Sheet 1. 2 Sheets.

O. Griswold.

Waste Picking Mach.

No. 275. Patented Jul. 17, 1837.

Fig: 1.

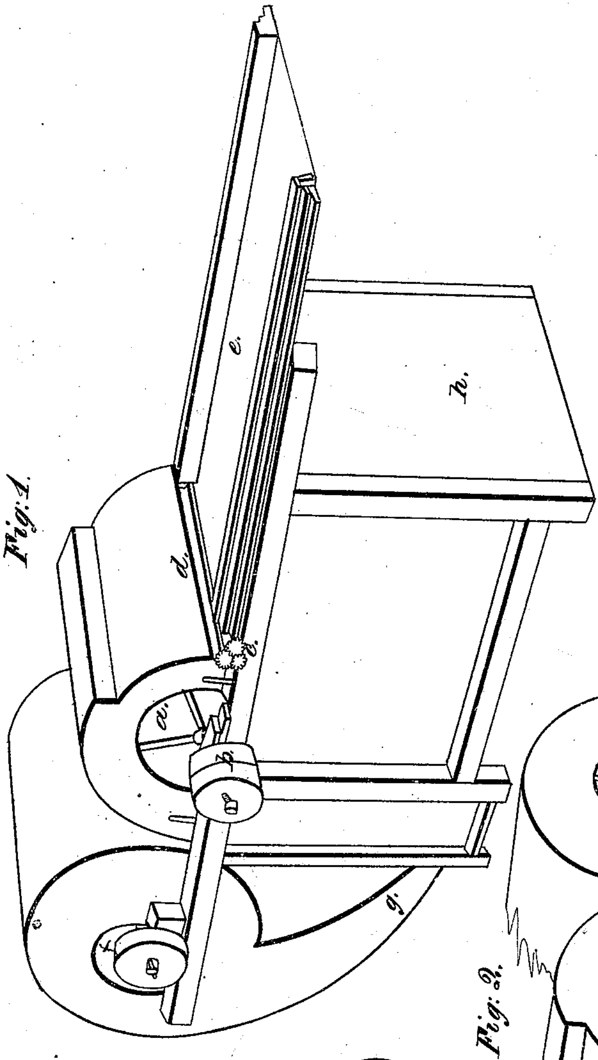


Fig: 3.

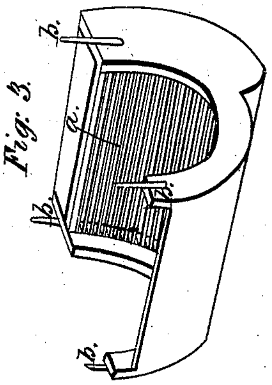


Fig: 2.

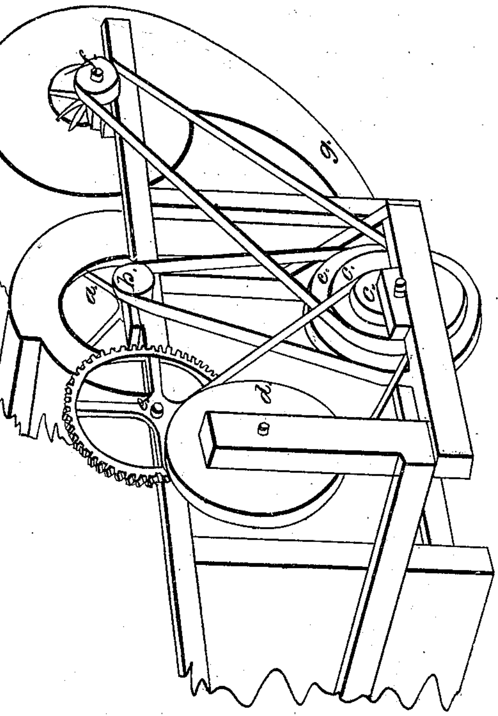
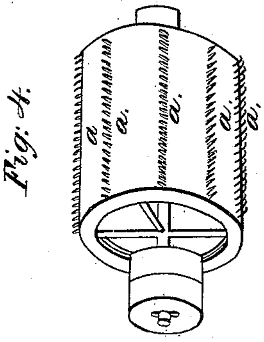


Fig: 4.



