

SCIENCE

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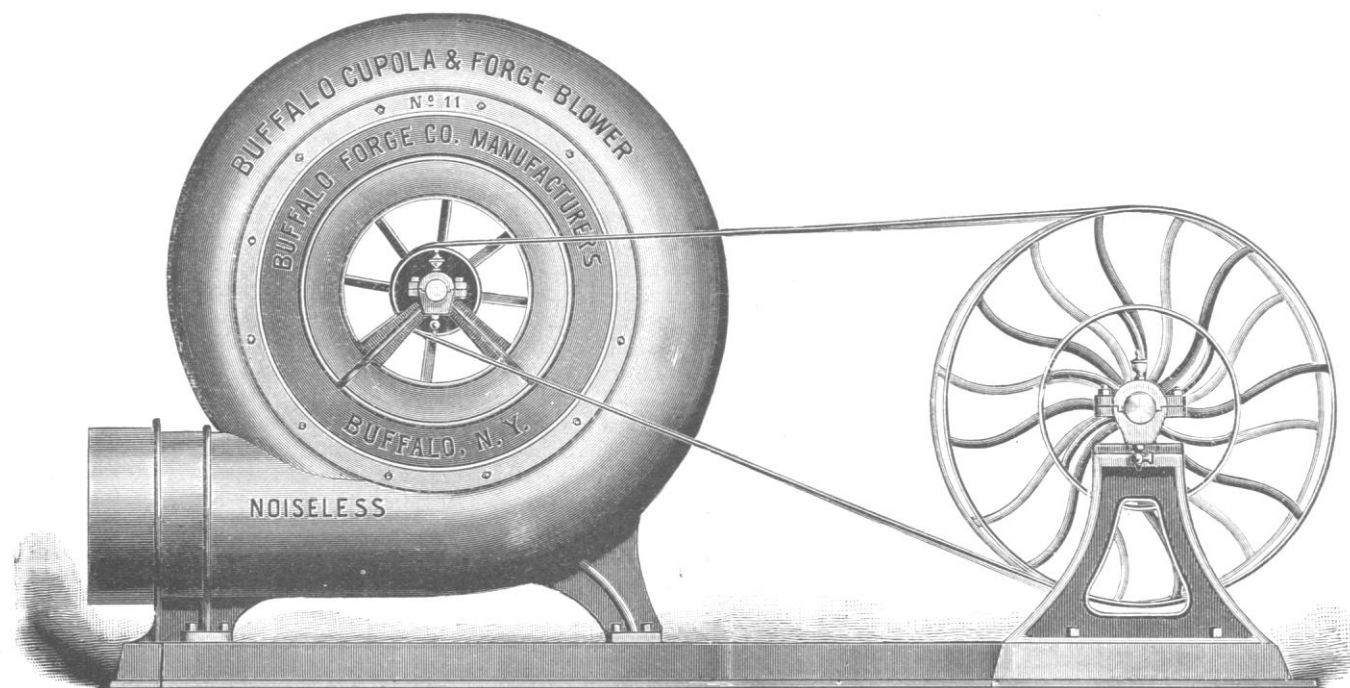
A STEEL PRESSURE-BLOWER.

THE annexed engraving illustrates a steel pressure-blower on a recently perfected pattern of adjustable bed with countershaft, designed and constructed with special reference to high-pressure duty, such as supplying blast for cupola furnaces, forge-fires, and sand-blast machines, also for forcing air long distances. By means of a tightening-screw, the blower may be moved upon the bed while running at full speed, taking up any slack, giving both belts a uniform tension, which is regulated at the will of the operator. This is a very important point in preventing the inconvenience and loss incurred by a stoppage during heat when blowers are used for cupola purposes. By the use of this adjusting device, a great saving is made in the wear and tear of belts, for a simple turn or two

stretches with immunity from heat or cutting. A distinguishing feature of these blowers is the solid case, the peripheral portion of the shell being cast in one solid piece, thus dispensing with objectionable joints. The journals are long and heavy, and have cap-bearings secured by bolts held firmly in place by lock-nuts. It is made by the Buffalo Forge Company, Buffalo, N. Y.

THE TOBACCO-PLANT.

AFTER the cereals, there is perhaps no plant so extensively cultivated and utilized as the tobacco-plant. It is grown and employed as a narcotic in almost every country of the world, and it has been calculated that one-fourth of the human family use it.



A STEEL PRESSURE-BLOWER.

of the nut on the adjusting-screw, and a retightening of the holding-down bolts, take but a moment, and accomplish the same end as relacing the belts, which usually is put off until the belt will run no longer on account of slack. Special attention should be directed to pressure-blower belts, on account of the high rate of speed at which they must necessarily run; and absolutely perfect alignment of the countershaft with the blower is essential in order to secure smooth running and even tracking, as well as to avoid undue wear of belts by slipping.

A telescopic mouth-piece is employed on this blower, in order that the piping may not be disarranged in moving the machine on the bed, and the countershaft is long enough to carry tight and loose pulleys for the main driving-belt. A self-oiling device fitted to the countershaft enables it to be run at high speeds for long

At the Colonial Exhibition in London, according to the *Journal of the Society of Arts*, the dried leaf and its preparations were shown by India and every one of the British possessions, and the Paris Exhibition has supplemented this display by showing its extensive production in Europe, North and South America, eastern Asia, the Pacific Islands, and the continent of Africa.

It is somewhat difficult to obtain trustworthy information regarding the world's trade in tobacco, because so much is used up locally in different countries. It is probable that the total area under cultivation is not far short of 6,000,000 acres. For the year 1886 certain official returns are available, which show that the United States, India, and Hungary are the largest producers.

The area under tobacco in acres was, in the United States, 752,520; India, 641,000; Hungary and Austria, 149,468; Germany,