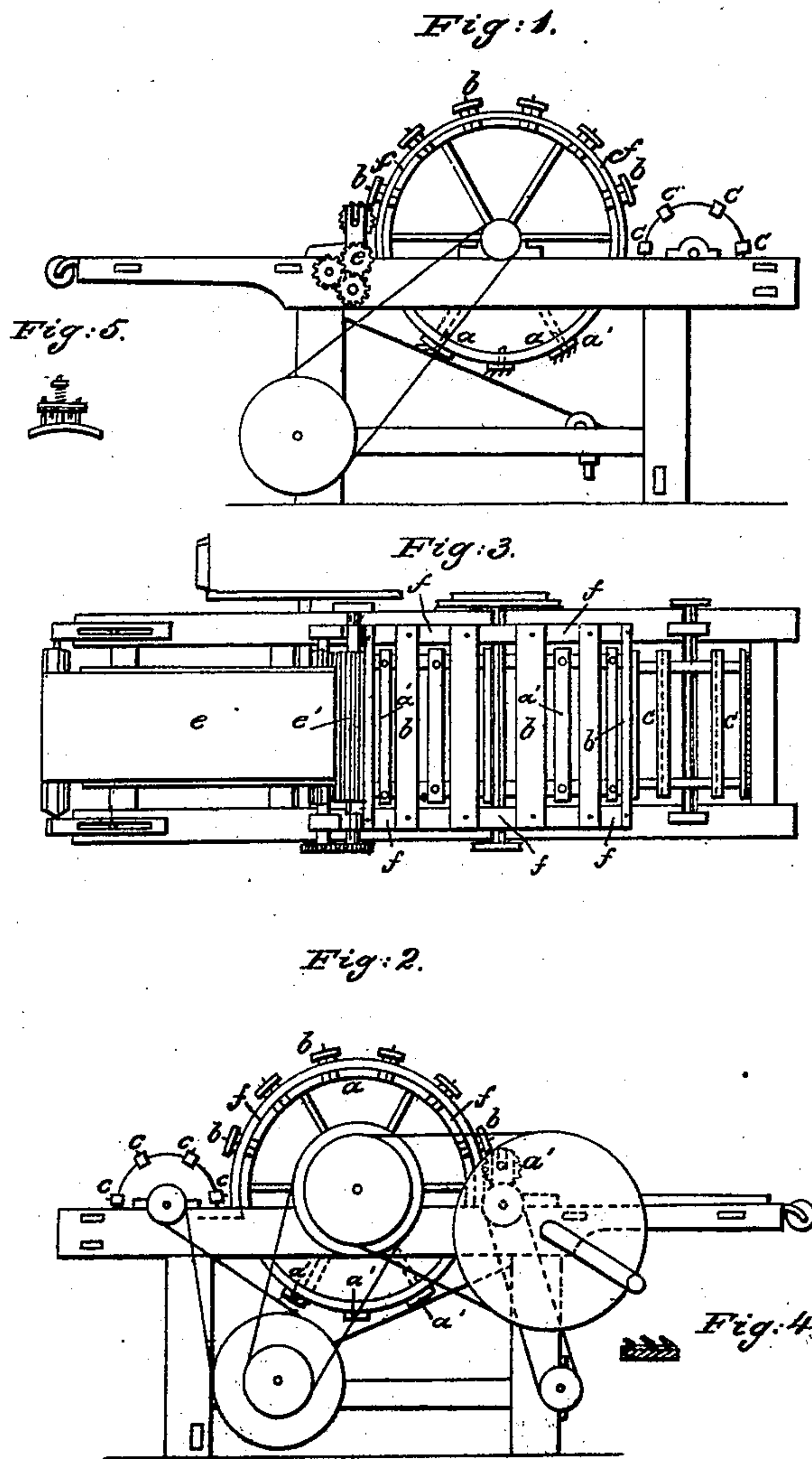


F. HARDING.
Hair Picker.

No. 1,736.

Patented Aug. 25, 1840.



UNITED STATES PATENT OFFICE.

FRANCIS HARDING, OF CLEVELAND, OHIO.

IMPROVEMENT IN MACHINES FOR CARDING OR PICKING CURLED HAIR.

Specification forming part of Letters Patent No. **1,736**, dated August 25, 1840.

To all whom it may concern:

Be it known that I, FRANCIS HARDING, of the city of Cleveland, in the county of Cuyahoga and State of Ohio, have invented a new and useful machine for carding or picking curled hair without destroying or injuring the curl; and I do hereby declare that the following is a full and exact description thereof.

In the accompanying drawings, Figures 1 and 2 are side views, and Fig. 3 a top view, of my machine; and in the respective figures where the same parts are shown they are designated by like letters of reference.

I employ a revolving cylinder, (marked *a a a* in the drawing.) Said cylinder may be two feet in diameter and about eighteen inches wide. Across this I place twelve or any other convenient number of slats about two inches wide and four inches apart, (marked *a' a' a'*.) These I cover with cards having two or three rows of strong wire teeth set in stout leather and bent or hooked forward, as shown in the section Fig. 4. On the frame of the machine, on each side of the cylinder, there are arch-pieces of iron *f f*, which sustain six stationary slats, (marked *b b*,) on the inner sides of which there are toothed cards of the same kind with those used on the cylinder, but with the hooked teeth standing in the reversed direction. The slats *b b* have some play on the arches, by means of spiral or other springs, as seen at Fig. 5. The cards, although of the same kind with those on the cylinder, are less and less coarse as they leave the feeding-apron and approach the brush, that next the feeding-apron being equally coarse with those on the cylinder. The feeding-apron *e* and the feeding-rollers *e'*, with their gearing, are made and

operate in the same manner with feeding-aprons in wool-picking and other machines. The curled hair laid upon this feeding-apron is carried to the revolving and stationary cards by means of the feeding-rollers. In its passage between these cards on its way to the brush-cylinder it will be effectually carded or picked. The brush-cylinder *c* has six rows of brushes, *c' c' c'*, upon its periphery. These brushes each consists of a single row of brushes set in a narrow strip of wood. These bristles take the hair off from the card-cylinder and throw it on the floor. The single row of bristles deliver the hair readily without danger of its becoming entangled upon them. The brush-cylinder must revolve inward against the card-cylinder, so as to remove the hair from it.

The revolving parts of the machine are represented as driven by pulleys and bands in the ordinary manner, or they may be driven by cog-gearing, all of which will be fully understood without further description.

Having thus fully described the manner of constructing my machine, and having also fully pointed out the operation thereof, what I claim therein as constituting my invention, and desire to secure by Letters Patent, is—

The combining of the revolving and stationary cards, arranged, constructed, and operating substantially in the manner set forth, and in combination therewith the revolving cylinder of brushes, also constructed as above described.

FRANCIS HARDING.

Witnesses:

THOS. P. JONES,
GEORGE WEST.