Besides, seed of high moisture content, if stored with exclusion of air, will putrefy and become quite valueless. The amount of heat evolved depends on the temperature and is small at a low temperature; but if sufficient to raise the temperature of the pile, the generation of heat will increase also, with the result that the temperature will rise faster and faster. If the seed house and the seed were kept at 60 to 70 degrees very little heat would be generated by the seed and very little cooling would be required to keep the seed at that temperature.

Heating of seed is caused by enzymes which require moisture to become active. It is not caused by bacteria. Seed that have been disinfected will heat as easily as seed that have not. Heating is not the natural living process of the living seed, because heated seed will have lost to a great extent or completely their power of germination. Oxidation is the most important chemical process taking place; the sugars are used up first, then the pentosans are attacked and oxidized to carbondioxide. The oils and proteins are not destroyed, but the chemical and physical characters will change. The glyzerides of the oils become hydrolized and the acidity of the oil will increase. The proteins become coagulated and insoluble in a solution of sodium chloride. The cell walls become soft and the kernel dark on account of the coloring matter which becomes oxidized and spreads through the whole kernel. The refining loss of the loss will increase not only on account of the increase in free fatty acid, but because other substances will become dissolved or suspended in the oil. The press cake will have a dark color and an off odor. A cake slightly off can be sold as stock food; but if the seed be badly damaged the cake can be sold for fertilizer only. The oil content of an off cake is higher than of prime cake because it seems that on account of the softness of the seed the oil is not so readily expelled. The time of cooking the meats has to be extended or the steam pressure raised to expel the excessive moisture.

Although great losses are sustained by the oil mills and farmers whenever there is unfavorable weather at cotton picking time very little progress has been made in reducing those losses. The person who discovers a process which will prevent the seed from heating (which process must be applied at the gins to be of great benefit) will become a great benefactor of the cotton oil industry directly and the lard compound, the oleomargarine, and the stock food industry indirectly. A quick and simple method of determining the value of cottonseed when bought would undoubtedly take much of the gamble out of the cotton oil industry that now is prevalent.

A Correction

An advertisement appeared in OIL & FAT INDUSTRIES for April, featuring Dr. Edson's book "The Chemistry & Examination of Edible Oils & Fats. Their Substitutes and Adulterants." The price of this book was announced as being $20.00. The correct price should be $12.50. The publishers of the Journal put it highly important to correct this error, lest the price formerly announced deter anyone from ordering as valuable a book as this.