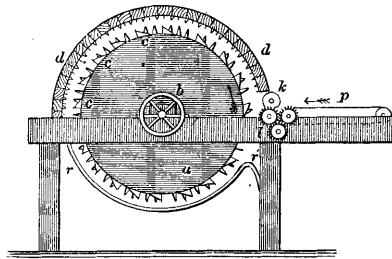


O'pen-ing-ma-chine'. A machine for loosening the tussocks of cotton as it comes from the bale, so that the offal and dust may be removed and the fibers parted. The machine has several forms, known as *willy*, *willower*, *devil*, *wolf*, *beating-machine*, *cotton-cleaner*; and when associated with a blast of air, as *blowing-machine*, *scutcher*, *blower*, and *spreader*.

It consists of a wooden drum *a*, having rows of iron spikes alternating on its circumference with upright iron ridges *c c c*, which prevent the cotton from passing through the machine too rapidly. The top of the drum is covered with a wooden lid *d d*,

Fig. 3401.



Opening-Machine.

consisting of *lags* of wood curved to the shape of the drum, and having similar spikes and ridges.

These lags are capable of being singly moved for the purpose of cleaning or repairing. The lower part of the drum is covered in with the brass wire-gauze *r*, which has an opening at *r'*, through which the cleaned cotton is removed, the dust and impurities falling through the gauze.

The machine is fed from the *feed-cloth p*, upon which the cotton is spread out by hand, and from which it is taken by the grooved nipping-rollers *k l*. The drum is driven by the pulley *b* at the rate of 400 to 450 revolutions per minute. The machine can prepare 1,000 to 1,200 pounds of cotton in a day.