

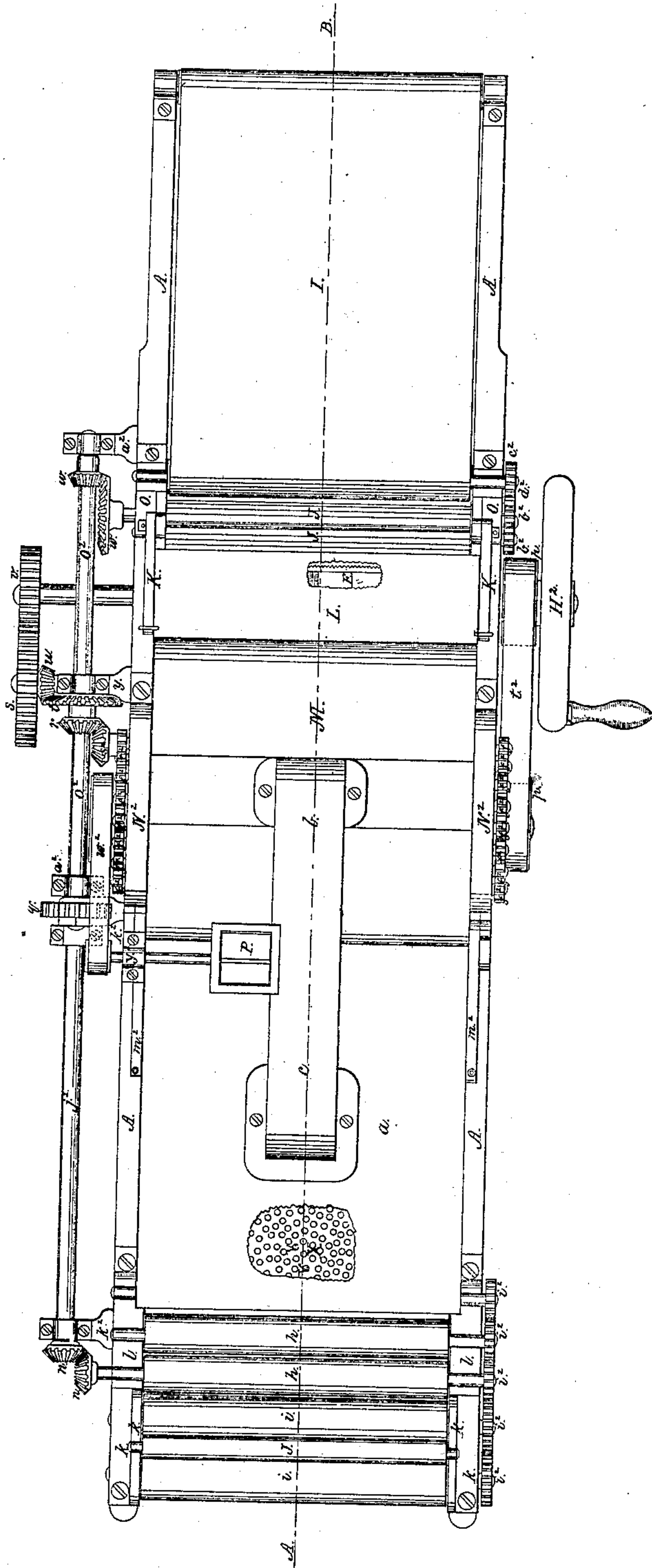
S. W. Brown.
Machine for Picking Cotton.

Sheet 1-4 Sheets.

N^o 13,564.

Patented Sept. 18, 1855.

