

(No Model.)

L. DEJONGE, Jr.

MACHINE FOR WINDING PAPER.

No. 281,034.

Patented July 10, 1883.

Fig. 3.

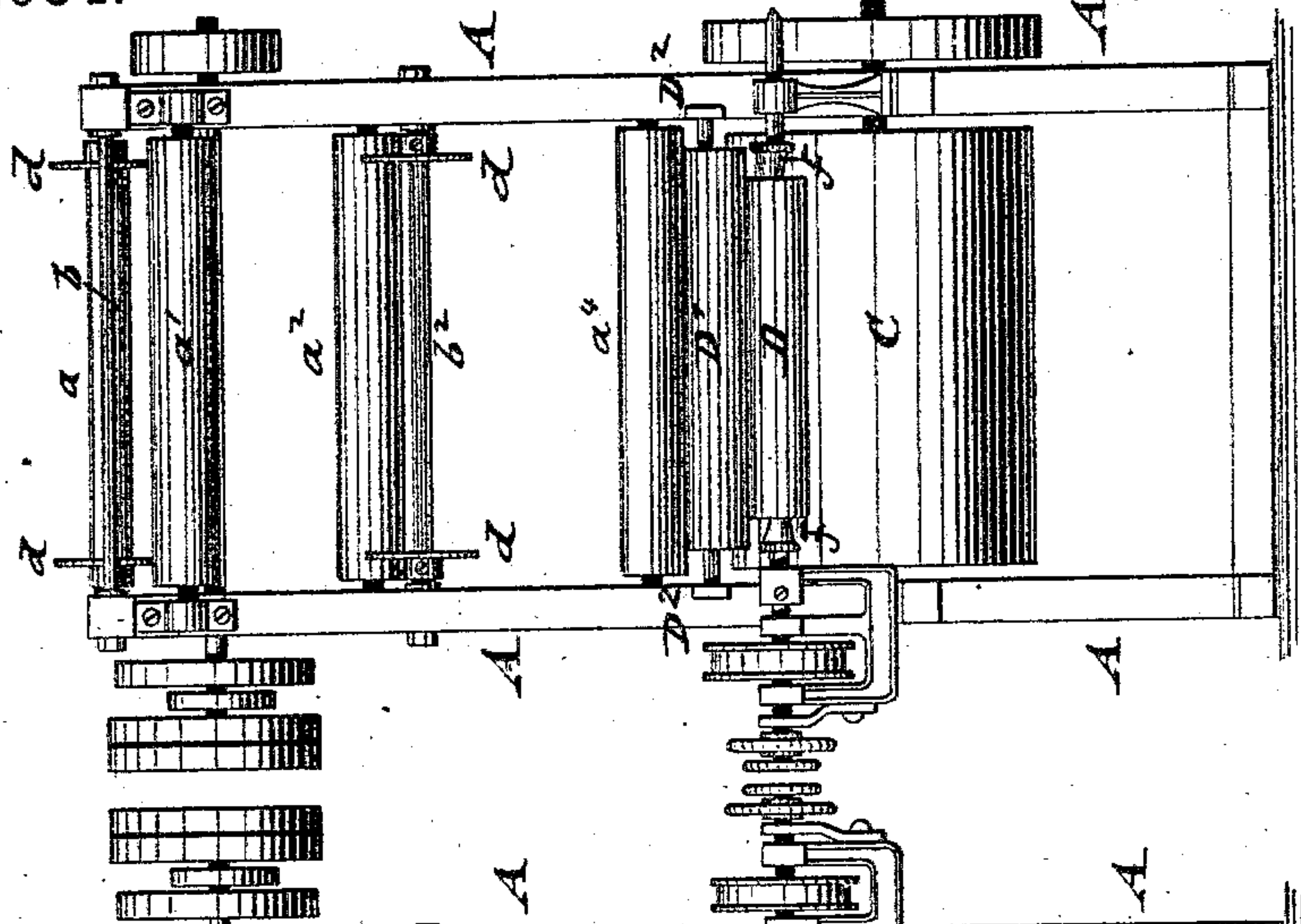


Fig. 2.

