 8 | | | |
| 102 | 11 41 | 14 21 | 17 101 | 18 34 | 19 6 | 6 6 | 10 3 | 4 19 4 | | | |
| 10 | 11 8 | 14 7 | 18 4 | 18 9 | 20 0 | 0 8 | 10 8 | 4 15 8 | | | |
| 101 | 10 2 | 14 112 | 10 93 | 10 81 | 20 0 | 7 0 | 17 6 | 4 18 0 | | | |
| 105 | 12 61 | 15 8 | 19 81 | 20 18 | 21 6 | 7 2 | 17 11 | 504 | | | |
| 11 | 12 10 | 16 01 | 20 2 | 20 71 | 22 0 | 7 4 | 18 4 | 5 2 8 | | | |
| 111 | 13 5 | 16 91 | 21 1 | 21 6 | 23 0 | 7 8 | 19 2 | 574 | | | |
| 12 | 14 0 | 17 6 | 22 0 | 22 6 | 24 0 | 3 0 | 20 0 | 5 12 0 | | | |
| | | | - | | | | | | | | |

.

TABLE XIII.

Shows the relative value or price of the Imperial, Dutch and Edinburgh, Glascow, and Ayrshire Trone pounds, from \$\frac{1}{d}\$. to 1\$, per Imperial pound.

| Impl. Lbs. | Dutch Lbs. | Edin. Tr. Lbs. | Glasrow Tr. Lbs. | Ayr. Tr. Lbs. | Impl. Lbs. | Dutch Lbs. | Edin. Tr. Lbs. | Ginsgow Tr. Lbs. | Ayr. Tr. Lbs. |
|-----------------|---------------------|---|---|-----------------------|------------------|--|---|-----------------------|---|
| 4. 01/2 1 | * d. 0 01 0 1 | * d. 0 04 0 14 | | s. d. 0 04 0 14 | d. 6音 7 | * d. 0 7 0 7 | *. d. 0 9 0 9} | s. d. 0 94 0 94 | * d. 0 94 0 104 |
| 1 02 02 | 0 0 0 0 0 | 0 9 24 10 0 24 10 0 24 10 10 10 10 10 10 10 10 10 10 10 10 10 | 0 2 4 | 0 24 0 3 0 34 | 74 8 84 | 0 84 10 0 94 0 94 | 0 10 ¹ 0 11 0 11 ¹ | 0 10§ 0 11§ 1 0 | $ \begin{array}{c} 0 & 11 \\ 1 & 0 \\ 1 & 0 \\ 1 & 0 \\ \end{array} $ |
| 8 34 4 | 0 0 0 4 | 0 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 | 0 42 0 5 | 0 45 0 6 | 9 91 10 | $ \begin{array}{c} 0 & 9\frac{3}{6} \\ 0 & 10\frac{1}{2} \\ 0 & 11 \end{array} $ | $ \begin{array}{c} 1 & 0_{4} \\ 1 & 1 \\ 1 & 1_{5} \\ 1 & 1_{5} \end{array} $ | 1 12 | 1 1 1 2 1 3 |
| 45 53 | 0050 | 0 64 0 64 0 75 | $ \begin{array}{cccccccccccccccccccccccccccccccccccc$ | 0 64 0 75 0 84 | 10g 11 11g | $ \begin{array}{c} 0 & 11\frac{1}{5} \\ 1 & 0 \\ 1 & 0\frac{1}{5} \end{array} $ | 1 25 | 1 24 | 1 34 |
| 6 | 0 61 | 0 81 | 0 81 | 0 9 | 12 | 1 1 | 1 43 | 1 44 | 1 6 |

TABLE XIV.

