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The Field.

Steam Cultivation.

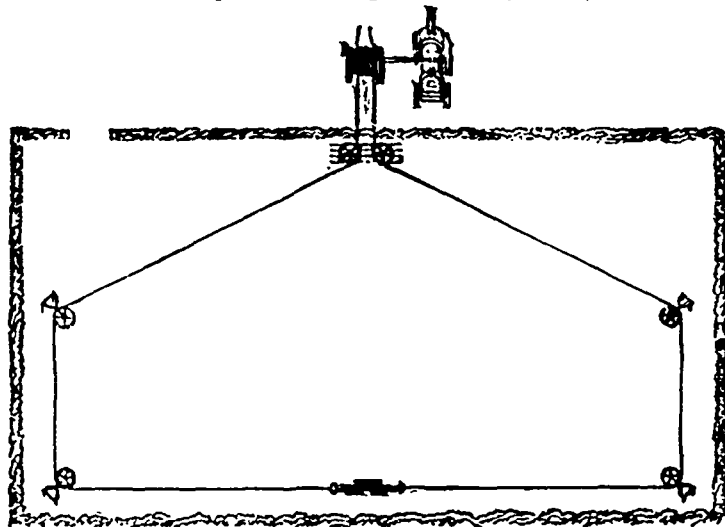
The date at which we have arrived, in thus briefly sketching the history and progress of steam culture in England, is the year 1856. At this point, it may be well to advert shortly to a few of the causes which have prevented some of the prominent schemes we have noticed from being earlier developed, and more universally adopted. To our mind, it appears that the delay is partly attributable to defects in the implements themselves, and partly because steam ploughing apparatus arrived at that stage in its history when it could be successfully used before its need, was felt, or its utility appreciated. In confirmation of the former theory, it is only necessary to advert to the great complication of ropes and engines which characterized the inventions at the period to which we have referred; while the machinery was constructed of materials altogether too weak for the purposes intended, from a mistaken idea that every agricultural implement should be as light as possible. The natural results were that the machines broke

down, and the patience and purses of the farmers were simultaneously exhausted. The rope, too, made of iron wire, at a great expense, usually wore out in ploughing two hundred acres. To this it was found necessary to strengthen it, but the large additional weight, thus imparted to it, absorbed too much of the available power of the engine. At this juncture, if

night." This strange lack of interest is accounted for by a well-informed agricultural authority, as follows: "There can be no doubt that a redundant population and the paralyzing effect of the old poor-law had considerable influence in retarding the use of machinery in farming; also, that a wide-spread and deeply-seated conviction that the employment of mechanical power diminished the demand for hand labor, and this conviction, which was shared in by all classes, led people to take very little interest in labour-saving inventions." However, a better day has dawned. Old-fashioned prejudices and fossilized landmarks have been swept away; and at the present time, upwards of fifteen hundred sets of steam-driven implements, distributed in the British Islands, in India, and in Africa, are unwearingly tearing up and comminuting the soil, and thereby increasing its productiveness.

In resuming our imperfect sketch of the history of steam ploughing up to the present time, we may conveniently divide the inventions which, since 1856, have been brought before the public, into the following classes:—

- 1. Engines which travel over the surface, and drag their implements with them.
- 2. Engines on the locomotive principle, which work on railways, and drag their implements after them.



steel had not fortunately come to the rescue as a light, strong, and highly durable metal for the formation of ropes, the steam plough would in all probability

have been consigned to that bourne from which no defunct invention ever returns. Still another fruitful source of wear and tear of the new steel rope arose from the coiling of this wire on the drums by squeezing it into the V shaped groove. At last the Burton clip-drum was invented, and the rope was firmly but gently clasped, as if by an iron hand, while its shape and texture were preserved. With regard to the other cause—that steam ploughs were invented before their need was felt—we may remark in the words of the political economists, that "the machinery of a country will naturally correspond with its wants, and with the history and state of its people." As an illustration of this principle, take the following reliable fact:—"Not longer ago than the Shrewsbury meeting of the Royal Agricultural Society of England, in 1845, a model of Atzlar's American Steam Plough was exhibited in a public room in Shrewsbury, and the town placarded, informing visitors of the fact, and yet no one went near to inspect it except two Russians, who dropped in towards