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Sheet 2. 2 Sheets.

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Fig: 3.

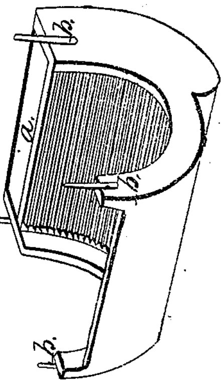


Fig: 5.

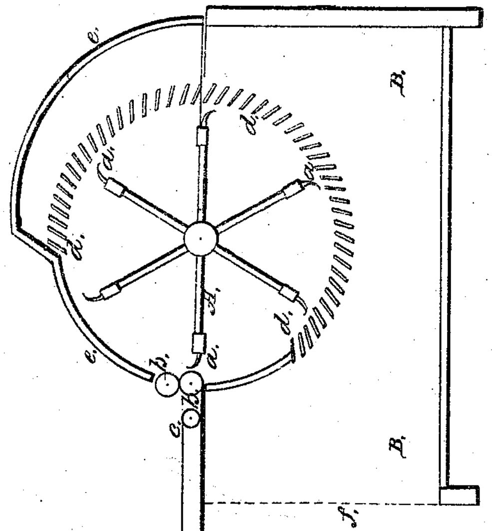
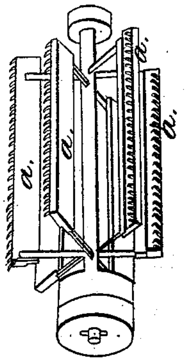


Fig: 4.



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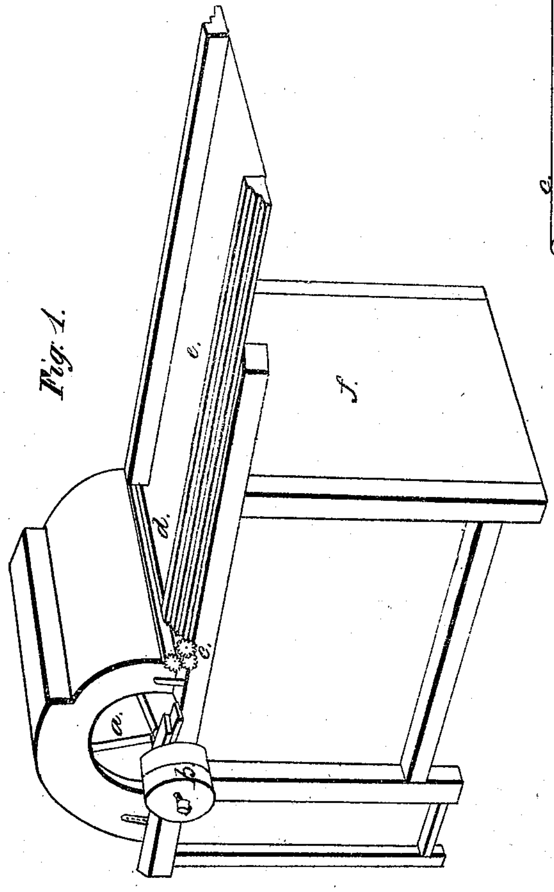
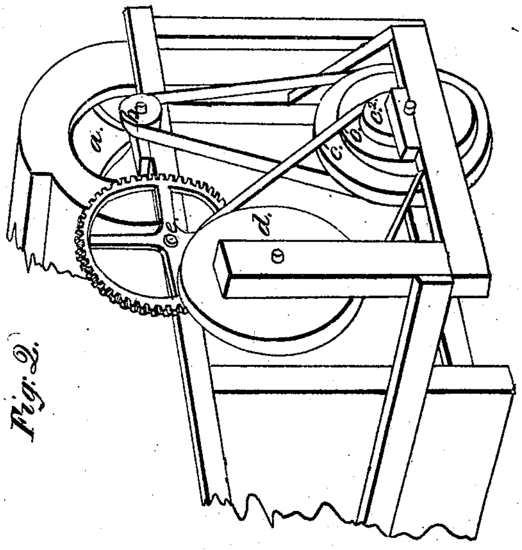


Fig: 2.



