

Platt v. Wildman, Forming Bats

No. 29441.

Patented July 31, 1860.

Fig 2^d

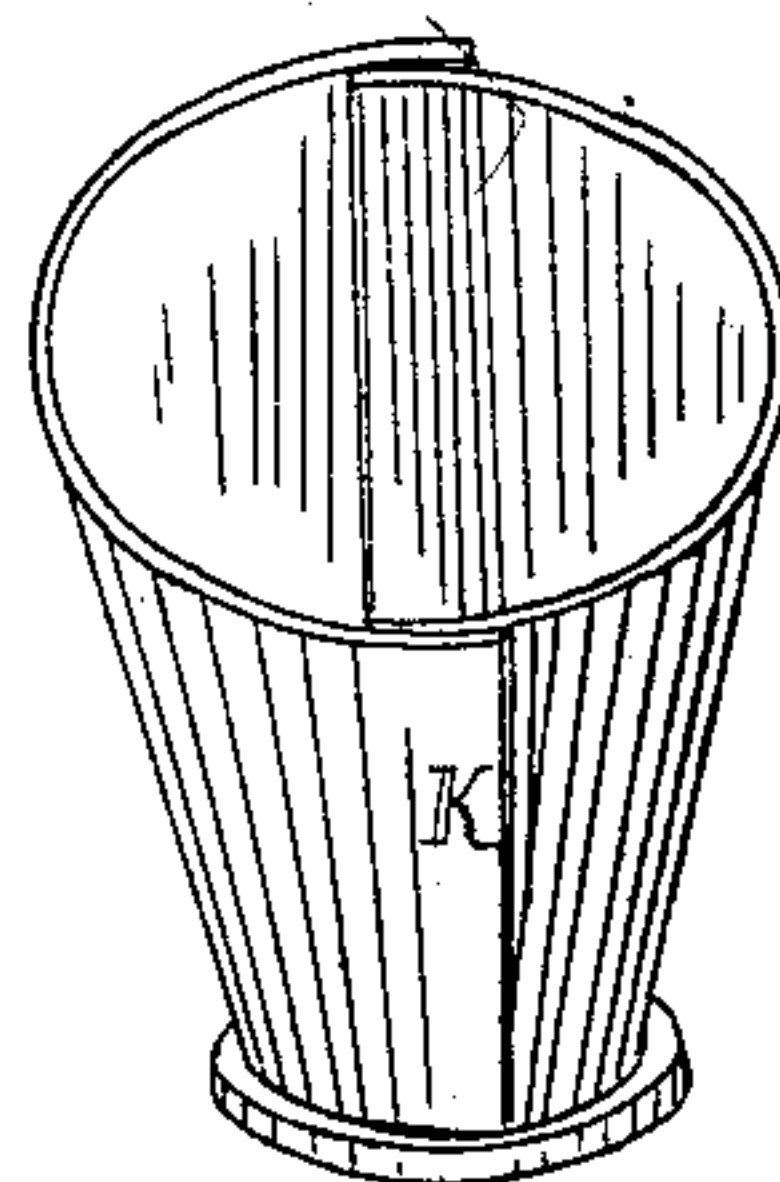
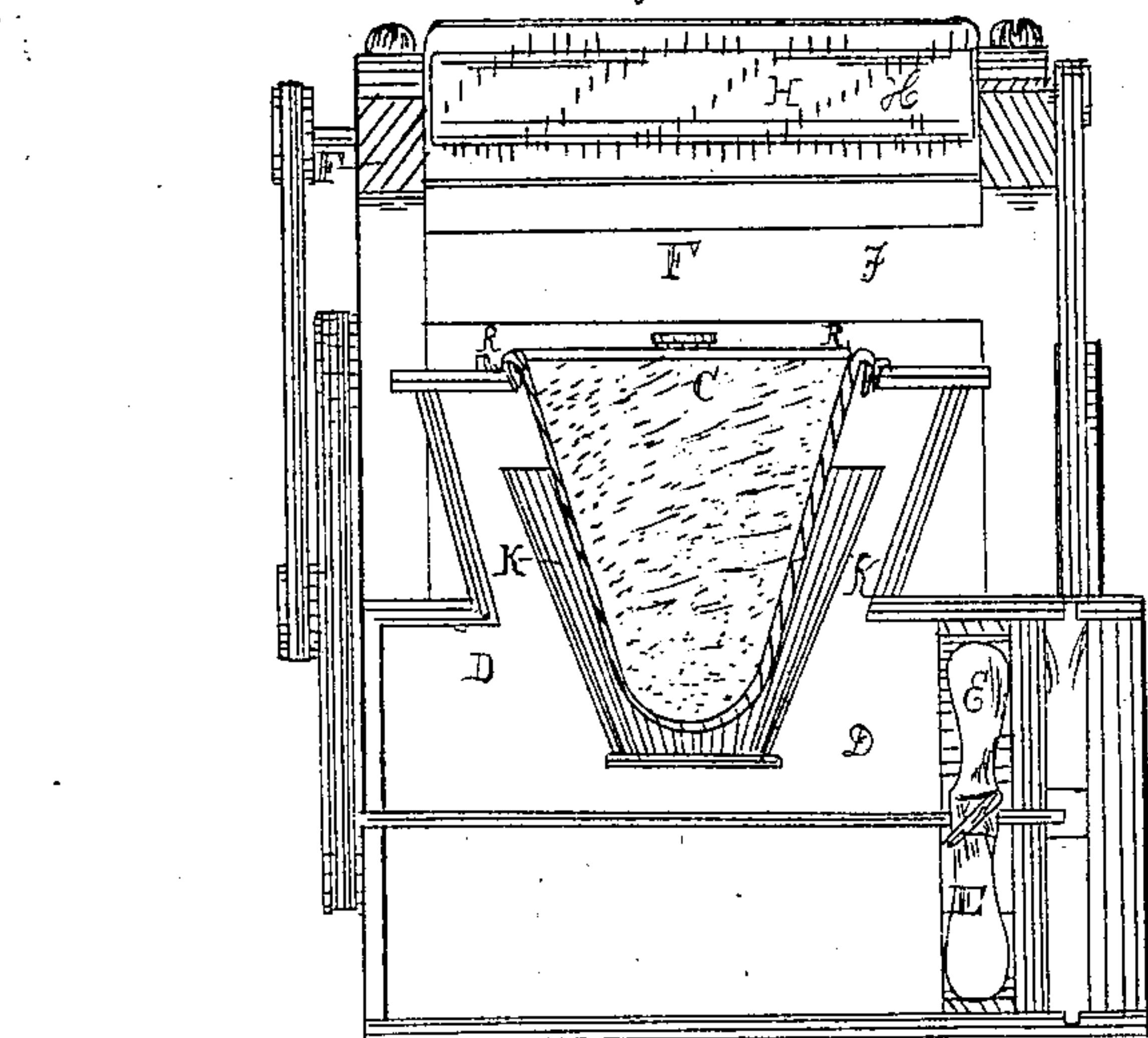