Shows the relative weight of the Imperial, Dutch, and Edispurgh, Glasgow, and Ayrshike Trone founds, from 1 to 24 pounds Imperial.

| Imps. | Dutch | Edin. | Glasgow | Ayr. | Impl. | Datch | Edin. | Glaszow | Ayr. |
|---|--|---|--|--|--|--|--|--|---|
| Lbs. | Lbs. | Tr. Lbs. | Tr. Lbs. | Tr. Lbs. | Lbs. | Los. | Tr. Lbs. | Tr. Lbs. | Tr. Lbs. |
| 1288- 1288- 1288- 1288- 1288- 1288- 100- 111- 128- 128- 128- 128- 128- 128- 128 | $\begin{array}{c} \text{Lb*. Or.}\\ 0 & 14\frac{5}{4}\\ 1 & 12\frac{5}{4}\\ 2 & 12\\ 1 & 9\frac{5}{4}\\ 4 & 9\frac{1}{4}\\ 5 & 7\frac{5}{6}\\ 7 & 5\\ 8 & 0\\ 8 & 9 & 2\frac{5}{4}\\ 10 & 1\frac{5}{5}\\ 10 & 1\frac{5}{5}\\ 10 & 15\frac{5}{5}\\ \end{array}$ | Lbs. Oz. 0 113 0 113 1 74 2 2 145 3 105 5 5 13 5 5 13 5 5 13 5 5 13 5 5 13 8 114 8 114 | $\begin{array}{c} 10^{-1} \\ 10^{-1} \\ 12^{-1} \\ 22^{-1} \\ 22^{-1} \\ 32^{-1} \\$ | $\begin{array}{c} 105.02.\\ 103.02.\\ 120.03.02.\\ 120.03.03.\\ 120.03.03.\\ 120.03.03.\\ 120.03.03.\\ 120.03.03.\\ 120.0$ | Lts. 13 14 15 16 17 17 17 18 19 20 21 22 23 23 24 | $\begin{array}{c} 118 \\ 118 \\ 118 \\ 128 \\ 128 \\ 138 \\ 114 \\ 148 \\ 168 \\ 168 \\ 168 \\ 188 \\ 188 \\ 198 \\ 201 \\ 198 \\ 201 \\ 198 \\ 201 \\ 201 \\ 15 \\ 201 \\ 15 \\ 158 \\ 1$ | $\begin{array}{c} {\bf L}_{248.} \ {\bf 0}_{7.} \\ 9 \ 7^{\frac{1}{4}} \\ 10 \ 3 \\ 11 \ 10^{\frac{1}{4}} \\ 12 \ 5^{\frac{1}{2}} \\ 12 \ 11^{\frac{1}{4}} \\ 13 \ 14 \ 8^{\frac{1}{2}} \\ 15 \ 4^{\frac{1}{4}} \\ 16 \ 0 \\ 16 \ 5^{\frac{1}{4}} \\ 17 \ 7^{\frac{1}{4}} \end{array}$ | $\begin{array}{c} {\rm Lba.\ Oldsymbol{Omega}}\\ {\rm 9}&4\\ {\rm 9}&15\frac{4}{3}\\ {\rm 10}&10\frac{4}{5}\\ {\rm 12}&1\frac{4}{5}\\ {\rm 12}&7\frac{3}{4}\\ {\rm 12}&7\frac{3}{4}\\ {\rm 12}&8\frac{4}{3}\\ {\rm 14}&8\frac{5}{3}\\ {\rm 14}&15\\ {\rm 16}&0\\ {\rm 16}&5\frac{4}{4}\\ {\rm 17}&1\\ \end{array}$ | $\begin{array}{c} \underline{\mathbf{L}} \underline{\mathbf{h}} \underline{\mathbf{s}}, \mathbf{Oz}, \\ & 8 \ 10^{\frac{3}{2}} \\ & 9 \ \mathbf{sg} \\ 9 \ \mathbf{sg} \\ & 10 \ 10^{\frac{3}{2}} \\ & 11 \ 10^{\frac{3}{2}} \\ & 11 \ 10^{\frac{3}{2}} \\ & 12 \ 10^{\frac{3}{2}} \\ & 12 \ 10^{\frac{3}{2}} \\ & 13 \ 5^{\frac{1}{2}} \\ & 14 \ 0 \\ & 15 \ 0 \\ & 16 \ 6 \\ \end{array}$ |

APPENDIX.