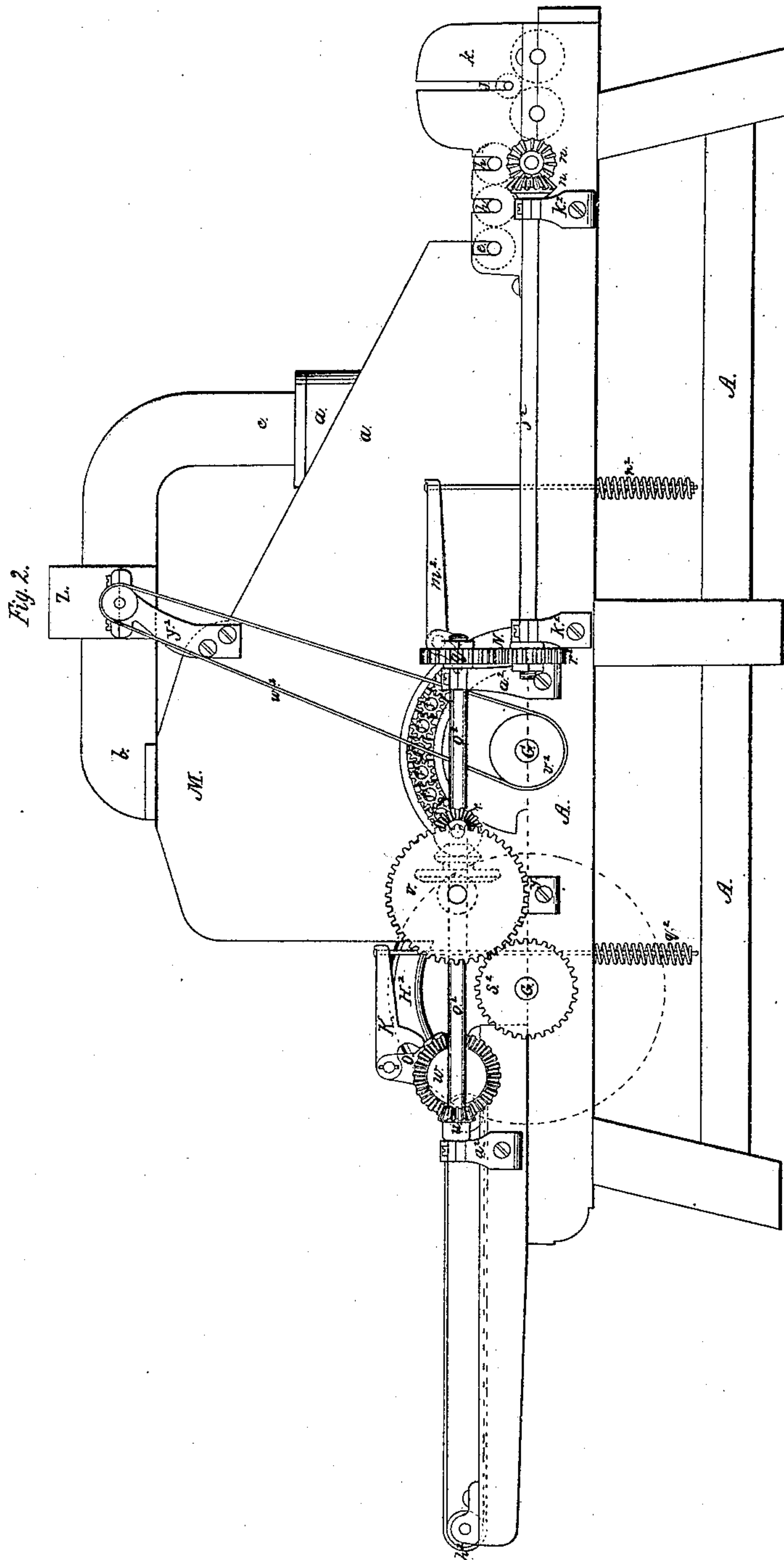
Fig. 1.



