

No. 31,993.

PATENTED APR. 9, 1861.

S. ORR.
APPARATUS FOR DRESSING FEATHERS.

Fig. 3.

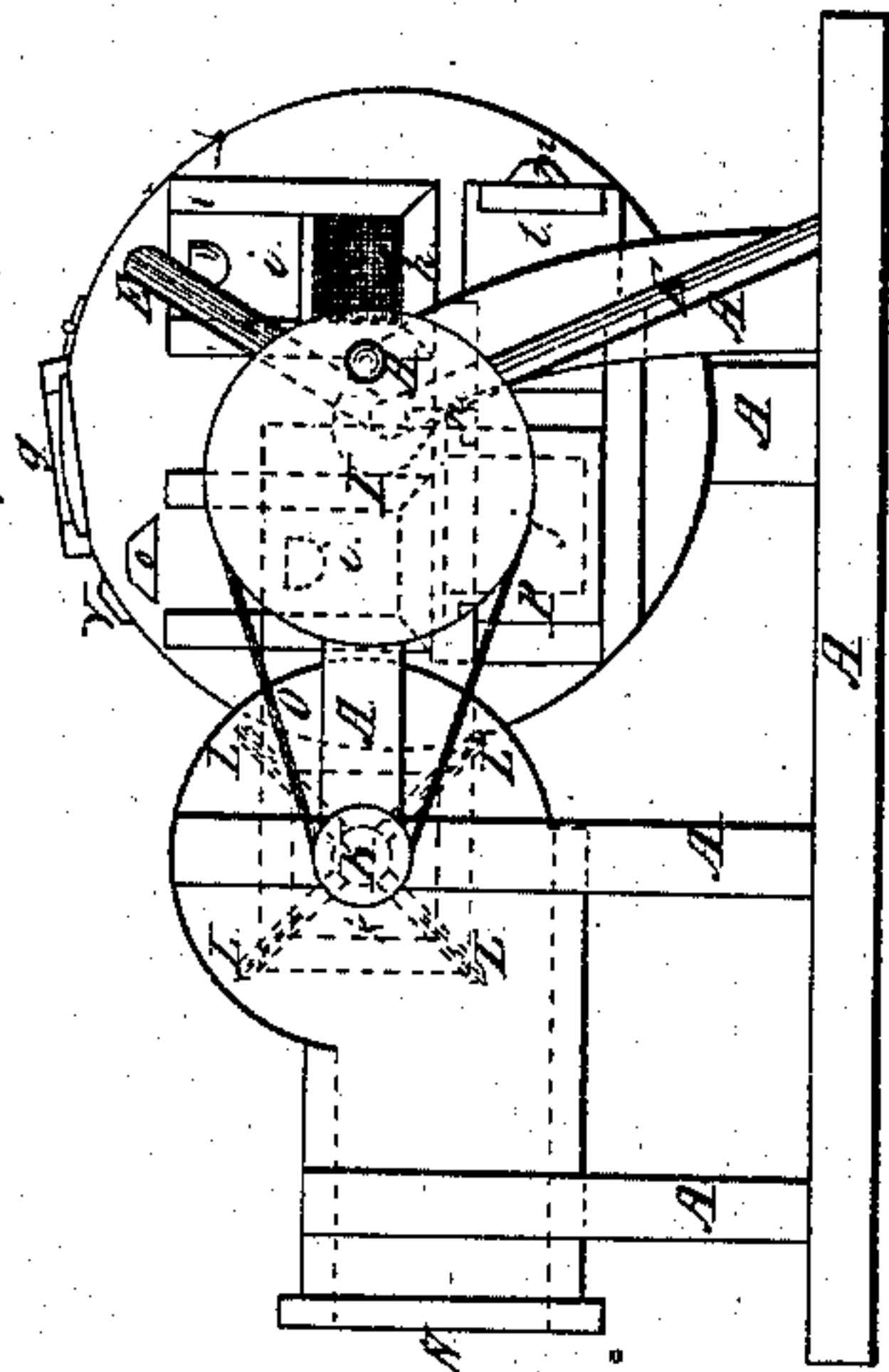


Fig. 4.