TABLES OF WEIGHTS AND MEASURES.

IMPERIAL TROY WEIGHT.

| .003961 of a cubic inch of water | = | 1 grain. (gr.) |
|----------------------------------|---|-----------------------------|
| 24 grains | - | 1 pennyweight. (dwt.) |
| 20 pennyweights | - | 1 ounce. (oz.) |
| 12 ounces | - | 1 pound (lb.) = 5760 grains |

This weight is used for weighing gold, silver, jewels, &c.; also, for comparing different weights with one another. A silver shilling weighs 3 dwts. 15 3, grs.; a gold sovereign 5 dwts. 3.2745 grs.

IMPERIAL AVOIRDUPOIS WEIGHT.

| | | | | | Tro | y grains | | Cub in. of water. |
|----|-----------|-------|-----|---------------------|-----|----------|---|-------------------|
| 16 | drams | (dr.) | = 1 | ounce | - | 4371 | | 1.7329625 |
| 16 | ounces | (02.) | = 1 | pound | = | 7000 | - | 27.7274 |
| 14 | pounds | (lb,) | = 1 | stone | - | 98000 | | 388,1836 |
| 28 | pounds | (lb.) | = 1 | quarter | | | - | 776.3672 |
| 4 | quarters | (qr.) | ={ | l hundred weight | } | | - | 3105.4688 |
| 20 | hundred) | (ewt) | _ | ton | í | | _ | 62109.376 |

Butcher meat in London is sold by the Smithfield stone of 8 lbs;; but in some counties of England the stone contains 12, in others 14, and in some even 16 lbs. Imperial.

This weight is now used for all articles sold by weight, except the precious metals, &c., which are sold by Trov weight. As there are 5760 grs. in the pound Troy, and 7000 in the pound Avoirdupois, they are to one another in the proportion of 5760 to 7000, or as 144 to 175.

IMPERIAL MEASURES OF CAPACITY.

| | | | | | | cubic inches. | | | | |
|----------|----------|---|---|---------|---|---------------|---|-----|--------|--------|
| 1 | gill | = | | | - | 8.6648125 | | 5 | oz. of | water. |
| 4 | gills | _ | 1 | pint | _ | 34.65925 | - | 11 | lb. | 22 |
| 2 | pints | - | 1 | quart | = | 69.3185 | - | 21 | lb. | 22 |
| 4 | quarts | - | 1 | gallon | = | 277.274 | - | 10 | 1Ъ. | 12 |
| 2 | gallons | | 1 | peck | _ | 554.548 | - | 20 | lb. | ,, |
| 4 | vecks | - | 1 | bushel | - | 2218.192 | - | 80 | 1b. | 12 |
| 8 | bushels. | - | 1 | quarter | - | 17745 536 | - | 640 | lb. | 17 |

4 quarters make a chaldron, and 10 quarters a last. In London a chaldron of coals is 36 bushels.

This measure is used both f r liquids and dry goods, the measures up to the gallon being used for liquids, and from the peek upwards for dry goods.

TABLES OF WEIGHTS AND MEASURES.

| | cubic in. | I | mp. galls, |
|-----------------------------|------------------|-----------|------------|
| The Winchester bushel measu | red 2150.42, and | contained | 7.75557 |
| The Irish bushel ,, | 2178 | 22 | 7.85504 |
| The Irish gallon for all (| 217.6 | ** | .78473 |
| The Old English Wine ? | 231 | ,, | .83311 |
| The Old English Beer (, | 282 | ** | 1.01705 |
| The Scotch gallon for } , | 833.6272 | ~ " | 3.00651 |

IMPERIAL LONG, OR LINEAL MEASURE.

| 12 | lines | _ | 1 | inch. | | |
|------------|----------|---|---|---------------------|------|------------|
| 12 | inches | - | 1 | foot. | | |
| 3 | feet | = | 1 | yard. | | |
| 53 | yards | | 1 | pole, perch. or rod | 1000 | 161 feet. |
| $4\bar{0}$ | poles | - | 1 | furlong | | 220 yards, |
| 8 | furlongs | - | 1 | mile | | 1760 |

A Scotch mile is 1976¹/₂ yards, an Irish mile is 2240 yards, a palm is 3 inches, a hand is 4 inches, a span is 9 inches, a cubit is 18 inches, a fathom is 6 fect, an ell English is 45 inches; the length of a pendulum vibrating seconds at London 39,1393 inches.

