

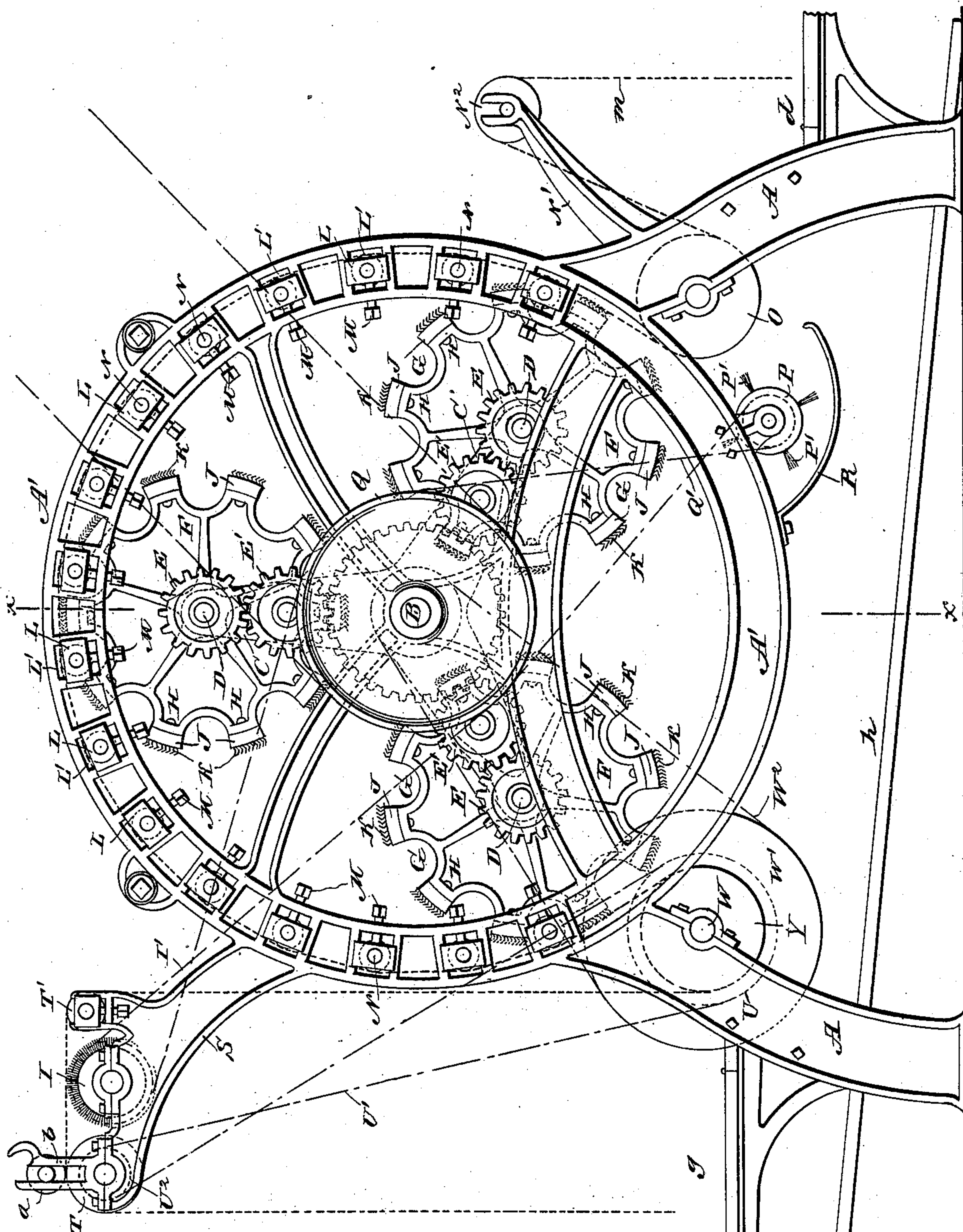
(No Model.)

2 Sheets—Sheet 1.

J. WOELFEL.
CLOTH GIGGING MACHINE.

No. 358,136.

Patented Feb. 22, 1887.



WITNESSES:

Wm. Beyer
C. Sedgwick

Fig. 1.

INVENTOR:

J. Woelfel

BY

Munn & Co

ATTORNEYS.