Fig. 4.

Fig 3^d

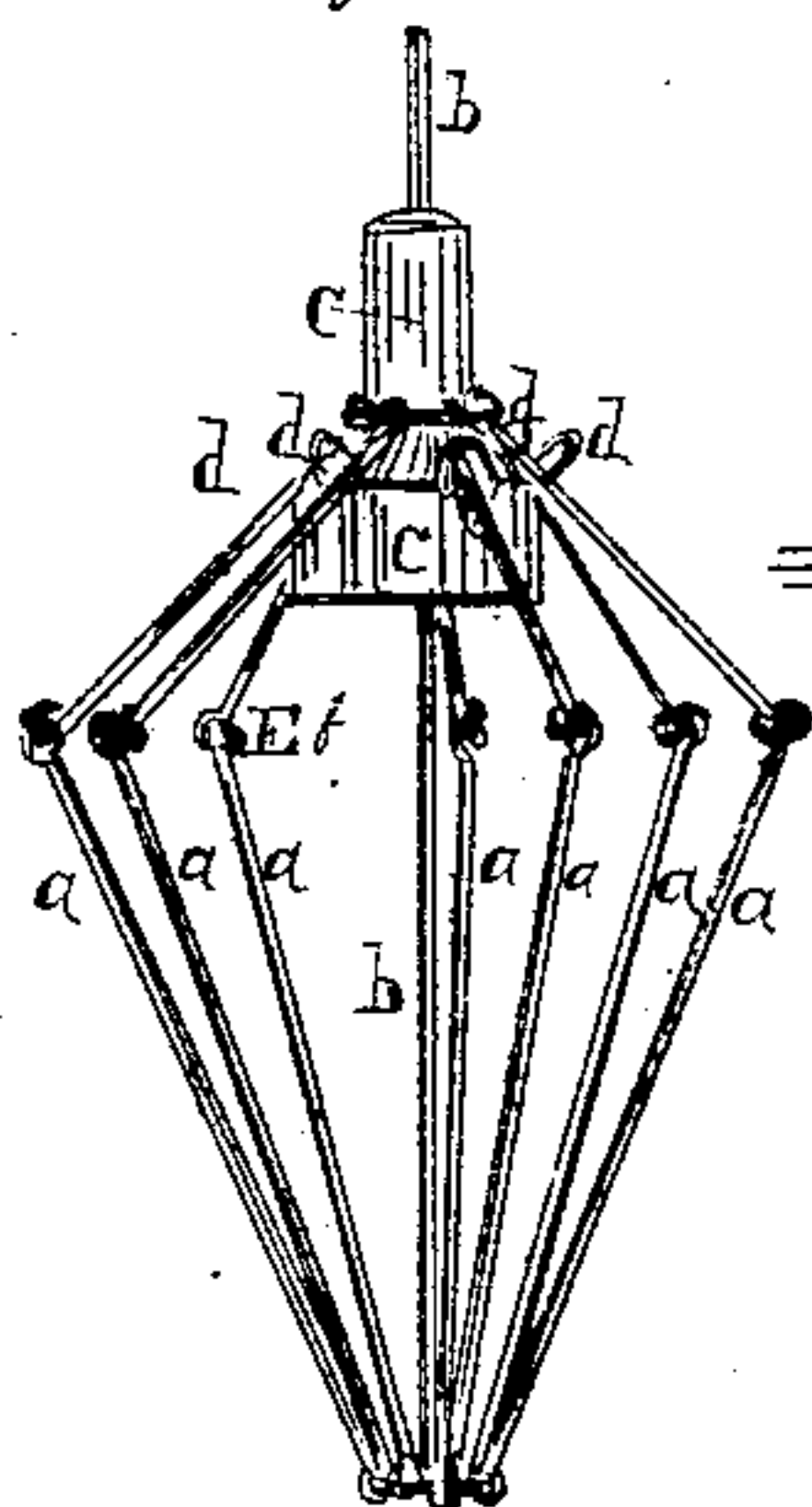
