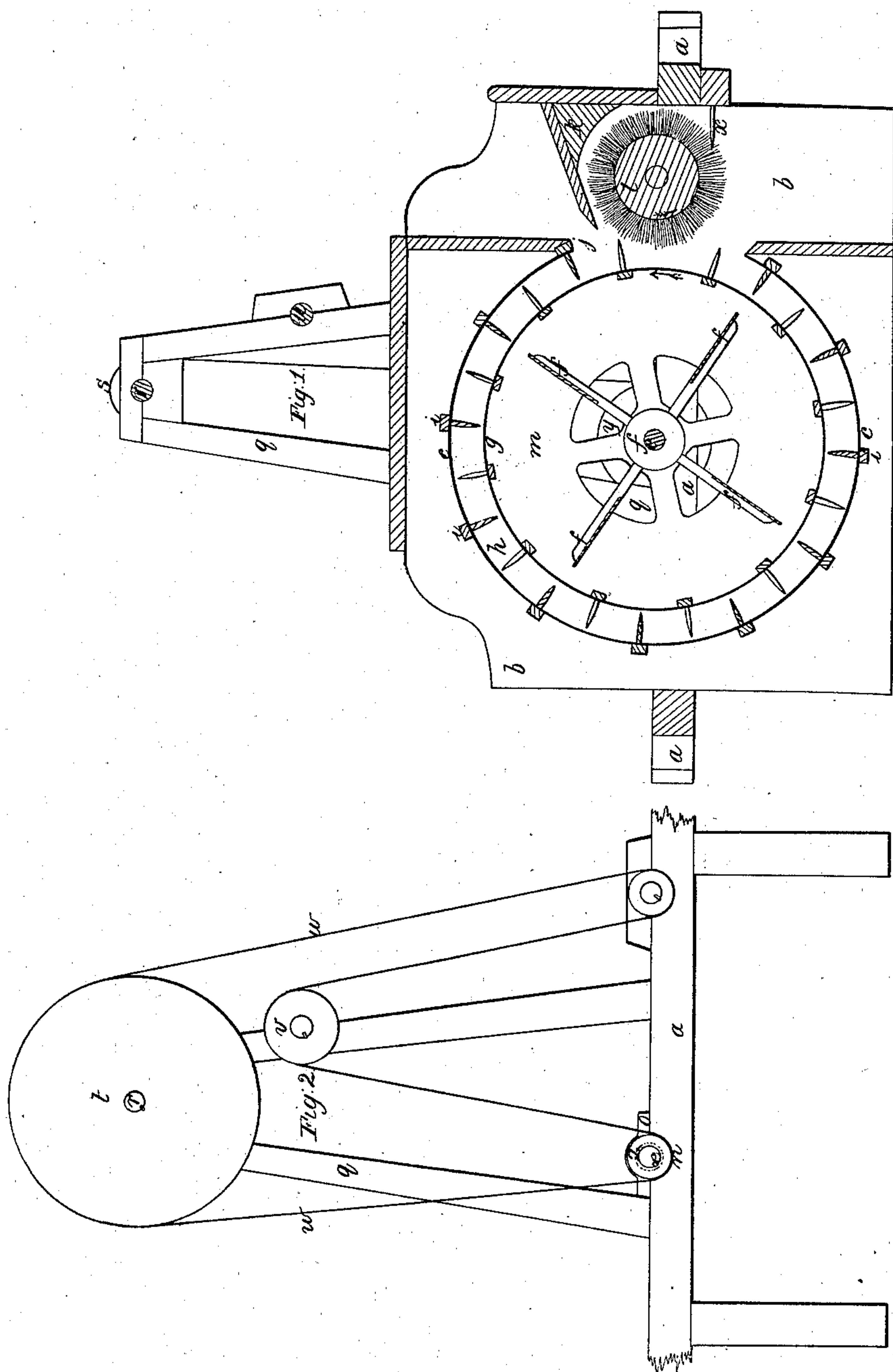


C. LEAVITT.
MACHINE FOR CLEANING COTTON.

No. 10,762.

Patented Apr. 11, 1854.



UNITED STATES PATENT OFFICE.

CHARLES LEAVITT, OF QUINCY, ILLINOIS, ASSIGNOR TO S. R. COCKRILL, OF NASHVILLE, TENNESSEE.

MACHINE FOR CLEANING COTTON.

Specification of Letters Patent No. 10,762, dated April 11, 1854.

