

seed from healthy moths should be used. Two peasants brought him five healthy moths. Nothing could be done till the following spring. Then the critics opened fire. "He knows," said they, "nothing about silkworms. He is but a chemist." Pasteur only replied: "Have patience."

In the spring he bred sixteen broods of healthy worms. He had succeeded. But no! In the sixteenth disease was found. He was stunned, but not discouraged. He found a second disease—"flacherie." "Now," said he, "we must go further back. The disease must be acquired at the time of reproduction. It is in the egg. The seed is to be examined carefully by the microscope. The diseased eggs must be smothered, the healthy preserved and used.



JOHN TYNDALL, 1820-93.



LORD LISTER.

Now the scientific genius had succeeded. Greed, ignorance, and individual interest still opposed him, but the battle was won. In France, Italy, Austria, and elsewhere large nurseries (magnaneries) were built, girls trained to use the microscope rejected the diseased seed, and in time the silkworm industry was completely restored.

The loss in France and Italy by the silkworm disease in the thirteen years preceding Pasteur's investigation was nearly six hundred millions of dollars. Who can estimate the value to his country of the single-minded scientist?

French Wines.

At the close of Pasteur's great battle with Pouchet the noted scientist had his attention called to the diseases of wines, wine production being one of the greatest industries of his native country. "Might not," said he "these be caused by 'organized ferments, microscopic vegetations'—which made acid wines, bitter wines, ropy wines, sour wines, etc. His native town of Arbois had offered to build Pasteur a laboratory for studying the wine disease. This