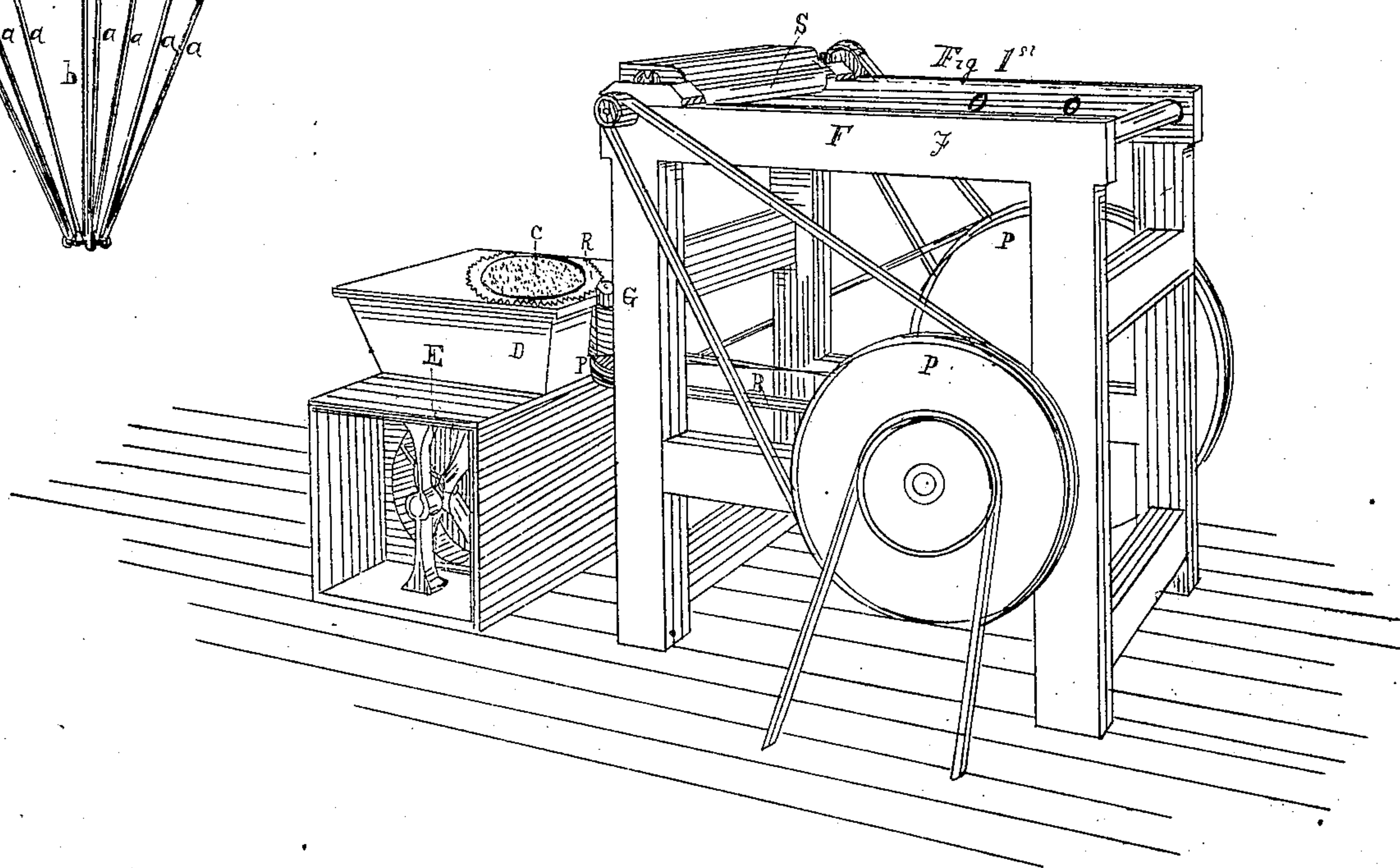


