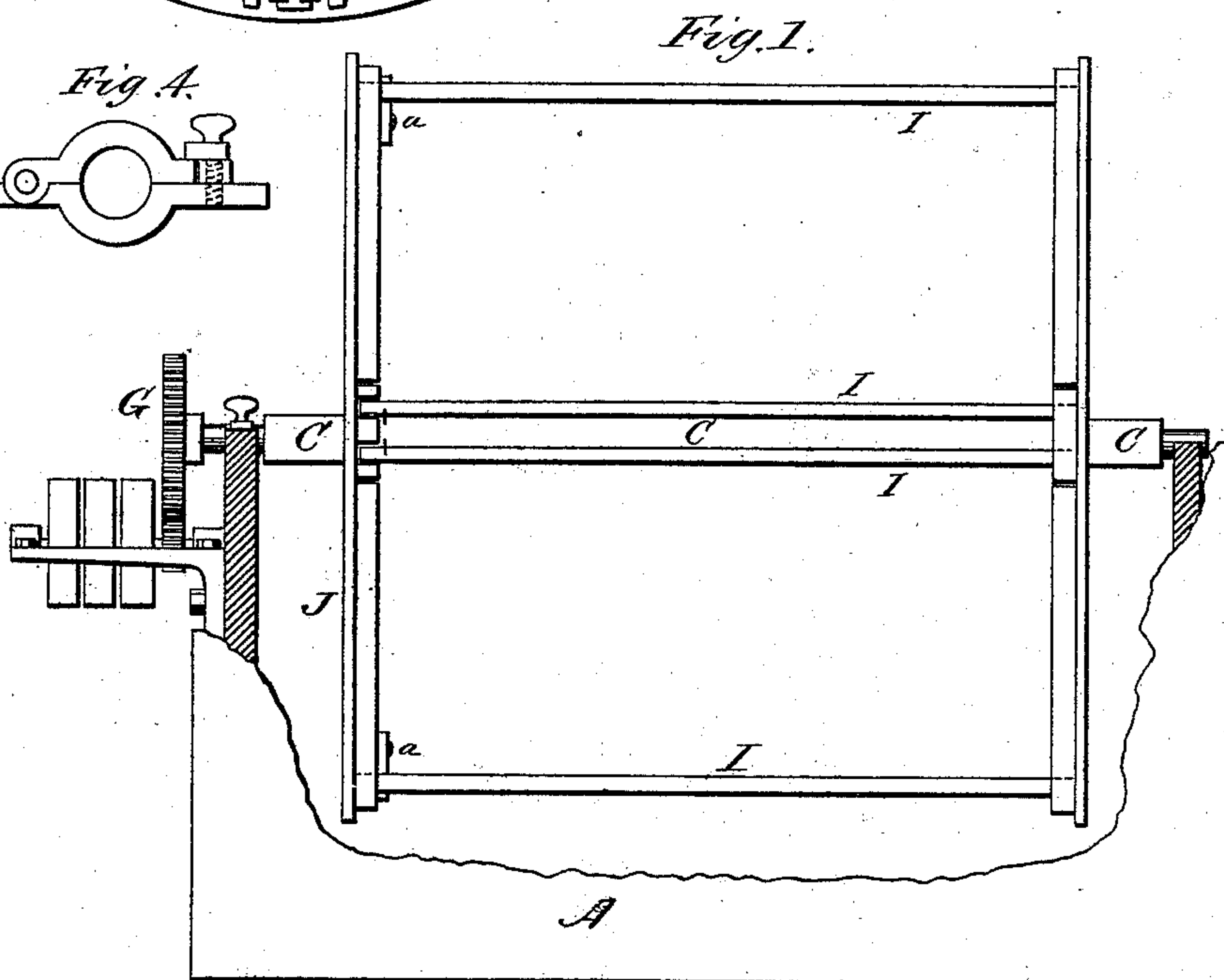