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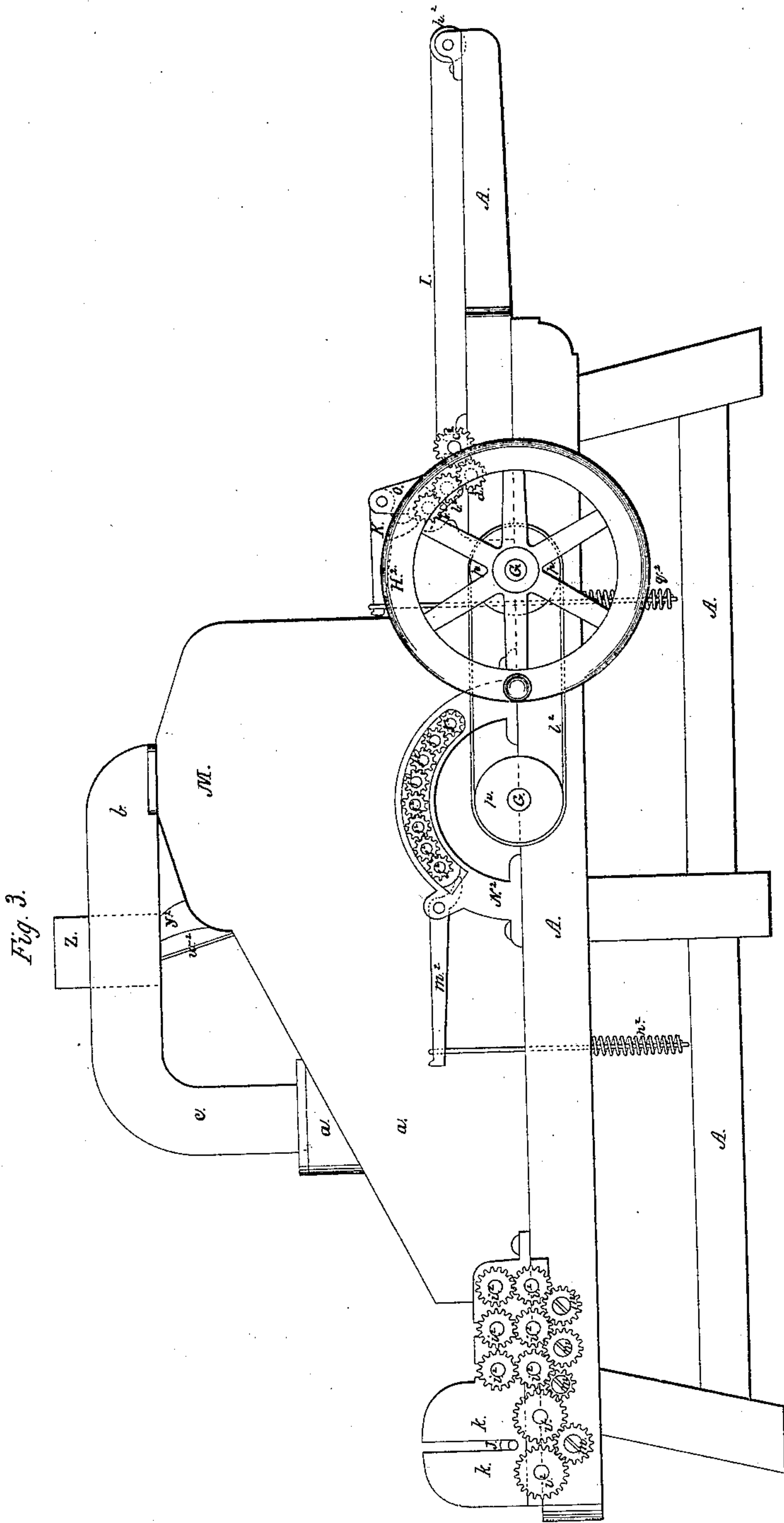
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