

Now, if we look at the four ears of wheat in eng. No. 3, we shall see that a considerable difference exists between them: *a* is a close or compact eared wheat, the spikelets being set near each other on the stem (*rachis*). The second class of ear is seen at *b*, the spikelets being of medium length and breadth. The ear is not so broad, but longer than *a*. This, *b*, is the well-known Scotch wheat, Hunter's white. The third class, *c*, is the Talavera wheat, brought from a town of that name in Spain, after the Peninsular war. A loose-looking



Fig. 3.

ear it is, the spikelets set so far apart that the stem is plainly visible between them; the ear is long but narrow; and the chaff adheres very loosely to the grain, making it very easy to thresh. At *d*, we have the bearded wheat, such as is generally sown in this province. These bearded wheats are generally distinguished by the long shape of the chaff and the open position of the spikelets, and, consequently, fall under the third class. I have seldom seen so fine a ear of this kind of wheat in Canada as the one figured in the engraving. Here, the boards are usually longer, and the spikelets still more loosely placed on the stem.



Fig. 4.



Fig. 5.



Fig. 6.

The grain of wheat may, as well as the ears, be classed under three heads: the short and plump, the medium-sized, and the large and long form. The first, or short and plump form, is shown in No. 4, where the bosom is distinctly marked, and well filled up. All fine *white* wheat (Talavera may be called *yellow*) belongs to this class.

The second class is represented by fig. 5, where the grains

are long and of medium size. Almost all the red wheats are of this type, such as the Kessingland, red Lammas, Yorkshire creep, &c.

Fig. 6 represents the third form of grain, which is large and long to a greater degree than the last class. The Talavera wheat belongs to this class, and, when once seen, can hardly be mistaken for any other. It has a very valuable propensity, that of early ripening, fields of it in the home-counties of England being often to be seen in stack before any other wheat is fit to cut. Biscuit-bakers value it highly, though it is too valuable to be used for bread: it usually fetches one shilling a bushel more than the best samples of red wheat, and may, as I observed before, be sown in spring or in autumn. Many a poor farmer is indebted to this wheat for the means of getting his harvest in: the steam-engine is set in the field, the shocks carted to the machine, the crop is threshed then and there, and sold on the earliest market-day. In the year 1853, I left home for the Mark Lane market by the 7 a. m. train with a sample in my bag that had been threshed that morning—no dew fortunately—and at 11.30 a. m. I had sold it, winning thereby a bet of £10 that I could sell the earliest lot of wheat in England. Talavera wheat is quite opaque, dull-looking, and indicates not the slightest sign of translucency. Such wheat yields the true pastry-flour; while the Chidham, a white, partially translucent wheat, is the best suited to the baker's use.

A fair average weight for wheat is 63 lbs. per imperial bushel. I have seen a lot weighing 66 lbs.—after ordinary careful dressing—and at the Great Exhibition of 1851, there was a sack shown, which weighed 68 lbs., and won the first prize; but it was hand-picked, and so not a fair sample. In some wet seasons, in England, I have found it necessary to kiln-dry wheat. In doing this, great care should be taken, as the slightest smell of smoke would render the wheat unsaleable. No fuel should be used except pure anthracite coal, and if the fire has to be lighted expressly for the wheat, the wood used to start the fire should be thoroughly burnt out before the kiln is loaded. The grain should be at least nine inches deep on the wire or plates, and should not be turned until nearly finished, when two or three quick succeeding turns will complete the job. In the wet harvest of 1852, I dried about 2000 bushels of wheat in this way most successfully, and the miller to whom I sold it was perfectly satisfied with his purchase—a rare occurrence, I can assure you.

The London millers used to make seven distinct sorts from a grinding or grist of wheat; as, from a quarter—eight imperial bushels—are derived:

	Bushels.	Pecks.
Fine flour	5	3
Seconds.....	0	2
Fine middlings.....	0	1
Coarse do	0	0½
Bran	3	0
Twenty-penny	3	0
Pollard	2	0
Total.....	14	2½

So that grinding increases the bulk of flour and bran in the proportion of 14½ to 8 of the bulk of wheat. What the new system of rolling or crushing wheat does I know not, as I have never had an opportunity of studying the process; but I do know that I am using *patent* flour at present which makes most excellent as well as most profitable bread. The yeast is prepared at home, and the whole business goes on as regularly as clockwork: the yeast is set at 10.30 p. m., and