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Farm Machinery -- Its Development

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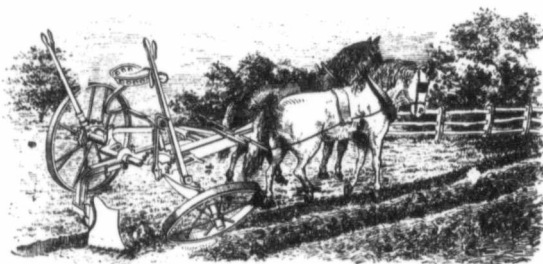
THERE is no more vital question at the present time to the farmer than that of his farm implements. It represents by far the greater part of the initial expenditure of every farmer in so far as equipment is concerned. We are living to-day in an age of farm machinery and it is absolutely necessary, if a man who tills the soil is to do so at a profit that he have a complete and up to date equipment. It is a thing that is worthy of very careful study and in farm machinery, as in everything else, the proper way to begin such a study is to begin with its history and its development. In this article I have tried to describe as briefly as possible the stages through which the greater part of farm machinery has passed in its rather uncertain but unsuccessful career and as the plow is the father of all farm implements we will begin with a discussion of that implement first.

Plows.

From the earliest times the "crooked stick" has been used to prepare the ground for the raising of agricultural crops; it is still

used in many parts of the world. Even in England a plow, properly so called, was unknown until the eighteenth century, and England was probably indebted to Flanders for the introduction of a wooden affair very much of the modern shape.

The first cast-iron plow, probably an English invention, was patented about 1785. An American cast-iron plow was made in 1797. Its inventors spent upward of \$30,000 in perfecting and introducing it, then abandoned the business in despair because the farmers of that day had in some mysterious manner acquired the idea that cast-iron plows "poisoned" the land, injured the fertility and "promoted the growth of rocks!" Even earlier than the date named, Thomas Jefferson, the third President of the United States, in a communication to the French Institute attempted to solve the mathematical problem of the true surface of the moldboard and to lay down intelligible and practical rules for its formation. Jefferson had several plows made



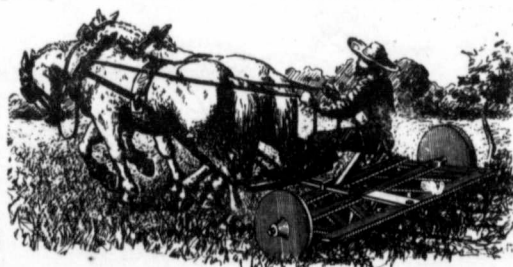
An Early Wheel Plow, 1584



The Primitive Hand Harrow

in 1793 and put them into use on his estates in Virginia. But it was twenty years later that the foundation for the modern plow was laid by an American named Wood. This plow also was of interchangeable parts—the share, shin, moldboard and landslide being so made as to be common to any plow. Sharing the fate of so many inventors, Mr. Wood, in spite of the sales that were regarded as extraordinary—for example, in New York City in 1817, 1,500; and in 1819, 3,600—not only did not profit by his improvement, but actually lost a large amount of money, and

many years afterwards the New York State Legislature appropriated \$2,000 for the benefit of his heirs. Wood, whose patents were dated 1814 and 1819, did more than any other man to replace the cumbersome contrivances then in use throughout the United States—as indeed, they also were in England—and a lighter, cheaper and more effective implement was the result; from that time improvements in these implements have been constantly made, all tending to increase the durability, efficiency and adaptability to the varied conditions of soil. Some of the notable steps in the progress toward perfection have been the invention of the chilled plow by James Oliver, the use of steel in point and moldboard, the new varieties of steel invented for this purpose, and the introduction of sulky or riding and gang plows. Perhaps the most noteworthy evolution of the implement in recent years has been the use of discs that penetrate the earth as they revolve in contact with it. The first practical patent in this line seems to have been dated



A Cultivator Patented in 1846