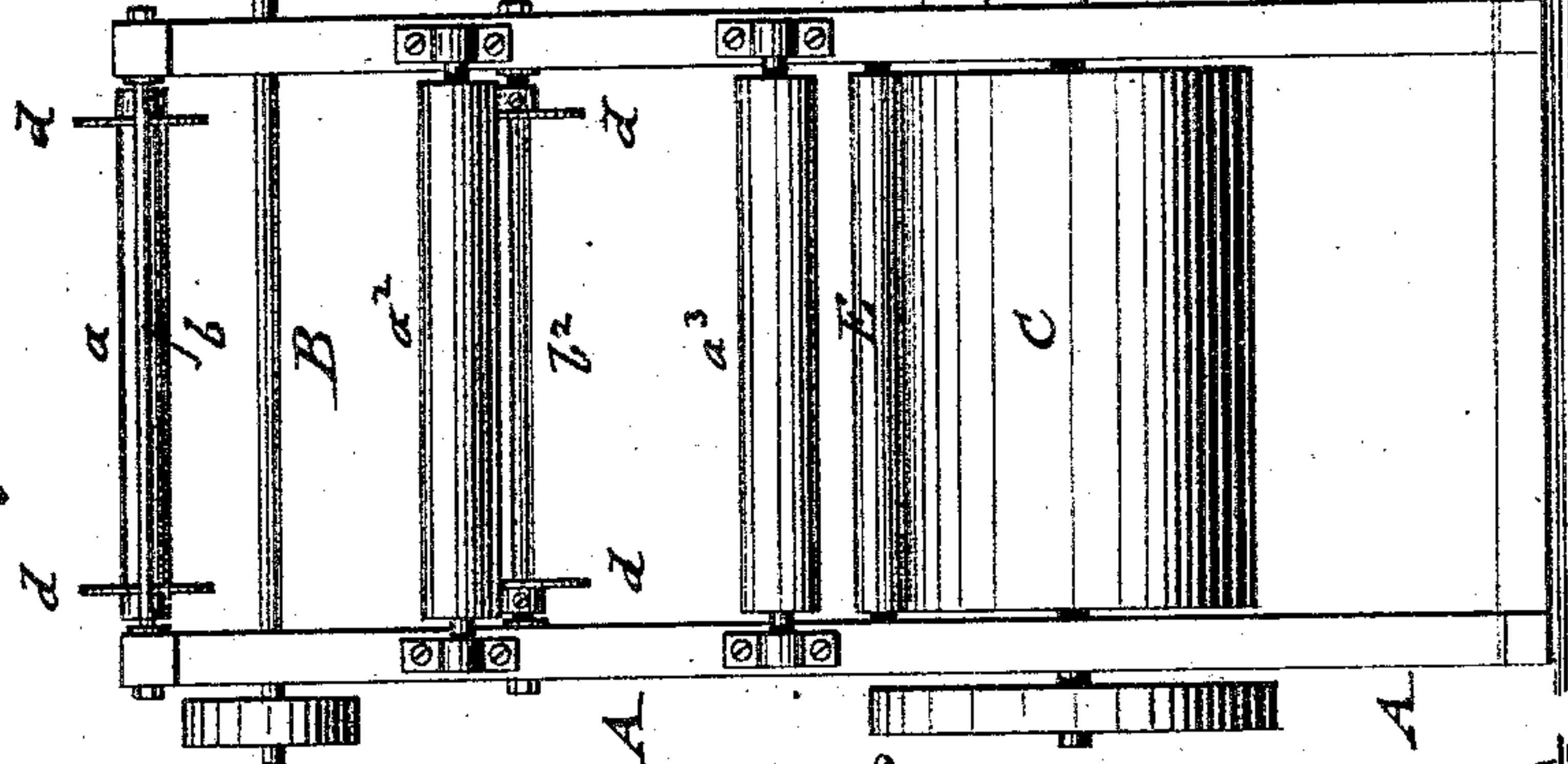