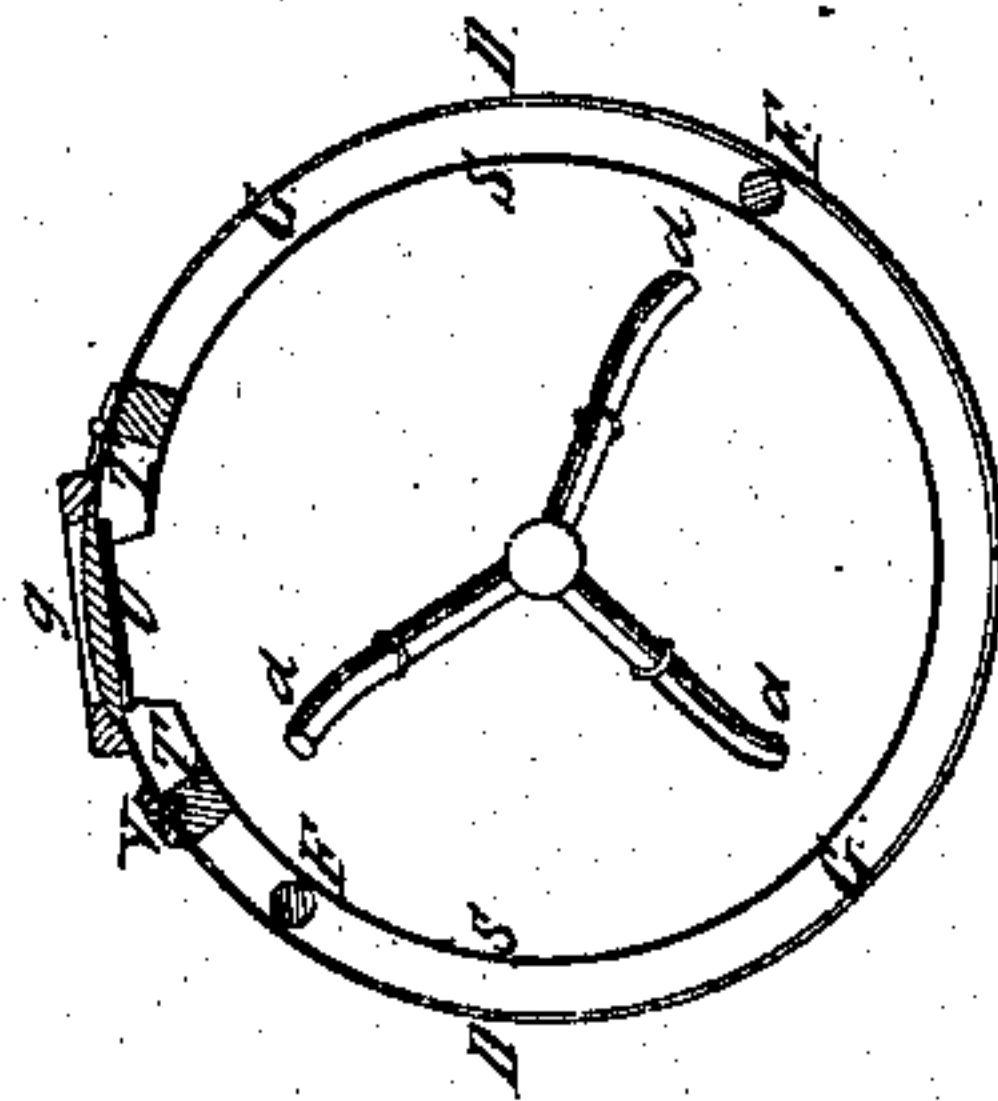


Fig. 1.