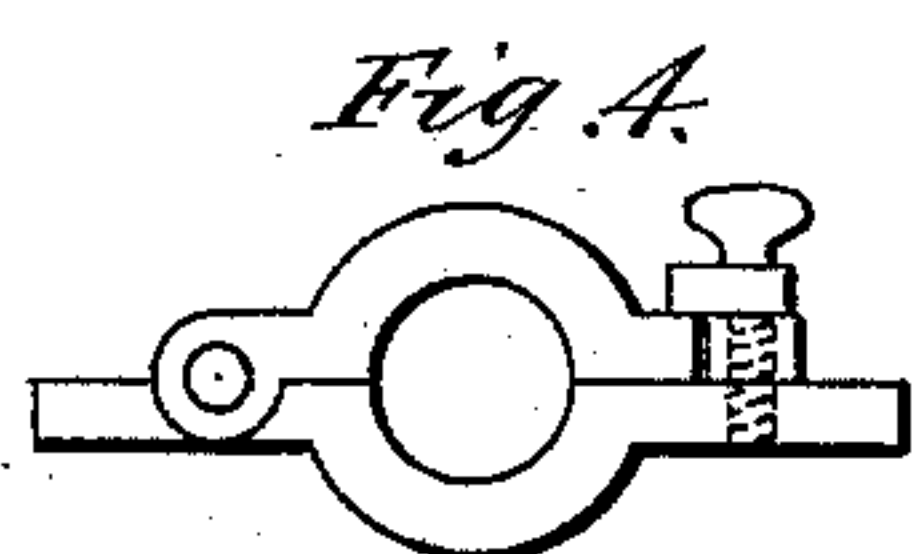
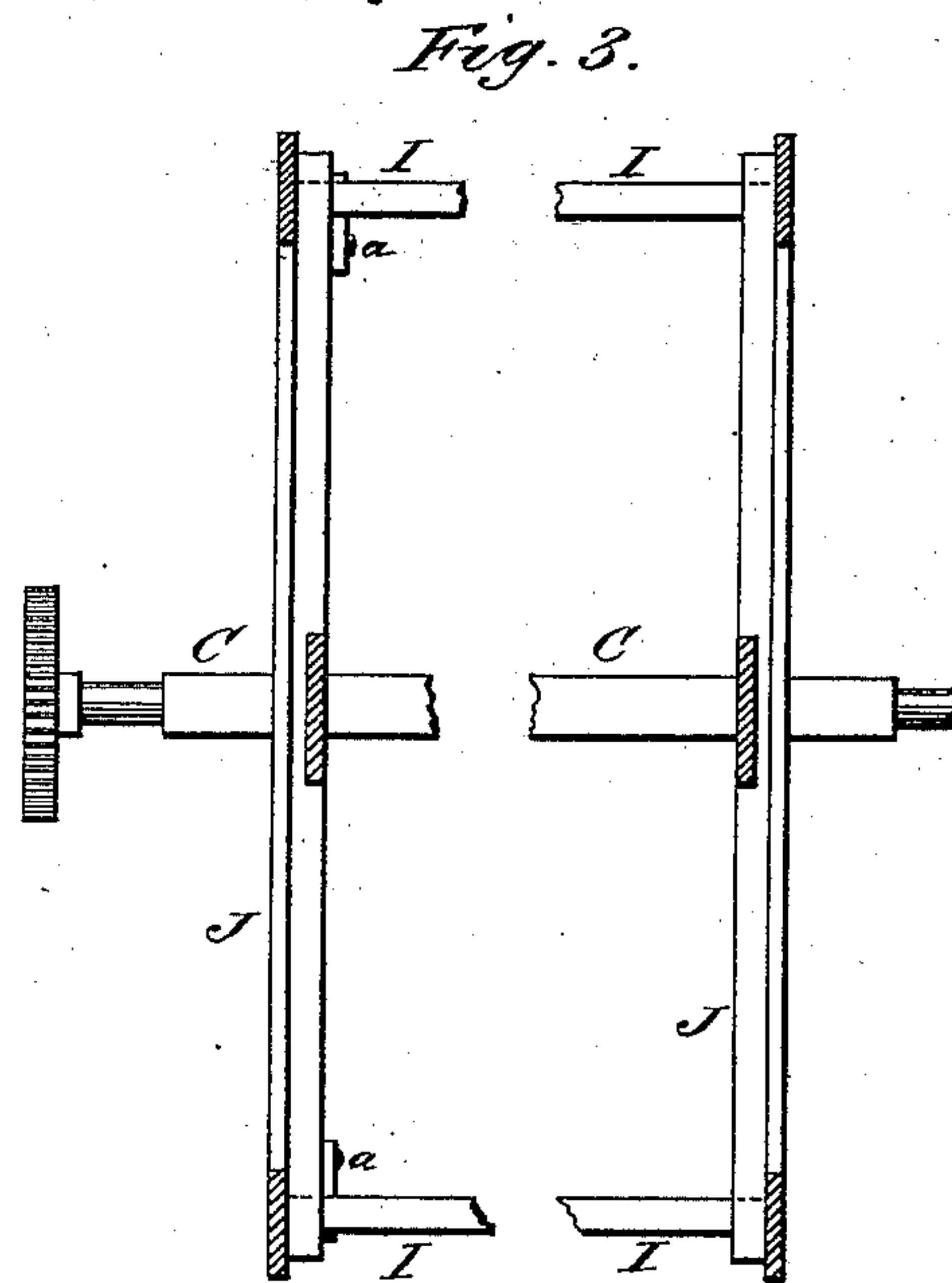
