

ground with perfect safety; and thus cellars might be rendered available for granaries, economizing space of comparatively little value. The grain would be easily poured in from the surface; and to discharge it an Archimedean screw should be used. The size of the reservoir should be proportioned to the locality, and it should hold a specified number of quarters, so as to serve as a measure of quantity, and prevent the expense of meterage. * * * If constructed above the ground, a stair or ladder must communicate with the upper part, and the lower part must be formed like a hopper, for the purpose of discharge. For many farm localities this arrangement might be best, and wheat might be thrashed into grain direct from the field and stored. * * * Granaries of this description would occupy less than one-third the cubic space of those of the ordinary description, and their cost would be less than one-fifth. * * * With this security for storing safely, a farmer would have less hesitation in sowing great breadths of land. He would not be driven to market under an average value, and might choose his own time for selling. The fear of loss being dispelled, people would buy with less hesitation, and the great food stores of the community would, by wholesome competition, insure the great mass of the community against a short supply. But as long as uncertainty shall prevail in the storage of grain, so long will it be a perilous trade to those engaged in it, and so long will the food of the community be subject to a very irregular fluctuation of prices. There is nothing difficult in this proposition. It is merely applying existing arrangements to unusual cases. There needs but the practical example to be set by influential people, and the great mass will travel in the same track. To the wealthy agriculturist it will be but the amplification of the principle of the tin-lined corn-bin that keeps out the rat from the oats of the stable. * * * Were this mode of preserving grain to become general, the facility of ascertaining stock and crops after reaping would be very great. The granaries being measures of quantity, no hand-measuring would be needed, and the effects of wet harvest weather might be obviated."

GUANO.

At a meeting of the Society of Arts, some interesting statistics relative to guano were presented by Mr. Horace Green.

Guano is generally understood to have been brought to the notice of Europeans by Humboldt in 1804. It was first brought to England as merchandise in 1830. It had, however, been used in Peru for 600 years. Of this excrementitious matter voided by sea-birds, a very large proportion was decomposed before the guano of commerce was extracted from its beds, and more still before its arrival in port. Proof of the rapid depreciation of guano in keeping might be found in the analyses of the dung of birds by Sir Humphrey Davy and M. Coindet. Coindet found in recent excrement 8.61 of pure ammonia, and of ammonia in the form of its equivalent of uric acid 35.20, making a total of 43.81 per cent. Davy found that the soluble matter of the dung of pigeons decreased from 23 per cent. in the recent excrement to 16 per cent. in that of six months old, and to eight per cent. after fermentation. It appeared that in five years (1845-50) nearly 650,000 tons of guano had been brought almost round the world for the stimulation of the soils of this country, but it was generally believed that the zenith of supply from Peru was