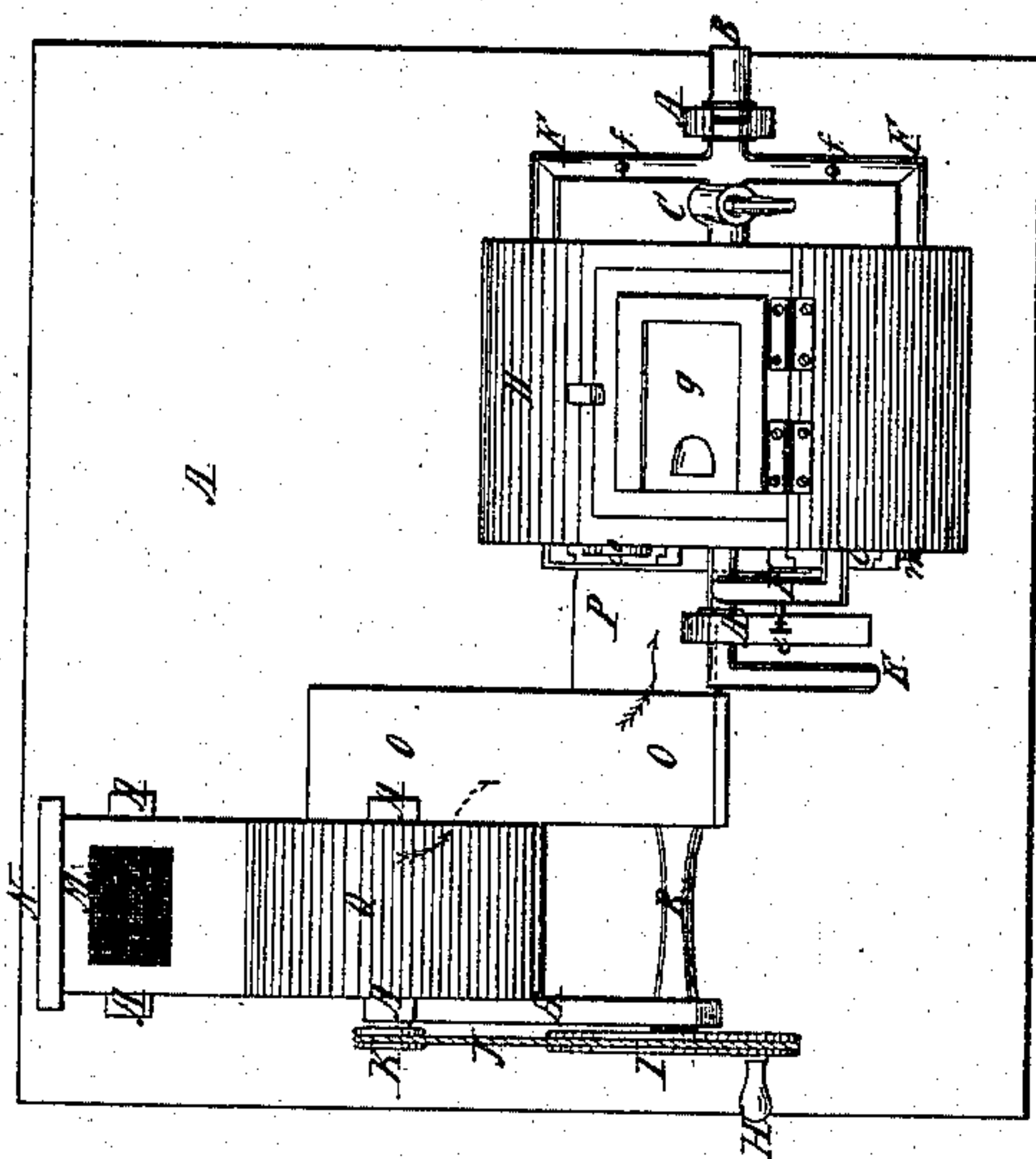