Fig 1st



Witness
Wm P Comstock
L S Comstock

Symon Platt
Rupert Wildman

UNITED STATES PATENT OFFICE.

LYMAN PLATT AND RUSSEL WILDMAN, OF DANBURY, CONNECTICUT, ASSIGNORS TO THEMSELVES AND JAMES S. TAYLOR, OF SAME PLACE.

MACHINERY FOR FORMING HAT-BODIES.

Specification of Letters Patent No. 29,441, dated July 31, 1860.

To all whom it may concern:

Be it known that we, LYMAN PLATT and RUSSEL WILDMAN, of Danbury, county of Fairfield, and State of Connecticut, have invented new and useful Improvements in Machinery for Forming Fur Hats; and we do hereby declare that the following is a clear, full, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, to wit:

The nature of our invention consists in forming fur hats upon the inside of an inverted perforated or wire cone lined with a removable lining, grass cloth or any flexible material pervious to air. The fur is thrown out by the picker and drawn into and held upon the inside of the cone and its lining by the exhausting fan; after the fur is deposited upon said cone or lining we place a second lining inside of the hat by means of an expanding frame, thus inclosing the hat between two linings which hold the hat securely while it is removed from the cone. It is then ready for the hardening process.

To enable others skilled in the art to make and use our invention we proceed to describe the construction and operation of the invention, reference being had to the annexed drawings making a part of this specification, in which—

Figure 1, is a perspective view; Fig. 2 a transverse section of the cone lining, exhaust chamber, shield and exhausting fan. Fig. 3, is a perspective view of the expanding wire frame. Fig. 4 is a view showing shield K.

The frame E, F, Fig. 1, supports the driving shaft, pulleys P, P, feed apron O, roller S, and picker H Fig. 2, all constructed and operating after the usual manner of fur hat forming machines.

The inverted cone C Fig. 2, is supported within the exhaust chamber D, by the revolving ring R, through which it passes. Said ring is revolved by means of cogs on its outer edge, onto which a small pinion G works and is driven by the band B, from the driving shaft. The ring R Fig. 2, rests upon the top of the exhaust chamber D; within said chamber D, and around the tip part of the cone C Fig. 2, we place concentrically therewith a metallic inverted cone shape shield K Fig. 2 whose diameter is greater than that of C, and which is formed in two parts. This inverted cone-shaped

metallic shield extends over the tip and about two thirds of the way up the side of the cone and surrounding the same. The shield K as stated is formed of two parts by being bisected vertically; those parts are then attached together at the apex in such manner as that the sides of each half shall pass or lap over those of the other, leaving two open spaces diverging from tip to base for the current of air to pass through and these sides can be pressed closer together or farther apart by hand as the work performed may require.

Below and at the side of the exhaust chamber D, Fig. 1, is operated an exhaust fan E, which exhausts the air from the said chamber and causes a strong current of air to rush into the cavity of the cone C Fig. 1.

The expanding frame E, f, is composed of a series of rods or ribs *a*, seen in Fig. 3, which are fastened at the lower end or apex of the cone to a ring of wire, and to which is fastened a center rod *b*, which is a guide to sleeve *c*, which slides up and down on said rod *b*. The ribs *a* at the upper end are kept in regular position by wire guards *d*, through which they pass, which guards are attached to sleeve *c*. These ribs have a hinge or joint in, or near the middle, and also where they are attached together at the apex of the cone here inverted, and to the upper end of the sleeve *c*, which act as joints. By making three joints in each rib *a*, it will be seen that when the sleeve *c*, is moved on rod *b*, up, or down, it will enlarge or diminish the cone shape of the frame E, f, suiting it to perform its functions of inserting the lining, and of lifting out the hat with care, safety, and facility.

In operating this machine and forming hats thereon, the necessary weight of fur is placed upon the feed apron O, of the picker and fed through the rollers to the picker H, Fig. 2, in an even and uniform manner; the fibers of fur are thrown by the picker over the cavity of the cone *c* Fig. 1, where the current of the exhaust arrests the fur and draws it within the cone and holds it firmly upon its inner surface.

To remove the hat after it is formed we use a lining which we first draw over the expanding frame E, F, Fig. 3, we then contract the frame and invert it within the formed hat, by expanding it like opening an umbrella, the lining is fitted smoothly within

the hat inclosing it between two linings after which the hat is removed with safety.

No device is employed to guide the fur upon the apron or between the picker and
5 cone.

We are aware that many machines have been made for forming fur hats, the most prominent of which are those patented by William Foshit, Henry A. Wells, Daniel
10 Barnum, A. B. Taylor, Ira Gill, and others, all forming the hat on the outer surface of a cone, or form, with some device to guide the fur after it leaves the picker, to the cone or a section thereof, except A. B. Taylor,
15 who regulates the deposit on the cone by adjusting the fur upon the feed apron before the picking operation.

What we claim as our invention and desire to secure by Letters Patent of the United
20 States is—

1. The forming of fur hats on the inner surface of an inverted perforated or wire cone suspended through a revolving ring into an exhaust chamber in the manner herein specified.

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2. The combination of a picker H, inverted perforated or wire cone C, shield K, and exhaust fan E, the whole combined and operating as described, for the purpose as set forth.

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3. The expanding wire frame constructed as described, for putting the lining within the formed hat for the purpose herein described.

LYMAN PLATT. [L. S.]
RUSSEL WILDMAN. [L. S.]

In presence of—

WM. P. COMSTOCK,
L. S. COMSTOCK.