

their property, from the superior knowledge of others, since losses as great may ensue from deficiency of knowledge, as from deficiency of strength, to resist imposition.

Every care is taken by the State to protect our citizens from injury of any kind from the latter cause, but whilst the duty to guard them against injury from the former is acknowledged, the means used are, in many instances, inadequate to the attainment of the end.

The State, to protect its citizens from loss, by the superior knowledge of others, has provided inspectors of various things in common use—men especially chosen, from their superior fitness, to discharge the duties assigned them; these duties being to determine the quality of different things inspected, and to affix to them some mark or brand, by which their value may be known by all. In this way it interposes its superior knowledge, with the same justice that it interposes its superior force, merely to save its citizens from imposition and loss. The duty is as strong in the one case as in the other, and equal necessity exists for its performance.

An inspection that does not show the true value of the article inspected, is worse for obvious reasons, than no inspection at all, and in inspections of things made up of different substances, the quantity of those which *give the article its value*, should be shown. I wish the above plain truths to be applied to the inspection of two articles of great cost to the Agricultural interest, which it is my duty to benefit by all the means in my power.

These two substances are guano and gypsum, (plaister of paris,) the cost of which, to the farmers of this State, is but little short of eight hundred thousand dollars. Too much care cannot be taken to determine their value, and I cannot urge upon your honorable body, too strongly, the necessity of having them subject to a form of inspection, which shall make known for, show to, the buyer the true value of the article which he purchases, and indicate to him the per centage of its valuable constituents.

I shall first speak of guano: Notwithstanding the many various compounds which enter its composition, yet its value almost entirely depends on two of them. On the ammonia already present in it as a salt, with that which is capable of being formed by the decomposition of its azotised matter, and on its phosphoric acid or phosphates, which are combinations of this acid with some base. The small quantity of the other substances in it possess no particular value, as they can, if needed, be supplied much cheaper from other sources.

Does the value of guano depend on its ammonia which it already may have, or which may be formed in it, and its phosphoric acid or phosphates? We have in support of this, a unity of sentiment among the ablest chemists. Liebig, Ure, Johnston, and indeed nearly all who have written on the subject, agree in the opinion, that guano owes its value to its ammonia and phosphates. These two substances *must* give guano its value, or nothing else