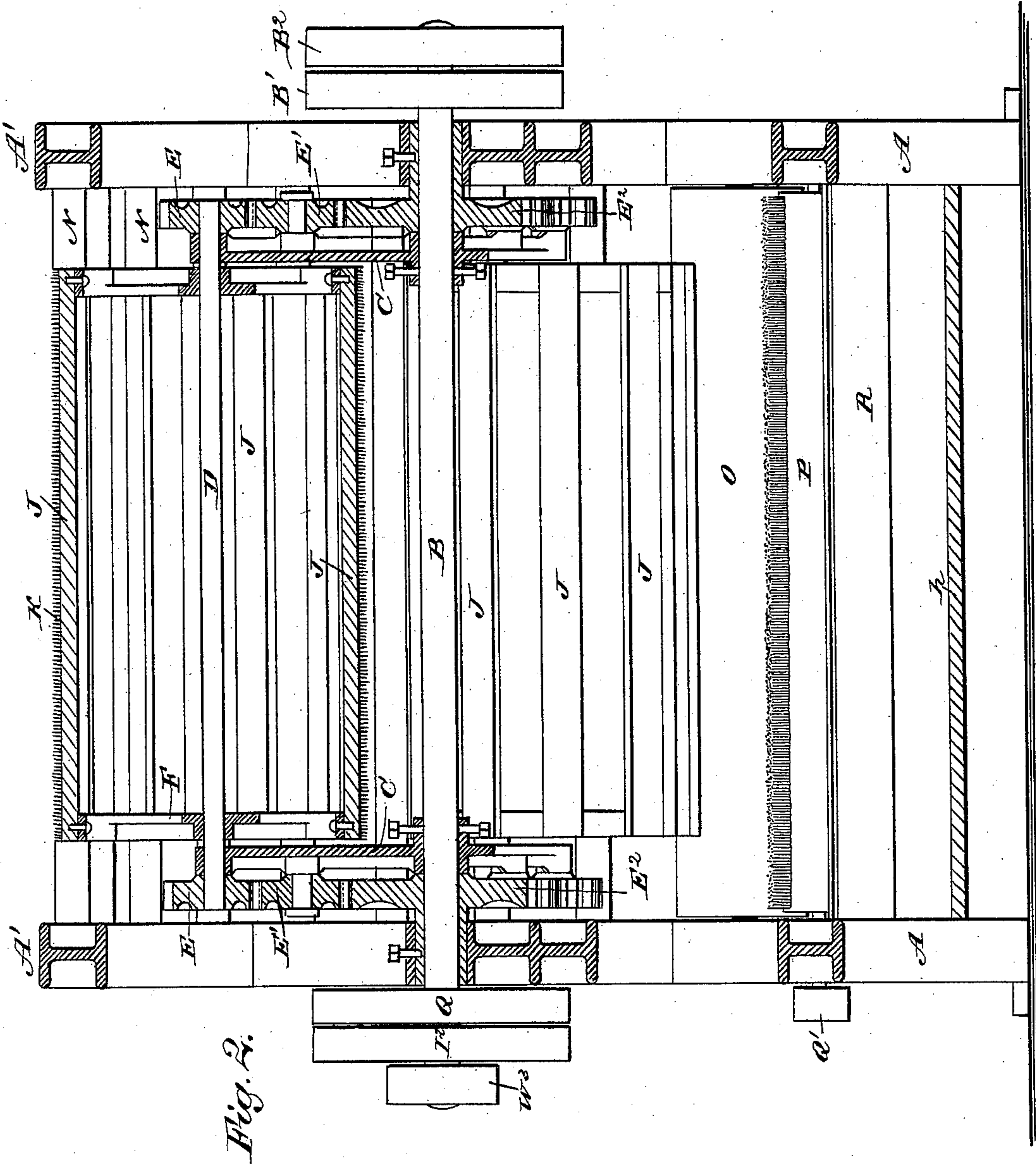
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CLOTH GIGGING MACHINE.

No. 358,136.

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WITNESSES:

Kurt Meyer
W. Sedgwick

INVENTOR:

J. Woelfel
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UNITED STATES PATENT OFFICE.

JOSEPH WOELFEL, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO
JOSEPH HANSON, OF SAME PLACE.

CLOTH-GIGGING MACHINE.

SPECIFICATION forming part of Letters Patent No. 358,136, dated February 22, 1887.

Application filed September 11, 1885. Serial No. 176,793. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH WOELFEL, of Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented a new and Improved Cloth-Gigging Machine, of which the following is a full, clear, and exact description.

The object of my invention is to provide a new and improved machine for producing a uniform nap on cotton or woolen fabrics.

The invention consists in the construction and combination of parts and details, as will be fully described and set forth hereinafter, and set forth in the claims.

Reference is to be had to the accompanying drawings, forming part of this specification, in which similar letters of reference indicate corresponding parts in both the figures.

