J. HAWLOWETZ.

MACHINES FOR CURLING FEATHERS.

No. 182,578. Patented Sept. 26, 1876.

Fig: 1.

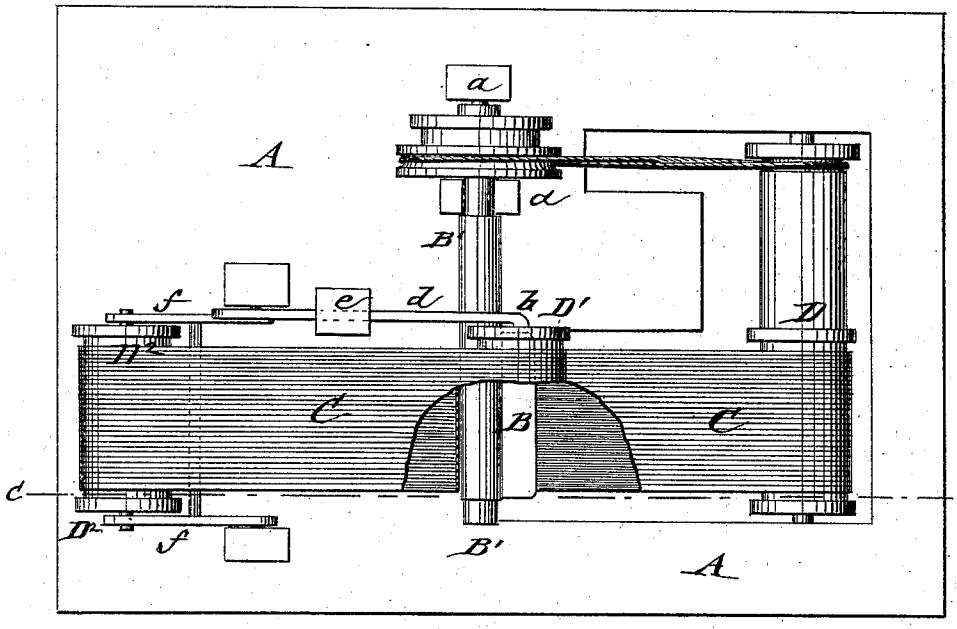
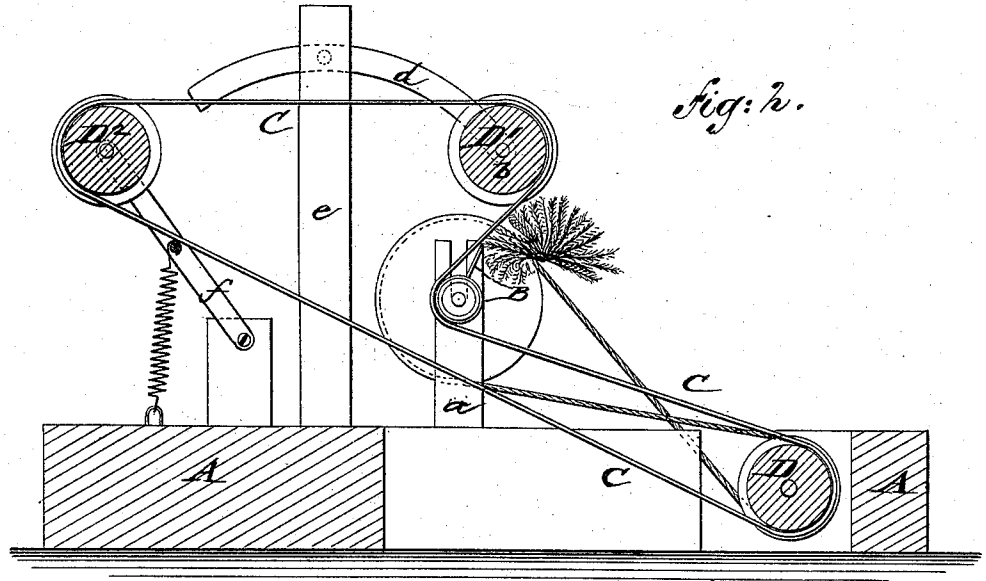


Fig: 2.



WITNESSES:

Chas. Neal

John Goethals

INVENTOR:

J. Hawlowetz

BY

Munn & Co

ATTORNEYS.

N. PETERS, PHOTO-LITHOGRAPHER, WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

JOHANN HAWLOWETZ, OF NEW YORK, N. Y.

IMPROVEMENT IN MACHINES FOR CURLING FEATHERS.

Specification forming part of Letters Patent No. **182,578**, dated September 26, 1876; application filed May 27, 1876.

To all whom it may concern:

Be it known that I, JOHANN HAWLOWETZ, of the city, county, and State of New York, have invented a new and Improved Machine for Curling Feathers, of which the following is a specification:

In the accompanying drawing, Figure 1 represents a top view, and Fig. 2 a vertical longitudinal section on line *c c*, Fig. 1, of my improved machine for curling ostrich and other feathers.

Similar letters of reference indicate corresponding parts.

My invention relates to an improved machine for curling ostrich and other feathers in a rapid, economical, and superior manner; and the invention consists of a revolving curler, in connection with a belt or apron running over a driving-roller, an adjustable stretching, and a swinging and spring-acted roller.

In the drawing, A represents the table or other support of my improved machine for curling ostrich and other feathers, which is driven by foot or other power, as desired. The machine consists, mainly, of a revolving curler, B, and an endless belt or apron, C, that presses the feathers against the curler. The curler B is made of a flat steel blade, secured to a shaft, B′, that turns in suitable bearings *a* of the table A. The apron C is stretched over the driving-roller D, that turns in bearings below the level of the table, at the front part of the same, and then passed over the shaft of the curler to a top roller, D^1, that turns on a shaft, *b*, of an arc-shaped arm, *d*, which is made adjustable by a clamp-screw in a post, *e*, of the table, to be set at greater or less distance from the curler, according to the size of the feather to be curled. The apron C passes from the adjustable top roller D^1 to a rear roller, D^2, that is supported on the shaft of a swinging and spring-acted frame, *f*, for the purpose of admitting the giving of the apron for the passage of the curler.

The ostrich or other feather is passed along the apron to the curler, and curled by the quick and repeated strokes or beats of the same, the curler pressing the ends of the feathers against the apron, which yields sufficiently to prevent any injury to the thin laminæ of the same.

The feathers are, by the action of the apron and curling-blade, quickly and uniform curled without the least injury, and at a considerable saving over the common method of curling by hand.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A machine for curling ostrich and other feathers, made of a revolving curling-blade, in connection with a revolving belt or apron that yields to the beats of the curler, substantially in the manner and for the purpose specified.

2. A machine for curling feathers, made of a revolving curler and an endless belt or apron stretched over a driving-roller, an adjustable top roller, and a swinging and spring-acted rear roller, substantially as specified.

3. The combination of the revolving curler and the yielding apron with an adjustable stretcher-roller above the curler to set the same to greater or less distance to curl different sizes of feathers, substantially as described.

JOHANN HAWLOWETZ.

Witnesses:

PAUL GOEPEL,

ADOLPH LUTHY.