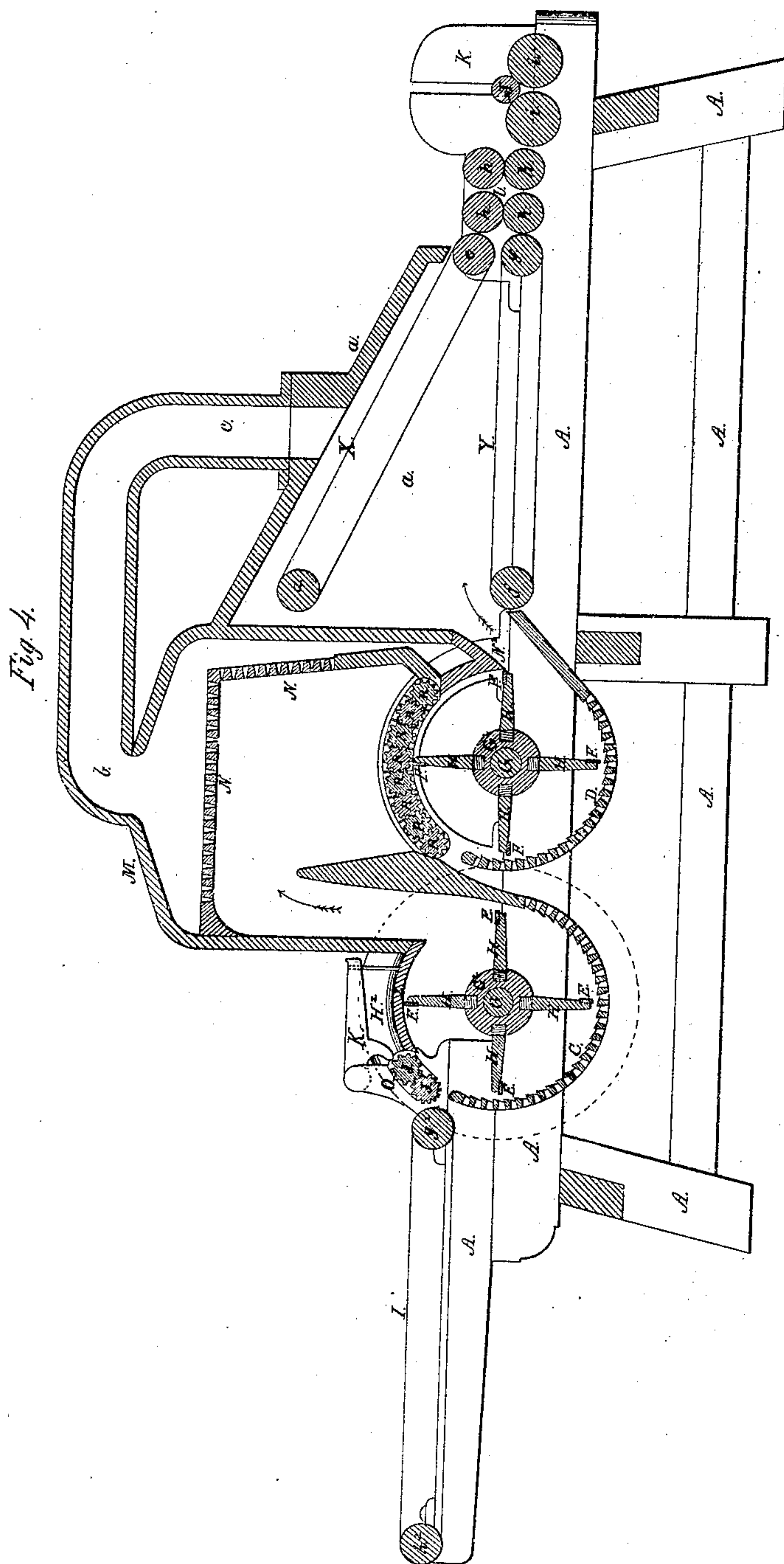
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Sheet 4 - 4 Sheets.