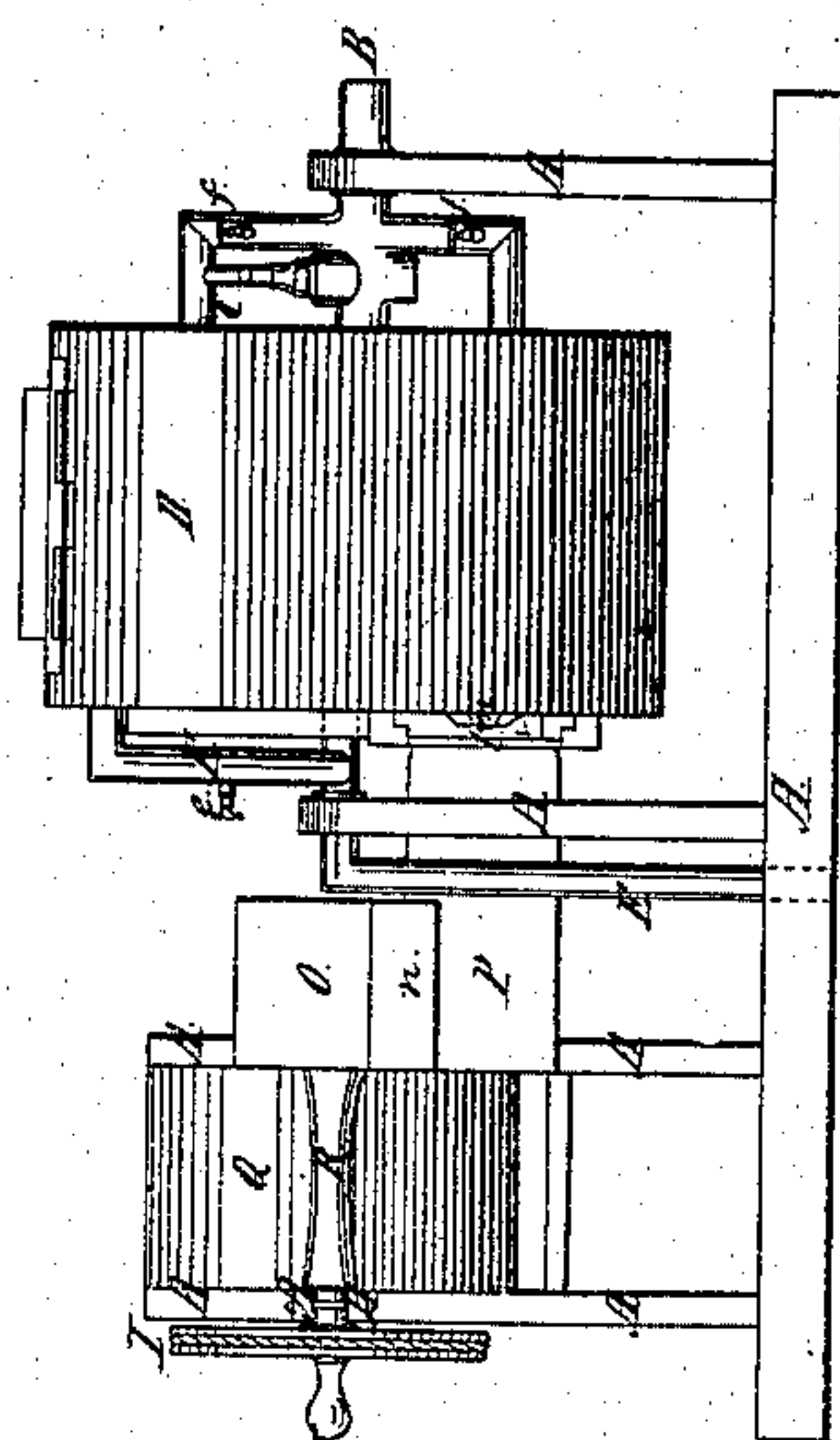


