### Rules for Mechanics.

The following convenient rules for Mechanics and others, although not perfect in their fractional parts, are, nevertheless, correct enough for all practical purposes. They were compiled by a writer in one of our exchanges.—*Far. & Mech.*

*To find the area of a Triangle*—Multiply the base by the perpendicular height, and take half the product for the area.

*To find the area of a Circle*—Multiply half the circumference by half the diameter, and the product will be the area.

*To find the circumference of a Circle from the diameter*—Multiply the diameter by 22 and divide by 7—or to be more exact, multiply the the diameter by the shortest; then multiply the products by the decimal 7854.

*To find the contents of a Pyramid or Cone* —Find the area of the base, and multiply that area by the perpendicular height, and take one third of the product for the contents.

*To find solidity of a Sphere or Globe*—Multiply the surface by the diameter, and take one-sixth of the product for the contents.

*To find the weight of Wrought-Iron*—Find the number of cubic inches in the piece, and multiply by 2816, the weight of one cubic inch; the product is the weight in pounds.

*To find the weight of Cast-Iron*—Find as above and multiply by .2607.

*To find the weight of Copper*—Find as above and multiply by 32118; product is weight in pounds.

*To find the weight of Lead*—Find as above and multiply by 51015; product is weight in pounds.

*To find the weight of Brass*—Find the number of cubic inches, multiply by 3112; product is the weight in pounds.

*To find the strength in Ropes*—Multiply the square of the circumference in inches by 200; it will give the weight the rope will bear in pounds.

*To find the strength of Cables*—Multiply the square of the circumference in inches by 120, the product is the weight the cable will bear in pounds.

*To find the strength of a Chain*—As many ⅛ of an inch as the chain is in diameter, take ⅔ of this sum and multiply by the other half; the product is the weight in tons it will bear.

*To find the length of iron to form a Hoop or*

*Band*—Add once the thickness of the iron t diameter of the hoop, and multiply by 22; d by 7 gives the length.

*To find the size of Nuts for Bolts*—Th should be twice the diameter of the bolt in bre and once the diameter in thickness.

*To measure stone for building*—Multipl length by the width, and that by the thic and divide by 24.75, which gives the p in it.

*To measure Stone in a Well*—Measure well in the clear, and add the thickness o wall, then find circumference, which is the l of the wall, and divide by 24.75.

*To measure Grain in a Bin*—Multipl length of the bin by the width, and that b depth; this gives the cubical feet in a bush

*To measure Corn in a Crib.*—Multipl length and breadth of the house together, an by the depth, which will give the cub c f vide the last product by 12 which will g barrels of shelled corn in the crib, 5 bushe barrel.

*To find the cubic feet in a Grindston* the whole diameter add half said diamet multiply by the same half, and this prod the thickness, and divide by 1728, the nu cubic inches in a foot.

*To find the cubic measure of hewn* —Multiply the breadth *in inches*, and that thickness *in inches*, and that by the length *Note.*—Square measure has 144 inches square foot, cubic measure has 1728 inches cubical foot.

*To find the number of gallons in a ci reservoir*—Find the number of cubical fe multiply by 7½ for the gallons.

A cubic foot of water weighs 62-5 lbs. are 230 cubic inches in a gallon of water.

*Morocco Dressing in Brooklyn.*—The says: "There was a time, and that not v past, when French Morocco, so indispen well as becoming for ladies' wear, could had by importation. Now, however,— to native enterprize—if not veritable Morocco, that at least which is dressed same fashion, and with all the beauty an of the best foreign article, is furnished abo at our own door. An establishment of t and the largest in our vicinity, if not in t try, is that of Messrs. Chambers & Ba