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UNITED STATES PATENT OFFICE.

SAMUEL W. BROWN, OF LOWELL, MASSACHUSETTS.

MACHINERY FOR CLEANING COTTON.

Specification of Letters Patent No. 13,564, dated September 18, 1855.

To all whom it may concern:

Be it known that I, SAMUEL W. BROWN, of Lowell, in the county of Middlesex and State of Massachusetts, have invented a
5 new and useful Machine for Picking Cotton; and I hereby declare that the following specification, in connection with the accompanying drawings; constitutes a full, clear, and exact description of the construction and use of the same.

In referring to the drawings, Figure 1, denotes a plan or top view, Fig. 2, a right side elevation. Fig. 3, a left side elevation; Fig. 4, a longitudinal and vertical section at
15 A, B, Fig. 1.

The nature of my said invention consists in more effectually picking and cleaning cotton by drawing and separating the fine dirt, dust, &c., from the cotton by exhausting the
20 air and dirt from above the cotton as it is thrown forward above the secondary feed rolls. And in employing two or more sets of secondary feed rolls, to conduct the cotton to the second beater in several different
25 places.

To enable persons skilled in the art to which my invention appertains to construct and carry out the same, I will describe it as follows: I construct a frame of wood seen at
30 A, A, to which I attach my improved iron grids, which can be seen at C and D. Above each of these grids I place the iron beaters seen at E, the beaters being firmly secured to substantial iron shafts seen at G, by
35 means of the iron arms H, and rings G². These shafts should be properly fitted so as to revolve in substantial metallic bearings.

At I can be seen the feed apron and at J, J, Fig. 1 the first set of feed rolls which
40 are forced or pressed together by the lever K and spring q² attached to it, at O can be seen the stands to support the rolls J, there should be a bonnet formed as seen at L, and placed over the first beaters E for preventing the cotton from flying away where
45 it is not intended.

Back of the bonnet L and over the second beaters F should be formed a dome or exhauster seen at M, in the interior of which
50 a rack N is placed to prevent the cotton from being drawn off with the dirt there being a place left between the surface of the dome and the rack. At the top of the dome is formed a dust pipe seen at b which leads
55 to the pipe z, in which the fan or blower P is placed to operate and which must re-

volve with velocity, for the purpose of drawing the dust and fine dirt from the cotton as it is driven along by the first beater E, into the dome M.

At R, R, R, R, can be seen several sets of secondary feed rolls supported by the arches N², which revolve and conduct the cotton from the dome M to the second beater F in several different places so that this
60 beater will strike and more thoroughly agitate the fibers of the cotton by reason of these secondary feed rolls conducting the cotton to the second beaters in several different places.

The driving pulleys on the beater shafts can be seen at p, p, connected and driven by belt l². On one of the shafts is placed the balance wheel or crank H². On the opposite end of this shaft G is fitted the gear v,
75 which gears into and drives the gear s, to operate the various feed movements. On one end of the driving shaft G I place the pulley v² which drives the fan P by means of the belt w², the out end of this fan shaft
80 being sustained by the stand y². On the hub of the gear s is placed the bevel pinion u, these being both sustained by the stand y. The bevel pinion u gears into and communicates motion to the bevel gear t, on the
85 hub of which is placed the bevel gear r, they being properly sustained by the stand y. The bevel gear r gears into and imparts motion to the bevel gear S² and also by the hub of the gear t to the shaft O² on which
90 it is placed and fastened. This shaft O² is properly sustained in the stands a², a², and imparts motion to the lower feed roll J by means of the bevel gears w. The lower feed roll J drives the upper one by means of
95 the gears b². The apron I is also driven from the lower feed roll J, by means of the gear c² and d² the apron being revolved around the rolls h² and q².

The secondary feed rolls R, R, R, R, are
100 driven by the bevel gears r, and s², one of them being fastened to the shaft O², and the gears f² on both ends of these rolls to keep the movement of them connected if they should be pressed apart at either end
105 by the cotton, these rolls being pressed together by the levers m², and springs n², operating on the boxes in which these rolls revolve.

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

1. I claim my within described dome hav-

ing a rack or grid in the upper portion of it,
under which the cotton is thrown by the
first beater in connection with the fan in
the exhaust pipe leading from the top of the
5 dome, for exhausting the dust from the
cotton as it is thrown forward by the first
beater, essentially in the manner and for
the purposes set forth.

2. I claim the use and application of two
10 or more sets of secondary feed rolls in con-
nection with the beaters, which rolls take

the cotton from the dome and deliver it to
the second beaters, in several different
places, so as to completely separate and
agitate the cotton, to straighten and even 15
the fibers and force the dirt from it, essen-
tially in the manner and for the purposes set
forth.

SAMUEL W. BROWN.

Witnesses:

E. W. SCOTT,

BENJ. ROBINSON.