

THE PLOWSHARE AND PEACE.

An Address Delivered by A. B. Farquhar
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The plowshare and peace—how inspiring this happy alliance—this true blending of the useful and beautiful! Peace—in every mind associated with harmony and loveliness, the white robe, the dove, the horn of plenty—and the industrial device that makes its enjoyment possible! "Peace hath her victories, no less renowned than war," the great poet reminded the great commander, who, he said:

"Guided by faith and matchless fortitude,
To peace and truth thy glorious way hast ploughed,
And on the neck of crowned fortune proud
Hast reared God's trophies, and his work pursued"—

and the ever willing, ever efficient, though ever modest engine of those victories of peace, the earliest and most necessary of which appears in that first command to newly created man, "replenish the earth, and subdue it," is the homely plow.

A recent writer on agriculture has well said "that a tolerably correct estimate of the progress of the arts in any country, whether in ancient or modern times, may be formed by ascertaining the structure of the plow." For the history of the plow is the history of agriculture itself, and thus a chronicle of the progress of the human race toward material prosperity. It was spoken of in the books of Moses, and its pictures on the pyramids and tombs in Egypt are much older. Elisha was found at the plow when the mantle of Elijah came to be thrown upon him. We are told, both in the Bible and in Herodotus, of crops that increased a hundred-fold when the ground was well tilled, and how Job had 500 yoke of oxen for plowing. The Hebrews brought their knowledge of agriculture and skill with the plow from Egypt. They used to let the ground lie fallow and rest one year in every seven, just as they rested themselves one day in seven.

The references to the world of long ago bring up one or two recollections. At the head of literature stand up two grand old poets, Homer and Hesiod; one ostensibly of the sword, the other of the plow. It is remarkable, though the volume of the first is far greater, that there is no such loving and minute description of the sword in the one, as of the plow in the other. But it turns out that the mightier genius is not the bard of mere war, but rather of toil in its supreme degree, as the lot of man on earth; and his labor closes with the picture of wars all ended, righteousness established and agriculture flourishing. His most perfect man is a herdsman; while his god of war, like Mars, whom we might have expected to represent his ideal of glory, is painted in repulsive colors—a murder-

ous bully, and rather a cowardly one. His favorite gods, and those who come with most glory out of his hands, are Pallas and Apollo, the spirits of industry and art. But since the Greeks committed the tillage of their soil to its subdued and enslaved natives, they, for the most part, looked upon that pursuit with disdain. The Romans, on the other hand, ranked agriculture among the most honorable vocations, as the well-known story of their great Cincinnatus reminds us; and the literature of Rome Cato, Cicero, Virgil and Pliny is full of pastorals and tributes to the plowman. Some of Pliny's essays on agriculture are as good as anything we have today. The plows of the Romans must have had some resemblance to ours, inasmuch as the ancient writers speak of the mould-board, shares, coulter and even of coulter shares and plow wheels; but there was no device for overturning the turf. That was left for our century. From a careful study of Roman history it may be taken as a proverb that she conquered no more by the sword than by the plow; the moment resistance was quelled, out went the agricultural colony, and the new domain was incorporated with the old, and thus the empire grew. But Rome perished by the sword she had drawn, and she lived to after ages by the plow, for with it followed her law and her language, with all she had that was best and noblest.

A statute of early Britain forbids the use of horses in tilling the ground, probably for the reason that the peasants had discovered no better way of hitching the horses to their plows but by the tail, and that was regarded as barbarous. Oxen were almost exclusively used in this work until after 1500. We have no knowledge of a plow worthy of the name during the Dark Ages, from the sixth to the middle of the seventeenth century, when the metal mould-board was first introduced by Small, a Scotchman, in 1784—not long after a fellow-Scotchman, James Watt, perfected his epoch-making improvement in the steam engine. Iron-sheathed wooden plows were first brought to this country in 1617 and set to work in the colony of Virginia. In 1788 Thomas Jefferson paid great attention to this implement, believing that it would prove a principal factor in the progress and wealth of this country. He made many experiments and wrote a number of treatises on the subject, and to his son-in-law, Thomas Randolph, we owe the first hillside or swivel plow. In 1819 Jethro Wood of New York state manufactured the first iron plow of the present style, used throughout the civilized world, with share, mould and landslide, and it was one of the world's greatest inventions. For the name of this important benefactor of his kind, cyclopædias and dictionaries may be searched in vain, though their pages are stuffed with stories of men who butcher their brethren.

Plows before Wood's day were commonly, like the oldest plows I remember, made of wood sheathed with iron, probably resembling those in use in Rome 2,000 years ago.

It would not be difficult to write a volume upon the subject of plows of numerous kinds, sub-soil, jointer, double mould, ditching, swivel, gang, sulky and steam plows, and fill it with reminiscences. About forty years ago, shortly after I commenced manufacturing, Mr. Fawls of Lancaster got up a steam plow which he said was going to revolutionize plowing—probably in somewhat the same way as his ancestor Guy proposed revolutionizing the government of England. This invention consisted of a species of traction engine mounted on a large roller to which was attached a gang of plows. He had it at the state fair of Illinois in September of 1859 where he plowed an acre in twelve minutes and was awarded the grand prize of \$3,000. Two years ago I saw traction engines in California pulling gangs of twenty plows, plowing an acre in about ten minutes.

When compared with what the plow has accomplished for the human race, how empty seem the boasted triumphs of the sword! The wealth and prosperity of the Roman empire were due to tillage, not to pillage, and Rome's long decline may be traced in the decline of her plow. The improvements in this instrument of progress, which this century brought in, have added thousands of millions to the world's wealth, enabling millions to live in comfort who could otherwise not have lived at all. Look at the condition of the agricultural worker two hundred years ago, before these improvements were invented. Even in Great Britain he commonly lived in a one-story hovel of one room without windows or chimney, rather like a pig than a man. Nations progress as the plow carves the way. For two thousand years no progress came to Greece, whose soil is still broken by a plow of the age of Pericles. The same is largely true of Cuba and Spain. Agriculture in Spain today is far behind the point to which the Moors developed it 1,000 years ago. The plow has not improved there, and the people have not advanced. While traveling in Cuba I saw men scratching the ground with forked sticks, such as were used by Pharaoh's serfs 2,000 years ago. I asked through my guide why they did not buy our improved plows. They replied that it would be an insult to the memory of their fathers and grandfathers who had always scratched the ground with sticks. To expect enlightenment of any kind from such people is like asking figs from thistles. In parts of Russia the means of tillage are of the same description. After filling an order for improved plows some dozen years ago I wrote to learn how the purchasers were succeeding with them. The reply