

## THE ECONOMY OF MACHINERY.



THE wonderful scientific inventions of recent years are immense factors in the material revolution which has taken place in the economic world. They have simplified the process of agriculture, lessened the hardship of labor, and increased the productive power of energy and industry, and facilitated more perfect work. Even the soil is rendered more fertile under the treatment of effective machinery. The great majority, if not all, of those inventions may be classified as elements of wealth and are largely instrumental in increasing the prosperity of nations. They have not only improved the conditions of man, and raised the standard of life, but they have also stimulated labor and capital into greater activity.

To the different inventors the greatest honor is due. There is no calling or occupation more admirable than that of the inventor. He who does that which has never been done before, and shows his fellow-men how to make improved use of the forces of nature, confers an unlimited favor upon the world at large. The number and value of inventions have increased so rapidly of recent years that the people have come to accept the most wonderful innovations with readiness; nevertheless the triumphs of those discoveries are the results of the labor of thinkers who have kept in advance of the crowd and added to the sum of human knowledge. We can easily imagine the inconveniences which would exist without the numberless labor-saving machines now in operation, and such would be the case were it not for the genius of the inventors.

A spade or a hammer, in Political Economy, is considered a machine in as much as it is an instrument to facilitate the work of production. But such simple instruments, in general, are called tools while the more complicated ones are spoken of as machines. The latter usually is applied to a construction resulting from the combination of several elements ingeniously disposed to easily and efficaciously obtain a certain result. Both machine and tools are used as a means to control the natural forces and direct them towards the accomplishment of our designs.

The division of labor has been to a certain extent the cause of inventions of machinery. Each machine performs only one part in the production of an article. When one man has to labor always to secure the same object, and his whole attention is centred on