IMPERIAL SQUARE, OR SUPERFICIAL MEASURE,

| 144 | square | inches | - | 1 | square | foot. | | | | |
|-----|--------|--------|---|---|--------|-------|---|------------------|--------|-------|
| 9 | square | feet | | 1 | square | yard | | | | |
| 301 | square | yards | = | 1 | square | pole | - | $272\frac{1}{2}$ | square | feet. |
| 40 | square | poles | | 1 | rood | | _ | 1210 | square | yards |
| 4 | roods | | = | 1 | acre | | - | 4840 | - 11 | |
| 648 | acres | | | 1 | square | mile | | | | |

The Irish lineal pole or perch is 7 yards, and the square perch 0° quare yards; the Imperial square pole being 30 square yards, the acre is to the Irish as 30½ to 40, or as 121 to 106. 100 square feet = a square of flooring; 38 square yards = a rood of building; 272 square feet are sometimes reckoned a rood of brief work.

The chain u-ed for measuring land is 4 poles or 22 yards long, and consists of 100 links, each link being $\frac{1}{150}$ of a yard, or 7.29 inches long: 10,000 square links make a square chain; 25,000 square links = a square rood; 100,000 square links = a square arc.

CUBIC, OR SOLID MEASURE.

1728 cubic inches = 1 cubic foot.

27 cubic feet = 1 cubic yard = 46656 cubic inches.

A cubic inch of water weighs 252.458 grains, or .0360654 pound Imperial, and a cubic foot 62.321 pounds; a barrel bulk is

TABLES OF WEIGHTS AND MEASURES

5 cubic feet; a ton of shipping is 42 cubic feet; a load of unhewed timber is 40 cubic feet; a load of squared timber is 50 cubic feet.

SCOTCH LINEAL MEASURE.

| | | | | | | ells, | Ŀ | mp, in | iches. | | | |
|----|---------|------|---|--------|-------|-------|----|--------|--------|---------|-----------|--------|
| 1 | ell | | | | | | | 37. | 0598 | | 3.08831 | 6. ft. |
| 6 | ells | - | 1 | fall | | = | = | 222 | 3588 | - | 18.5299 | |
| 4 | falls | 1000 | ł | chain | | 24= | - | 889. | 4352 | Anger . | 74.1196 | |
| 10 | chains | - | 1 | furlon | grana | 240= | - | 8894. | 352 | 2010 | 247.0653. | vds. |
| 8 | furiong | = | 1 | mile | - | 1920= | =7 | 1154. | 816 | ==1 | 976.5226. | ,, |

There having been some uncertainty regarding the length of the Scotch elf, a jury was appointed by the Sheriff Depute of the County of Edinburgh, which met 4th February, 18:26, and determined, in conformity to a report by competent persons, that the standard elf-bed, in the custody of the elfy of Edinburgh, measured 37,0595 Inp. inches, and the Scotch chain of 24 ells 74,1109 Inm. Ecu, divided into 100 links, each 8,89452 inches.

Some land measurers, reckoning the Scotch eli at 37 inches, used a chain of 74 lmp. feet, divided into 100 links, each 8.83 inches; others, reckoning the Scotch ell at 37_{10}^{+0} , used a chain of 74_{10}^{+1} feet, divided into 100 links, each 8.928 inches,

SCOTCH LAND MEASURE.

| 1 square ell | == | 9.5377 Imp.sq.ft | . = | 1.059744425956 |
|--------------------------------------|----|--------------------|-----|----------------|
| 36 square ells | - | 1 square fall | - | 38.150799334 |
| 16 square falls | = | 1 square chain | - | 610.412789351 |
| 40 square falls,) or 21 chains } | - | 1 square r. od | | 1526.03197337 |
| 4 square roods,) | - | 1 novo - 5760 olle | | 6104 19780251 |

or 10 chains = 1 acre = 5760 ells = 6104.12789351.