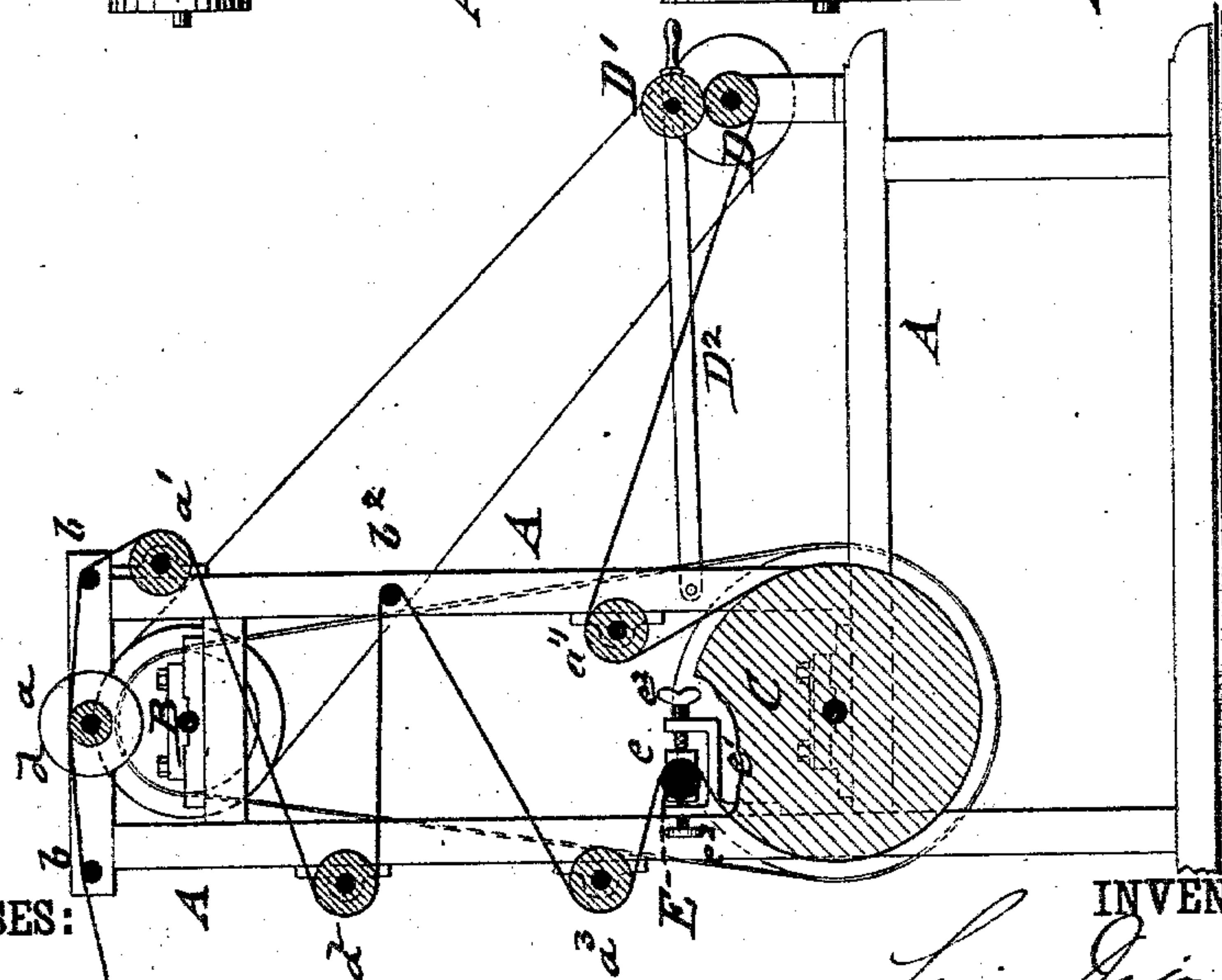