Fig. 2.



Witnesses.
J. W. Howard.
E. R. Mansbury.

S. Orr Inventor.
By his Attorney
Chas F. Mansbury

UNITED STATES PATENT OFFICE.

SAMUEL ORR, OF EAST SPRINGFIELD, OHIO.

APPARATUS FOR DRESSING FEATHERS.

Specification of Letters Patent No. 31,993, dated April 9, 1861.

To all whom it may concern:

Be it known that I, SAMUEL ORR, of East Springfield, county of Jefferson, and State of Ohio, have invented new and useful Improvements in Feather-Dressing Machines; and I do hereby declare the following to be a correct description thereof, reference being had to the accompanying drawings and to the letters of reference marked thereon.

The same letter refers to the same part wherever it occurs.

Figure 1, is a top view of the machine; Fig. 2, an end elevation; Fig. 3, a side elevation; Fig. 4, a vertical section of steaming chamber or cylinder.

The nature of my invention consists in the various improvements in apparatus for steaming and drying feathers, hereinafter described. The first of these consists in combining with the steam jacket of a feather dressing machine screen covered with slides, as hereinafter described. The second consists in the peculiar arrangement and combination of cocks and pipes with a steam chamber and steam jacket, as hereinafter more particularly set forth.

My third improvement consists in the addition, to a feather dressing apparatus, of a fan, in the manner hereinafter described, for the purpose of cooling and airing the feathers, and feeding them to the sack or tick when completely cleansed and dry.

To enable others to make and use my invention, I will proceed to describe more fully its construction and operation.

In the accompanying drawings A marks the frame of the machine; B, connecting steam pipe; C, inlet cock in pipe B; D, steaming and drying chamber or cylinder; E, exit pipe for waste steam and water; F, pipes conveying steam into the drying apartment G, between the two rims; G, steam chamber between the rims S and D, used for drying purposes; H, handle; I, wheel or pulley where any suitable power is applied; J, band or cord driving the fan; K, pulley on fan shaft; L, the fan; M, screen near mouth of fan chamber; N, mouth of fan chamber; O, box tube from fan to sliding box P; P, sliding box communication between O and cylinder; Q, fan chamber; R, shaft or axle of wheel or pulley I; S, inner rim forming drying chamber; T, separating partitions to which rims D and S are attached; U, screen in door of cylin-

der; V, button fastening door of cylinder; *d*, branch pipes leading from B into steaming apartment of cylinder; *e*, outlet cock; *f*, *f*, inlet cocks to drying apartment; *g*, sliding cover of screen in top of steaming cylinder; *h*, screen in end of cylinder; *i*, slides over screens in the end of steam chamber; *j*, slide over exit opening of steaming chamber; *k*, opening in fan box communicating with O; *l*, sliding door in end of cylinder; *m*, stop for same; *n*, guides on which P, slides; *o*, stop for slides *i*.

The steaming cylinder is made with a double rim, having a chamber or steam space G between the two rims. Its axis is a pipe B, furnished with an inlet cock C. The feathers are put into the cylinder through the door *g*. The steam is let in by means of cock C and through branch pipes *d*, *d*. The cylinder is revolved for some 10 or 15 minutes in order to mix the feathers and steam thoroughly. When sufficiently steamed, the steam is shut off by turning the cock C, and the steam let out of the cylinder. Steam is then let into the drying chamber G, through cocks *f*, *f*, the cylinder being revolved about 30 minutes, in order to scatter the feathers, and present them uniformly to the drying surface S; the operator meanwhile having the slide *g* withdrawn, so that dampness and dust may escape through screen U. When sufficiently dry, the mouth of sliding box P is connected with an opening in the end of cylinder, thus forming a communication, through boxes P and O, into the fan L. The mouth of a sack or tick is then attached to the mouth N of the fan box Q, and while the feathers in the cylinder are being stirred up with a stick, or in any other convenient manner, the pulley I is turned by handle H, and this by means of band J revolves the fan L, and creates a suction from the cylinder into the fan chamber, and a blast thence to the attached sack or tick.

The screen M is necessary as an outlet for the air in the sack, as without this arrangement the air in the sack would prevent the blast from forcing the feathers therein. This fan also thoroughly cools and airs the feathers before they are bagged.

Having thus fully described my invention, what I claim, and desire to secure by Letters Patent of the United States, is,

1. The combination with the steam jacket

of a feather dressing machine, of screens covered with slides arranged and operating substantially as described.

2. The combination with a steam chamber and steam jacket arranged as described, of the pipes B, F, and cocks C, f, arranged and operating as described.

3. The combination with a feather dressing machine constructed as described of a

fan arranged and operating in the manner 10 set forth.

The above specification signed and witnessed this twenty-fifth day of September, A. D. 1860.

SAMUEL ORR.

Witnesses:

ANDW. STUART,

J. H. BRISTOR.