Figure 1 is an end view of my improved gigging-machine. Fig. 2 is a longitudinal sectional view of the same on the line *xx*, Fig. 1.

The two end frames, A, each have a circular part, A', in the centers of which the shaft B is journaled, and on each end of said shaft a three-armed spider or frame, C, is rigidly mounted adjacent to the inner sides of the frames A. In the ends of the corresponding arms of the spiders the shafts D are journaled, on the ends of which the cog-wheels E are rigidly mounted, and engage with the cog-wheels E' on the arms of the spiders, these cog-wheels E' in turn engaging with cog-wheels E'', which are fixed in position by means of hollow hubs projecting laterally through and secured in frames A, and constituting the bearings of shaft B. The shaft B is provided with the belt-pulleys B' B''.

On each end of each shaft D a wheel, F, is mounted, provided with recesses or notches G in the rims, forming teeth H, to which slats or bars J are secured, and extend from one wheel F to the other, and on said bars or slats J the cards K are secured. This construction produces cylinders which in effect possess longitudinal depressions or grooves, into which the supports or rollers may enter, and affords card-clad projections for acting upon the cloth between the supports or rollers, as will presently appear.

In the upper two-thirds of the circular parts

A' of the frames A squared apertures L' are formed, and in these I arrange journal-boxes L, that slide radially, and are secured in any adjustment by screws M, passed through the inner sides of the parts A'. In the said boxes L rollers N are journaled, the same being thus arranged in a circle, and forming what may be termed a "cylinder," around or over which the cloth to be napped is carried while being acted on by the revolving cards, hereinafter described. In arms N' of the frames A a roller, N'', is journaled, and a roller, O, is journaled in the frames A.

On the bottom edges of the parts A' of the frames A a roller, P, is journaled, on the surface of which brushes P' are secured, the said brushes being revolved from the pulley Q on the shaft B by the belt Q'.

A pan or receiver, R, is secured to the frames A, and extends under the roller P.

In arms S of the parts A' the rollers T and T', and between them the cylindrical brush I, are journaled. The brush I is revolved by a crossed belt, I', from a pulley, I'', on the shaft B. A pulley, W', on a shaft, W, is revolved by a belt, W'', from the pulley W'' on the shaft B, and a belt, U', passed over the pulley U on the shaft W, is passed over a pulley, U'', on the roller T. The roller *a*, guided between upwardly-projecting prongs *b* on the arms S, rests upon the roller T.

d and *g* are platforms for receiving the cloth before and after it is napped.

h is a platform for preventing the cloth from coming in contact with the floor when passing through the machine in the form of an endless belt, also in case it falls back off from platforms *d g*.

The operation is as follows: The fabric, *m*, to be napped is passed over the roller N'', around the roller O, over the several rollers N, around the drum or roller Y on the shaft W, over the rollers T' T and the brush I, and is then deposited on the platform *g*. The fabric is stretched or drawn taut in passing over the rollers N. The teeth H can pass in between the rollers N, and the cards K, having hook-shaped teeth, act on those parts of the cloth between the rollers N, thus catching and drawing out the fibers, which, when thus raised and

extended, form the fuzzy surface on the cloth termed the "nap." When the shaft B revolves, the shafts D are revolved by the cog-wheels E², E', and E. The cloth is moved forward by the feed-rollers T and Y, and the fuzz is brushed off by the brush I. The brushes P' clean the cards as they revolve. The wheels F revolve with their shafts and around the main shaft B at the same time.

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

1. In a gigging machine, the combination, with a frame provided with longitudinal supports or rollers over which the cloth passes, arranged at suitable distances apart in cylindrical form, of cylinders provided with depressions or longitudinal grooves in which said supports or rollers may lie, and card-clad projections for acting upon the cloth between the rollers or supports, and means, substantially as described, for supporting and rotating the cylinders, substantially as described.

2. The combination, with a shaft, of frames or spiders on the same, wheels on the spiders, means for rotating said wheels, card bars or slats uniting said wheels, rollers placed in the form of a cylinder surrounding the shaft, spiders, wheels, and card-bars, and a revolving brush for cleaning the napped cloth, substantially as herein shown and described.

3. The combination, with the frames A, having the circular parts A', provided with apertures L', of the boxes L on said apertures, the rollers N, journaled in said boxes, the screws M, the shaft B, the spiders C, the shafts D, the cog-wheels E E' E², the wheels F, having notches G, forming teeth H, and the card-bars J, secured on the teeth, substantially as herein shown and described.

JOSEPH WOELFEL.

Witnesses:

JOHN LANE,
S. W. EVANS, Sr.