The Seatch acre is to the Imperial as 1.201183440 is to 1, or as 1 to .72920606, or very nearly as 874 to 603. When the chain is reckoned to be 74 feet, the acre will contain 60844 yards, and is to the Imperial acre as 1.25711662 is to 1; when it is reckoned to be 74 $\frac{4}{3}$, feet, the acre will contain 0150 $\frac{4}{3}$ yards, and is to the Imp, acre as 1.2707138 is to 1.

SCOTCH DRY MEASURE.

| | | | | | | | | | | | | | For | |
|----|---------|----|---------|------|---|---------|------|-----|-----|-------|----|----|----------------|--|
| | | | | | | | | For | r W | heat. | | E | Barley & Oats. | |
| | | | | | | | | C | ub. | in. | | | cub. in. | |
| 4 | lippies | or | forpats | _ | 1 | peck | 1000 | | 55 | 3.58 | ŀ. | •• | 807.576 | |
| 4 | pecks | - | | - | 1 | firlot | - | | 221 | 4.32 | 2. | | 3230,305 | |
| 4 | firlots | | | | 1 | boll | == | 8 | 385 | 7.28 | 9. | | 12921,222 | |
| 16 | bolls | | | 2012 | 1 | chalder | - | 141 | 171 | 6.62 | £. | •• | 206739.546 | |
| | | | | | | | | | | | | | X | |

The Scotch pint jug was found to contain 26306.932 Imp. Troy grains, or 3.7581 pounds of water, and measured 104.2034 cubic inches. The wheat firld is nearly equal to the Imp. bashel, and contained 214 Scotch pints = 7.98605 Imp. gallons;

and is to the Imp. bushel as .998256 to 1. The barley firlot contained 31 Scotch pints = 11.65024 Imp. gallons, and is to the Imp. bushel as 1.4562794 to 1.

SCOTCH TROTES, OR DUTCH WEIGHT.

16 drops = 1 ounce = 1.09375 ounce Imp.

16 ounces = 1 pound = $17\frac{1}{2}$ ounces Imp. = 7656.25 Imp. grains. 16 pounds = 1 stone = $17\frac{1}{2}$ pounds Imp.

4 lippies, or 1 stone of meal = 1 peck = 83 lbs. Imp.

16 pecks = 1 boll = 140 lbs. Imp.; 2 bolls = 1 sack or 16ad = 280 los. Imp.; and 16 bolls = 1 chalder.

The Societh Troyes, or Dutch pound, being the 16th part of the Lanark tone, was found, by an Edinburgh jury, to weigh 7005.4969575 Imp. grains, or 17.302 Imp. concess, in place of 175, as was usually estimated. But since the verifice hear enferred to was passed, the Lanark stone has been suspected by the reporters, whose authority the verific resks, to be hardly unitrs, and that for every pract cal perpose it may be estimated. The pound is then in propertient to the Imp. as 174 to 16, or 35 to 23; and the stone is to the Imp. stone as 17 \pm to 14, or 35 to 28.

This weight was used for weighing meal, iron, unwrought pewter and lead, hemp, flax, most Dutch and Baltic goods, and other articles.

> Scotch TRONE WEIGHT. 16 drops = 1 ounce. 16 ounces = 1 pound. 16 pounds = 1 stone.

