Houldsworth is said to have attained a fineness represented by No. 10,000, one pound of which would extend 4,770 miles. This is marvelous.

Yarn is made into hanks on a reel 41 feet in circumference, 80 revolutions of which make a lay of 120 yards, 7 days to a hank of 864 yards.

Previous to the invention of the mule, the limit of fineness ordinarily reached in England was No. 400. The natives of India reached from Nos. 300 to 400. As appears by the above figures, the mule has revolutionised this matter, leaving all mere hand skill far in the rear.

2. Worsted yarn has 560 yards to the skin.
3. Linen yarn has 1,600 yards to the skin or run.

The reels differ in size, being respectively 2½ and 1½ yards round.

120 threads of 2½ yards = 300 yards = 1 lea.
10 leas = 3,000 yards = 1 hank.
20 hanks = 60,000 yards = 1 bundle.
3 bundles = 180,000 yards = 1 hank.

Of the smaller reel:

100 threads of 1½ yards = 150 yards = 1 lea.
15 leas = 1,500 yards = 1 hank.
60 hanks = 60,000 yards = 1 bundle.

The fineness of linen yarn is reckoned by the number of leas, of 300 yards to the pound (cotton, it will be recollected, is reckoned by the number of hanks, of 864 yards to the pound), so that 25 or 400 leas represent those rather extreme numbers here that number of leas in the pound weight; 7,250 yards and 120,000 yards, respectively, in length of thread.

Another mode of reckoning the grade of a linen yarn is by the weight of the bundle of 60,000 yards. Thus, a bundle of 25 leas to the pound weighs 8 pounds; a bundle of 100 leas to the pound weighs 2 pounds; etc.

Yarn. Thread prepared for weaving.

1. Cotton yarn is numbered according to the number of hanks contained in a pound of 7,000 grains.
2. Each hank or skein measures 630 yards.
3. At the great exhibitions of industry, London, 1868, Mr. Houldsworth of Manchester exhibited cotton yarn Nos. 100 to 2,100.
4. No. 100 single cotton yarn weighs 70 grains.
5. No. 200 single cotton yarn weighs 14 grains.
6. No. 300 single cotton yarn weighs 10 grains.
7. No. 400 single cotton yarn weighs 5 grains.
8. No. 500 single cotton yarn weighs 3 grains.
9. No. 600 single cotton yarn weighs 2 grains.
10. One pound weight of No. 2,100 extends upwards of 1,000 miles in length.