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UNITED STATES PATENT OFFICE.

OGDEN GRISWOLD, OF HARTFORD, CONNECTICUT.

MACHINE FOR REDUCING THREAD-WASTE TO THE STATE OF COTTON WOOL.

Specification of Letters Patent No. 275, dated July 17, 1837.

To all whom it may concern:

Be it known that I, Ogden Griswold, of Hartford, in the county of Hartford and State of Connecticut, have invented a machine by means of which the thread-waste produced in the operations of the cotton factory is reduced to the state of cotton wool, so that it may be again spun into thread; and I do hereby declare that the following is a full and exact description thereof.

The thread waste is placed upon a feeding apron, and is conducted by feeding rollers to a revolving reel, or cylinder, set along the projecting bars, or periphery, with hooked teeth, by which teeth the threads are caught, and whirled round with great rapidity. The reel, or cylinder, is surrounded for more than half its circuit by plates of iron, which I denominate knives, against the edges of which the threads are beaten, causing them to untwist, and to separate into fibers. These knives extend from side to side of the frame of the machine; they may be about one and a quarter inch wide, and from half to three-fourths of an inch apart; they are, lengthwise, parallel to the axis of the reel, or cylinder, and, widthwise, form an angle of about forty degrees with its radii.

In the accompanying drawing, Figure 5, Plate No. 1, (continued) is a vertical section of the machine, from front to back. A, is the reel which is to be driven by a whirl and band, or in any other convenient way; it is represented with six arms, and the longitudinal bars, strips, or beaters, which they sustain are furnished with hooked teeth, *a*, *a*, *a*, which seize hold of the threads as they pass between feeding rollers *b*, *b*, from the feed, or endless apron *c*, *c*. The knives *d*, *d*, against which the threads are beaten, allow the loosened fibers to pass between them into the open space, B, B, of the box, or case, of the machine. A cover, or casing, *e*, *e*, passes over, and incloses, the upper part of the box, while the end, *f*, represented by a dotted line, is left open. When the reel is employed, its rapid revolution creates a wind which suffices to blow the fibrous cotton through, and out of, this end of the machine, openings being left in the casing around the axes of the reel, for the supply of air for that purpose.

Fig. 1, Plate 1, is a perspective view of the machine; *a*, being the reel, *b* the fast and loose pulley on its shaft, *d* the feed rollers, *e* the apron, and *f* the open end of the machine.

Fig. 2, shows the general arrangement of the pulleys &c., on the opposite side of the machine; *a*, the reel, *b*, a whirl on its shaft. with a band from it to *c*, a whirl from c^2, on the same shaft, carrying a band to *d*, which drives the gearing of the feed apron.

Fig. 3, is an inside view of the cap, or casing, *a* being the range of knives, and *b*, *b*, the bolts by which it is attached to the main case, or box.

Fig. 4, shows the reel separately, *a*, *a* being the beaters, with their hooks, or teeth.

Plate 2, represents another modification of my machine, in which a cylinder is used instead of the reel, the teeth being set along its periphery. In this case, it is necessary to use a fan-wheel, the cylinder not affording the requisite supply of wind. Excepting in these particulars, the machines are identical, operating upon the same principle, and producing a like effect.

In Fig. 1, *g*, is the case of the fan-wheel, which is contained, and revolves, in its upper part *f*, while its lower end conducts the wind to the bottom of the case, blowing the cotton out at the open end, *h*. Figs. 2, 3 and 4, in this plate, are analogous to those in plate 1, and do not require any description.

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

The construction and arrangement of the respective parts of the within described machine, in which the waste threads are caught upon hooks, pins, or teeth, on a revolving reel, or cylinder, and are whirled round and beaten against the edges of knives, or metal plates, so as to untwist them, and separate their fibers, substantially in the manner herein set forth.

OGDEN GRISWOLD.

Witnesses:
Thos. P. Jones,
Clement T. Coote.