To all whom it may concern:

Be it known that I, CHARLES LEAVITT, of the city of Quincy, county of Adams, and State of Illinois, have invented a new and
5 useful Machine for Dusting Cotton Previous to Ginning the Same; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had
10 to the annexed drawing, making a part of this specification, in which—

Figure 1 is a vertical section, and Fig. 2 the frame with pulleys and belts not shown in Fig. 1.

15 The nature of my invention consists in a method of cleaning cotton and freeing it from motes, dust, and impurities, previous to ginning it, the latter operation having the tendency to incorporate the dust and
20 impurities so intimately with the fiber that it is difficult to obtain a clean article. By preceding the ginning operation by my method of cleaning the cotton, while attached to the seed the article is made to pre-
25 sent a much better appearance and the fiber being less bruised it is more marketable, and of superior quality.

I make a frame consisting of four pieces (a). The long sides of this frame are closed
30 in by boards (b) sufficiently high to embrace the circular concave screen (c) and sufficiently low to touch the ground. Circular openings are made in each side (b) for the purpose of admitting air to the wind wheel
35 (f) and sufficiently large to give facility of access to the heads of the revolving screen (g). The concave screen (c) is made of open wire work fastened to annular heads (h) which are secured to the sides (b).
40 The concave is supported on the outside by ribs (i) fastened to the heads (h) and these ribs are furnished with teeth projecting inwardly through the wire work, and at sufficiently wide distances apart to pass between
45 corresponding teeth on similar ribs on the inside of the revolving screen (g) which project outwardly through the wire work thereof. The concave screen (c) has a suitable opening at (j) for the admission of the
50 cotton above the hopper bottom (k) and for its abduction below the hopper by the revolving stripper (l) which lies athwart the same end of the frame. The revolving screen (g) is attached to a head (m) which
55 is driven by the power used to operate the

machine, this head having a spindle running in a box on the frame (a) the driving pulley (y) being fixed to this spindle. The other head of the revolving screen has a hollow journal (z) running in a box (o)
60 on the opposite side of the frame (a) through which the shaft (e) of the wind wheel (f) passes having a driving pulley (n) thereon the other end of the shaft (e) runs in a socket in the center of the head
65 (m). The belting is arranged with regard to suitable velocities for the different parts by means of the standards (q), in boxes on the top of which runs the shaft (r) carrying on each end, pulleys; one (s) of small diame-
70 ter to cooperate with the pulley (y) on the spindle and drive the wind wheel by means of the large pulley (t) on the other end of the shaft (r). On the hopper side of the standards (q) another shaft (u) is hung in
75 boxes and carries on the same side of the machine with the large pulley (t) a small pulley (v) which enables the same belt (w) to operate the wind wheel and the cylindrical stripper (l) by making an inverted V
80 lap of the belt, which thus moves four pulleys of suitable diameters for the proper velocities to be given to the wind wheel (f) and the stripper (l) both of which are
85 driven at high velocities, while the revolving screen is driven at comparatively low speed so as to carry the cotton slowly, without breaking the seed or the fiber, and give the wind wheel which runs within the screen
90 the greatest possible chance to blow out, the motes, dust, and other impurities as the teeth on the ribs of the revolving screen gently loosen the fibers of the cotton, allowing the seeds to pass to be afterward ex-
95 tracted by the gin. The top of the machine on a level with the side, and the hopper end of the concave are covered in. The cylindrical stripper is also covered in, and a hopper is thus formed for feeding the machine,
100 the ordinary rake (x) is used and fixed to the frame for the purpose of clearing the stripper of the cotton as it gathers from the screen. The machine may be attached to any of the common forms of cotton gins, so
105 that the cotton may pass from it at once to the gin.

What I claim as my invention and desire to secure by Letters Patent, is—

My method of arranging the several parts involved in extracting the motes, dust, and
110

other impurities from cotton previous to and
preparatory for ginning the same, substan-
tially in the manner and for the purpose
described; that is combining a wire screen
5 concave with a revolving wire screen cylin-
der or their equivalents, and a wind wheel
or fan; revolving within the cylinder, both
cylinder and concave being armed with
teeth set in ribs so distant apart with re-
10 gard to the teeth, as to permit the cotton
seed to pass, while the fiber alone is loosened,
the revolving screen running slowly in com-
parison with the wind wheel which is driven

at great velocity, thereby adapting the ma-
chine to the particular purpose specified, viz: 15
freeing cotton from motes, dust, and other
impurities while attached to the seed, pre-
vious to ginning the same.

In testimony whereof I have hereunto set
my hand this seventeenth day of June 1853; 20
the same being a true description of my in-
vention.

CHARLES LEAVITT.

Attest:

THOS. G. CLINTON,
CHAS. EVERETT.