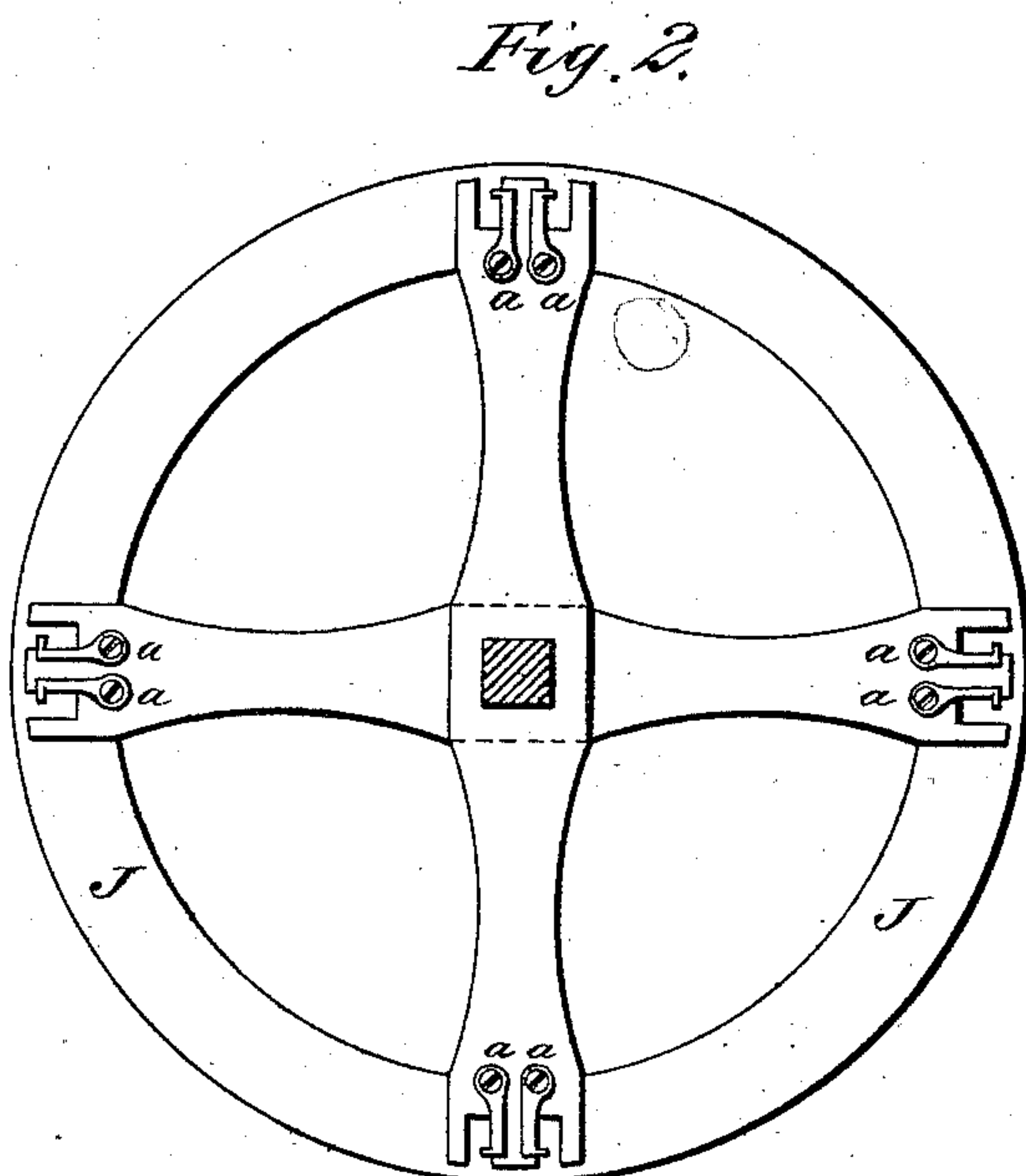


