(11) In 1854 Mr. Fowler exhibited at the ...al Society's meeting held at Lincoln his ...m draining plough and apparatus.

"In the report of this meeting, published in ... *Journal*, a diagram is given of this machine. ... judges, in speaking of its wonderful per...ances, wind up with these remarks:— ...rely this power can be applied to more ...ral purposes; we earnestly commend the ... to our engineers and mechanists.'"

(12) Whether those to whom the idea was ...mended took much notice of it or not we do ... know, but we do know that the idea com...ded itself to a farmer, in the person of Mr. ...ith, of Woolston, who in a published letter ...rmed the public that he commenced his ...riments after reading this report.

"Mr. Smith subsequently ordered an appa... of Mr. Fowler, with which he proposed to ..., and subsequently did work his cultivator. ... opinion has been prevalent that Mr. Smith ... a claim to the invention of the whole appa...s; but in 1856, at a meeting of the Society ... Arts, Mr. Smith admitted 'that his first ...lass was constructed by Messrs. Ransomes, ...r the direction of Mr. Fowler.' I do not ...tion this to detract from the great merit due ...r. Smith as a pioneer in steam cultivation, ... simply that the merit should be properly ...ded or given to the right party; and I will ...ark, in passing, that I believe Mr. Smith has ... as much or more than any other man in ...ing the country to the importance of steam ...re, and to the fact that land can be ...omically worked by steam power; he has ... proved that land can be successfully and ...luously farmed by simply 'smashing' or ...ing, and that inversion of the soil is not so ...lutely necessary to successful cultivation as ... generally believed to be."

...uses of delayed Success.—Political econo... tell us that the "machinery of a country ... naturally correspond with its wants, and ... the history and state of its people." This ... doubtedly true; the schemes we have ...ibed having been invented before they were ... wanted or before their need was felt. ...There can be no doubt that a redundant ...lation and the paralysing effect of the old ...law had considerable influence in retarding ...e of machinery in farming; also the wide ... and deeply seated conviction that the ...oyment of mechanical power diminished the ...d for hand labour; and this conviction, ... was shared by all classes, led people to ...very little interest in labour-saving inven...

...gain for want of railways, coal was at ... a price, and so distant from the farm, that ...ost districts half the horse power that ... have been saved by the introduction of ... power would have been employed in haul...g for the use of the engine. ...he revolution which has taken place in farm practice by the substitution of the steam thrashing machine for the flail and the horse gear has, doubtless, been brought about very much through the intersection of the country by railways.

"This again has led the farmer to appreciate the value of and imbibe a taste for steam-driven machinery; it has, moreover, accustomed him to expend comparatively large sums of money in the purchase of machinery. We are creatures of habit, and 'tis astonishing, when we begin to spend money on machinery or anything else, how easy it is to jump from £300 to £500, and from £500 to £800.

Classification of Inventions.—I divide the inventions, which since 1855 have been brought before the public, into the following classes:— 1. Engines to travel over the surface, drawing their implements with them. 2. Locomotive engines working on railways and drawing implements after them. 3. Engines moving along the headlands and working implements by means of wire ropes. 4. Engines stationary whilst at work, and working implements by means of wire ropes. A number of schemes under each head have been either brought before the public or patented; and without using names more than absolutely necessary, I will simply allude to the alleged advantages and disadvantates of each system.

"I would here take the opportunity of stating that in endeavouring to bring steam cultivation into practice, I believe no one has worked harder or spent his money more freely than Mr. John Fowler, and so far as I am concerned I hope he may be amply repaid for his great efforts.

"(1) Engines which move over the land. Under these disadvantages, their weight is immense, and they have to propel themselves over surfaces more or less uneven or more or less yielding; the consumption of fuel and water is at least fourfold that of a stationary engine, and the repairs, owing to the irregularities of the surface of the land and greater friction, would probably be tenfold. The weight of such a machine, passing over the land, is also most objectionable. Mr. Romaine, to whom much praise is due, has worked hard to carry out the principle of a rotary cultivator moving over the surface—a scheme so ably advocated by Mr. Wren Hoskyns. I believe, however, Mr. Romaine has abandoned the plan in favour of rope traction, for which he has obtained one or two patents.

"(2) As to the scheme of laying down rails all over a farm and working locomotive engines upon them, whatever may be the economy and despatch of such a system when once carried out, I think it highly improbable, considering the outlay to be £20 to £30 per acre, that it will ever come into use in this country; at all events, not until landlords generally are much richer, and until a disposition to spend their