Wheats are classified according to Hackel as follows:

- *Triticum monococcum*—Einkorn or one-kerneled wheat.
- *Triticum sativum dicoccum*—Emmer.
- *Triticum sativum spelta*—Spelt.
- *Triticum sativum tenax vulgare*—Common wheat.
- *Triticum sativum tenax durum*—Durum wheat.
- *Triticum polonicum*—Polish wheat.

The einkorn used in our investigations (C. I. No. 2433) was a small grain irregular in size which did not separate readily from the chaff. It seemed much like an immature and shriveled sample of ordinary wheat. Some of the grains were so small that they contained very little endosperm.

The kernels of the emmer (Black Winter, C. I. No. 2337) which was used in this experiment were larger than ordinary wheat and in shape resembled somewhat the rye grain. It was also difficult to remove the chaff from the grain.

The sample of spelt2 (Alstroum, C. I. No. 3264) resembled emmer quite closely in appearance of the grain; in fact, the names are sometimes confused in this country. Spelt and emmer are both used mostly as stock feed and very little for human food.

The sample of Polish wheat used was obtained from C. B. West, Sheridan, Wyo. The kernels of this sample were even larger than those of durum wheat and about twice as long as those of ordinary wheat. In appearance the kernels were flinty and of an amber color, thus resembling durum wheat. Polish wheat differs from the einkorn and spelt in that it is readily separated from the chaff, so that ordinary thrashing is all that is required to prepare the grain for the miller.

1 Contribution from the Laboratory of Plant Chemistry of the Bureau of Chemistry, U. S. Department of Agriculture, Washington, D. C. Received for publication April 3, 1918.

2 The three wheats (einkorn, emmer, and spelt) were obtained for us through the courtesy of the Office of Cereal Investigations, Bureau of Plant Industry. The emmer and spelt were supplied hull free. The sample of einkorn was hulled in the laboratory before milling.