This weight was used for weighing butter, cheese, butcher meat, hay, and other home productions, and varied in different counties in Scotland, from 20 to 28 Imp, ounces to the nound. By an Edinburgh jury, in 1826, the Trone pound was found to weigh 9622.67 Imp, grains, or as 1.374667 to 1 pound Imp.: or very nearly 22 Imp, ounces. In Glasgow, and the Lower Ward of Lanarkshire, the pound in general use contained 221 Imp. ounces; in Berwickshire and Dumbartonshire, 23 ounces; Selkirkshire, 231 ounces; Avr-hire, Montrose, Brechin, Arbroath, &c., 24 ounces; part of Kirkcudbrightshire, 26 ounces; Kirriemuir, 27 ounces; and Aberdeen, 28 ounces. The pound of these weights are in proportion to the Imp, pound as the number of the Imp. ounces in their pound is to 16; and their stone contains the same number of Imp, pounds as their pounds contain of Imp. ounces. But as there are 16 pounds to the Trone stone, and only 14 pounds to the Imp. stone, the Trone stone is to the Imp. stone in the proportion of the number of Imp. pounds in their stone to 14, the number of pounds in the Imp. stone. As the Dutch and Trone weights are similarly

TABLES OF WEIGHTS AND MEASURES.

divided, they are to one another in the proportion of the number of Imp. ounces in their pounds, or Imp. pounds in their stone.

BREAD AND FLOUR WEIGHT.

4 lbs, $5\frac{1}{2}$ oz. Imp. = 1 quarter loaf. 8 lbs, 11 oz. " = 1 halt peck do.

17 lbs. 6 oz. " = 1 peck do.

A peck or stone of flour is 14 lbs., a bushel of flour is 56 lbs., a boll is 140 lbs., a sack or 5 bushels is 280 lbs., or 2½ cwt.

OLD ENGLISH DRY MEASURE.

| | | | | | Cub. in. | | Imp. gal. |
|------------|------|---|-------------|---|-----------|---|-----------|
| 2 pints | = | 1 | quart | = | 67.2 | - | 0.24236 |
| 4 quarts | - | 1 | gallon | - | 268.8 | | 0.96944 |
| 2 gallons | - | 1 | peck | - | 537.6 | - | 1.93889 |
| 4 pecks | - | 1 | bushel | | 2150.42 | - | 7.75558 |
| 4 bushels | = | 1 | coom | - | 8601.68 | | 31.02231 |
| 2 cooms | - | 1 | quarter | | 17203.36 | | 62.04462 |
| 5 quarters | 3 == | 1 | wey or load | - | 86016.80 | = | 310.22310 |
| 2 wevs | - | 1 | ton | - | 172033.60 | - | 620.44620 |

WOOL WEIGHT.

| 7 | lbs. | avoirdupois | | 1 clove |
|------|------|-------------|------|---------|
| 14 | lbs. | or 2 cloves | - | 1 stone |
| 28 | lbs. | or 2 stones | 4000 | 1 tod |
| 182 | lbs. | or 61 tods | | 1 wey |
| 364 | lbs. | or 2 weys | | 1 sack |
| 4368 | lbs. | or 12 sacks | | 1 last. |

20 lbs. = 1 score, and 240 lbs. or 12 scores = 1 pack. Wool is frequently sold in Scotland by a stone of 24 lbs. Imp.

HAY AND STRAW WEIGHT.

| 36 | lbs, Imp. of straw | - | 1 | truss. |
|----|--------------------|---|---|--------|
| 56 | lbs, of old hay | | 1 | do. |
| 60 | lbs. of new hay | - | 1 | do. |
| 36 | trusses | - | 1 | load. |

A load of straw weight 11 ewt, 2 grs, and 8 lbs, a load of ol hay 15 ewt, and a load of new hay 19 evt. and 32 lbs. Each truss of hay sold between 1st June and 31st August, being new hay of that year's growth, must weight 60 lbs, and every truss sold between 31st August and 1st June, in the succeeding year, must weigh 56 lbs.

THE QUARTERLY TERMS.

| In England. |
|-----------------------------|
| Lady-day, 25th March. |
| Midsummer, 24th June. |
| Michaelmas, 29th September. |
| Christmas, 25th December. |

| In Scotland. |
|--------------------------|
| Candlemas, 2d February. |
| Whitsunday, 15th May. |
| Lammas, 1st August. |
| Martinmas, 11th November |

THE END.







