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NEW SERIES.

Machine for Making Sisal Hemp.

There is no field of invention which promises larger results than the adaptation of some vegetable fiber to manufacture into articles of clothing, cordage, paper, &c. We are anticipating as possible, and, indeed, as not altogether improbable, the advent at any time of an invention in this line, the stupendous effects of which will equal those of Whitney's cotton gin. Though flax has received a larger share of the attention directed to this subject than any other plant, there are many others which have not been entirely overlooked, and among these are the *Agave Americana* or *Planta de Queniquen*. This is a tropical plant, growing spontaneously in Yucatan, Cuba, Florida and other places, in great abundance, and yielding two crops a year. The leaves of this plant are composed of fibers similar to those of hemp, but these fibers are covered by the fleshy part of the plant. When this fleshy portion is removed, the fibers form what is known in our markets as "sisal hemp," and attempts have been made to remove it by machinery, but it adheres so firmly to the fiber that all these attempts have been heretofore unsuccessful. After numerous experiments, Edward Juanes y Patrullo, of Merida, in the State of Yucatan, and Republic of Mexico, has succeeded in contriving a machine which accomplishes the work perfectly. This machine is illustrated in the accompanying engraving.

The leaves, divided into strips of suitable width, are fed in between two fluted rollers, *a*, when they are struck by the beaters, *b b*, upon the drum, *c*, and carried up over the drum between it and the cap, *d*, the cap

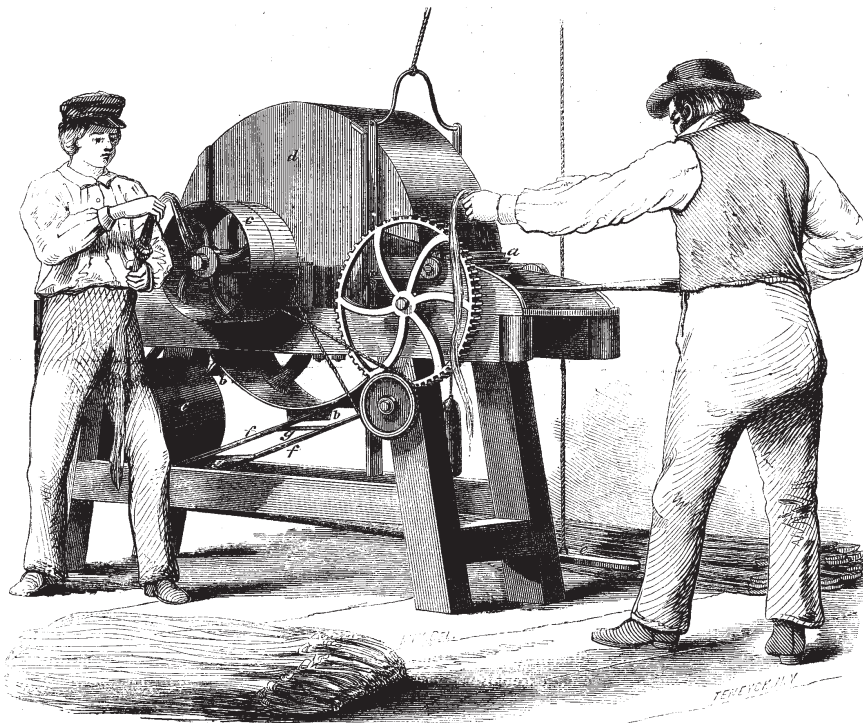
serving to hold the leaves down so that they may be acted upon by the beaters. One-half of the beaters have serrated or comb-shaped edges, while the edges of the other half are plain, the two kinds being arranged alternately. The smooth edges break the fleshy coating of the leaves, and it is then scraped off by the beaters with the serrated edges. Each strip is fed in until half of it is dressed, when the upper fluted roller is raised by depressing the treadle, *e*, and the strip is reversed to complete the dressing.

As the beaters are liable to collect the matter which they scrape from the leaves, provision is made for keeping them clear. To this end, two narrow belts, *ff*, connected by metallic bars, *g*, are run beneath the drum, *c*, in such proximity that they will scrape the beaters and keep them clean.

This valuable invention has been secured by two patents, dated March 5, 1861, and April 23, 1861, through the Scientific American Patent Agency, and applications have also been made for patents in some of the foreign countries.

Further information in relation to the matter may

be obtained by addressing the inventor at No. 20 Lispenard-street, New York.



PATRULLO'S MACHINE FOR MAKING SISAL HEMP.