(No Model.)

R. L. RUSHLOW.
MACHINE FOR HANDLING YARN IN THE DYE VAT.

No. 279,884.

Patented June 19, 1883.



Witnesses:
Chas. F. Goddard
C. C. Vanderpool

Inventor:
Romeo L. Rushlow

UNITED STATES PATENT OFFICE.

ROMEO L. RUSHLOW, OF WEST MITCHELL, IOWA.

MACHINE FOR HANDLING YARN IN THE DYE-VAT.

SPECIFICATION forming part of Letters Patent No. 279,884, dated June 19, 1883.

Application filed November 25, 1882. (No model.)

To all whom it may concern:

Be it known that I, ROMEO LOUIS RUSHLOW, a citizen of the United States, residing at West Mitchell, in the county of Mitchell and State of Iowa, have invented a new and useful Machine for Handling Yarns while in the Process of Dyeing, of which the following is a specification.

The mechanism consists, essentially, of a reel revolving in the dye-vat upon journal-boxes attached to the sides of the vat, and designed to be driven either by hand or power, and which is illustrated in the accompanying drawings, in which—

Figure 1 is a vertical section of the reel and dye-vat with the front side of the dye-vat broken away to show the lower side of the reel and its bearings. Fig. 2 is a plan view of one end of the reel. Fig. 3 is a vertical section of the ends of the reel, and Fig. 4 is a view of the hinged box at the end of the reel where the power is applied.

Similar letters refer to similar parts in all the views.

In Fig. 1, A represents the vat or receptacle for the dye or mordant with its front side broken away to show the position of the reel B, which is attached to the shaft C. The shaft C extends outside of the vat at one side, and is driven by the gearing and pulleys, as represented in Fig. 1, the fast and loose pulleys permitting it to be driven either way by shifting-belts extending from any convenient power.

IIII, Figs. 1 and 3, represent the bars of the reel, upon which the yarn to be colored is secured by passing two of these bars through

each skein of yarn. These bars enter mortises in one of the reel-heads and drop into slots in the other, and are held in place by the spring-hooks *a a a*, &c. These bars are placed at such a distance apart on reel as to allow of about three inches of slack in the skeins, and consequently as the reel revolves the yarn continually changes position on the bars, which results in an even exposure of the yarn to both the dye or mordant and the air, and gives a uniform color. The number of these pairs of bars on a reel is determined by the size of the reel and the length of the skeins to be dyed. The flanges on the heads of the reel serve to strengthen the heads and allow of the use of more bars, if required by the length of the skeins to be dyed, by putting in more mortises, slots, and spring-hooks. This arrangement allows the bars to be readily removed and replaced in putting on and taking off the yarn.

I am aware that prior to my invention reels have been used in dyeing yarns and fabrics. I therefore do not claim such use, broadly; but

What I do claim as my invention, and desire to secure by Letters Patent, is—

In a reel used for dyeing yarns, the combination of the removable and adjustable bars IIII with the spring-hooks *a a a*, reel-heads and flanges J J, shaft C, and vat A, together with a suitable device for driving the reel, substantially as shown and described.

ROMEO LOUIS RUSHLOW.

Witnesses:

C. F. GODDARD,
G. T. FRAZEE.