Fig. 1.



WITNESSES:

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LOUIS DEJONGE, JR., OF STAPLETON, NEW YORK.

## MACHINE FOR WINDING PAPER.

SPECIFICATION forming part of Letters Patent No. 281,034, dated July 10, 1883.

Application filed April 2, 1883. (No model.)

*To all whom it may concern:*

Be it known that I, LOUIS DEJONGE, Jr., of Stapleton, in the county of Richmond and State of New York, have invented certain new and useful Improvements in Machines for Winding Paper, of which the following is a specification.

This invention has reference to an improved machine for winding paper into rolls in an even and uniform manner as the same is delivered from the drying-rooms; and the invention consists of the combination, with a number of guide-rollers and tension-rods, of a large revolving drum which receives direct motion from the driving-shaft, and which moves the paper forward, in connection with a gravity-roller that presses the paper against the drum. The paper passes from the feed-drum over an intermediate guide-roller to the winding-up roller, to which also direct motion is imparted from the driving-shaft, and on which the paper is tightly wound by means of a pressure-roller.

In the accompanying drawings, Figure 1 represents a vertical longitudinal section of my improved machine for winding paper. Figs. 2 and 3 are respectively a rear and a front elevation of the same.

Similar letters of reference indicate corresponding parts.

A in the drawings represents the supporting-frame of my improved machine for winding up paper. At the upper end of frame A is supported in suitable bearings the driving-shaft B, from which direct motion is imparted by a belt-and-pulley transmission to a drum, C, and by a second transmission to a winding-up roller, D, the shafts of which are supported in bearings at the lower part of frame A. The paper is moved forward by the drum and passed over a number of guide-rollers,  $a$   $a'$   $a^2$   $a^3$ , and smooth intermediate tension-rods,  $b$   $b'$   $b^2$ , that are supported at the upper part of frame A. The upper guide-roller,  $a$ , as well as the tension-rod  $b^2$ , is provided with laterally-adjustable disks  $d$   $d'$ , which are set to the width of the paper and serve to guide the same properly over the guide-rollers. From the guide-roller  $a^3$  the paper is conducted over a gravity-roller, E, of solid iron or steel, that presses the paper on the circumference of the drum C.

The gravity-roller E turns in adjustable bearings  $e$  of brackets  $e'$  of frame A, and is set more or less close to the drum C, according to the thickness of the paper. The paper then passes around the drum C and over a guide-roller,  $a^4$ , at the opposite side of the drum, and from the roller  $a^4$  to the winding-up roller D, which is secured detachably to its shaft by means of laterally-adjustable conical screw-nuts  $f$   $f$ . On removing the shaft of the winding-up roller D from its bearings, the roller and the paper wound up thereon can be readily removed from the shaft by unscrewing the conical nuts  $f$   $f$ . The paper is wound uniformly on the winding-up roller D by a pressure-roller, D', that turns in bearings of levers D<sup>2</sup>, which are pivoted to the uprights of frame A, as shown in Fig. 1, the pressure-roller serving to secure the tight winding up of the paper.

The essential advantage of my improved paper-winding machine consists in the fact that the drum C receives motion independently from the winding-up roller D, so as to produce jointly with the gravity-roller E the forward drawing of the paper, whereby the winding-up roller is relieved from any strain. As the winding-up roller receives its motion directly from the driving-shaft, the winding up of the paper takes place independently from the pulling of the paper, so that a more even winding, without any folds or unevenness in the paper, is the result.

I am aware that paper-winders having a friction-belt and a yielding tightener have been used; but such a device I do not claim.

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

1. As an improvement in paper-winding machines, the combination, with suitable guide-rollers and tension-rods, of a drawing-drum and gravity-roller, which holds the paper in contact therewith, and of a winding-up roller, the drawing-drum and winding-up roller receiving rotary motion independently of each other from the driving-shaft, substantially as and for the purpose set forth.

2. The combination of suitable guide-rollers and tension-rods, a drawing-drum, a gravity-roller turning in adjustable bearings and pressing the paper against the drum, a winding-up

roller, a pressure-roller bearing on the winding-up roller, and belt-and-pulley transmissions, whereby the drawing-drum and winding-up roller receive rotary motion independently of each other from the same driving-shaft, substantially as specified.

In testimony that I claim the foregoing as

my invention I have signed my name in presence of two subscribing witnesses.

LOUIS DEJONGE, JR.

Witnesses:

PAUL GOEPEL,  
SIDNEY MANN.