An average head of wheat is about three and a half inches in length. It is made up of a large number of spikelets which are arranged alternately along the stalk. Each spikelet usually contains three flowers. The flower is small and is enclosed by two glumes, which afterwards form the chaff. These glumes are sometimes blunt and sometimes elongated into awns or beards. The very interesting little flower, therefore, cannot be seen except by opening up the glumes, which

Front View. Side View.

Fig. 21. Head of wheat, natural size.

Fig. 22. Spikelet of wheat. Wheat flower.

can be readily done by means of a sharp knife or a pin. A small magnifying glass will greatly help in examining the various parts of the flower. The flower produces the seed which at first is very small, but which grows rapidly and ripens in three or four weeks after the formation of the flower.

As the grain ripens, the leaves turn brown and wither, the stems or straws change to a green or lightish yellow color, and the glumes become dry and harsh. From the one seed which was planted, we have obtained a well ripened plant, which is ready to be cut, harvested, and threshed, and will furnish us with straw, chaff, and grain, all of which are useful.

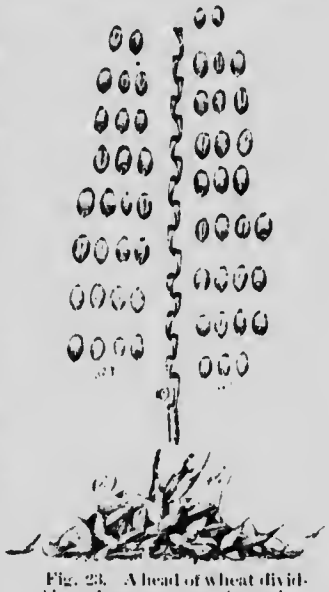

Fig. 23. A head of wheat divided into three parts: (a) the grains; (b) the chaff, and (c) the centre stem.

I have touched on only a few of the points in connection with the life history of the wheat. The germination of the seed; the feeding of the plant; the growth of the leaf, the stem, and the head; the arrangement of the flower; the production of the grain, —are all subjects which are very interesting and worthy of a person's close attention and careful study.

In view of the importance of the wheat crop, a large amount of experimental work has been done at the Ontario Agricultural College in order to glean information which may be of value in increasing both the yield and the quality of the wheat of Ontario. The results of these experiments have been published in bulletins which have been