

three fourths of the entire area is under strict entail and settlement, the evil was felt to be so serious that an Act of Parliament, entitled "The Montgomery Act," was many years ago obtained, enabling life owners of estates to lay out money in permanent improvements, and make it a mortgage charge upon the inheritance. It is to this Act that Scotland mainly owes the high agricultural position she has attained; and it is not a little strange that, seeing the benefits tangibly exemplified, England should have been content to remain so long under the disabilities, without an effort to obtain the same facilities; for it was not till the Session of 1812, that Mr. Pusey's first Act for the Drainage of entailed and settled estates, in England, was passed.

What high prices failed to promote, in any prominent or effective degree, lower rates have as invariably necessitated: for to the great body of "judges consumere nati" it matters little what the prevailing influence be, so the essential object, of food at reasonable prices, be obtained. Now the use of bones as a fertilizer, is one of those practices, the introduction of which is a landmark in the history of English Agriculture, and is singularly concurrent with improved culture, based, as its adoption was, on sound chemical deductions. And not only so, but, curiously enough, by comparing the declared value of bones imported into the United Kingdom, with the average price of wheat in the respective years, it will be seen that their increased use was during, or immediately following, the successive periods of depression in the value of produce:—

In 1821 the value of bones was	£15,893
1821 it increased to.....	45,914
1827 it was.....	77,956
1830 it declined to.....	53,223
1833 it advanced to.....	97,900
1834 it again advanced to.....	127,131
1836 it was.....	171,806
and in 1837 it had reached.....	251,600

Thus the use of this manure commenced with the low prices of 1821, '22 and '23; it decreased considerably under the higher averages of 1825, '29 and '30; and again pressed into the field, by the low rates of 1834, '36 and '36. Its importation became a settled and greatly extended traffic, which has gone on increasing ever since.—Guano was introduced at a later period, and will alike justify the same conclusions. It also forms a prominent datum of Agricultural progression.

It may be readily inferred that the extension of mechanical appliances, to the various operations of the farm, was, in a great measure influenced by the same causes which tended to the use of artificial tillages; and that their more general application and usefulness were secured by slow and gradual steps, as examples of their efficiency and economy, were from time to time afforded by those whose energy and intelligence led them to incur the risk of trial. These examples produced their fruit, and in due time Thrashing Machines, fixed and portable; Seed Drills; Straw Cutters; Cultivators; Horse Hoes; Improved Ploughs; and finally fixed and portable Steam Engines; Drain Tile and Pipe Machines, &c., &c., made their appearance, and are realising all the advantages that were anticipated.—

The Royal Agricultural Society of England was established in 1838, and held its first Annual Exhibition of Implements, Cattle, &c., at Oxford, the following year: and since there is, perhaps, no more certain indicator of the progress of Agricultural Mechanics, than the Meetings of this Society afford, we will give the number of implements entered and exhibited at each successive show:—

Entries of Implements and Machines:

In 1839 at Oxford, there were	23 entries.
1840 at Cambridge.....	56 do
1841 at Liverpool.....	312 do
1842 at Bristol.....	455 do
1843 at Derby.....	608 do
1844 at Southampton.....	918 do
1845 at Shrewsbury.....	912 do
1846 at Newcastle.....	735 do
1 47 at Northampton.....	1321 do
1849 at York.....	1509 do
1849 at Norwich.....	1976 do
1850 at Exeter.....	1202 do
61 merged in the Great Exhibition.	

As showing, at the same time, the increasing anxiety of the landowners to commence *their* part of the great work, in a primary improvement of the strong and wet lands of the country, it may be noticed that no machine for Drainage purposes, or the manufacture of the materials for drainage, was exhibited till 1843, when two were shown, from which time they gradually augmented to 17, as the largest number. By these machines the cost of Drainage work has not only been reduced one half, but its extension has been rendered effective and durable; and when we assert that no single machine was ever introduced into Agricultural operations, which has produced the same extent of beneficial results in so short a time, we do not exceed the truth, or do more than common justice to the patriotic intelligence of those who have appreciated and applied them. Speaking of Drainage in his deservedly popular article, "*On the progress of Agricultural knowledge during the last eight years*," Mr. Pusey remarks, "Drainage, at whatever depth, for some years known to be profitable, is now indispensable, being only checked by want of means; and it is well that the cost of materials is so greatly reduced by Tile-machines, which can deliver their goods like the new printing-press of the *Times*, at a score in a minute—that instead of paying, as I have done, 90s. per 1,000 feet, we now get pipes at 15s.—one-sixth of the former rate."

With the single exception, perhaps, of Railways, there is no operation which has received a greater share of public attention, or been more thoroughly and ably handled, than that of Drainage. It is now about ten years since its great practical advocate, the late lamented Mr. Smith, of Deanston, infused new life and impetus into the subject, by recording his own experiments, and giving directions for the better performance of the work. He was soon afterwards induced to co-operate with the writer, and others interested in the subject, in an endeavor to establish a Public Company, with fitting legislative provisions, for the Drainage of lands; and it was from