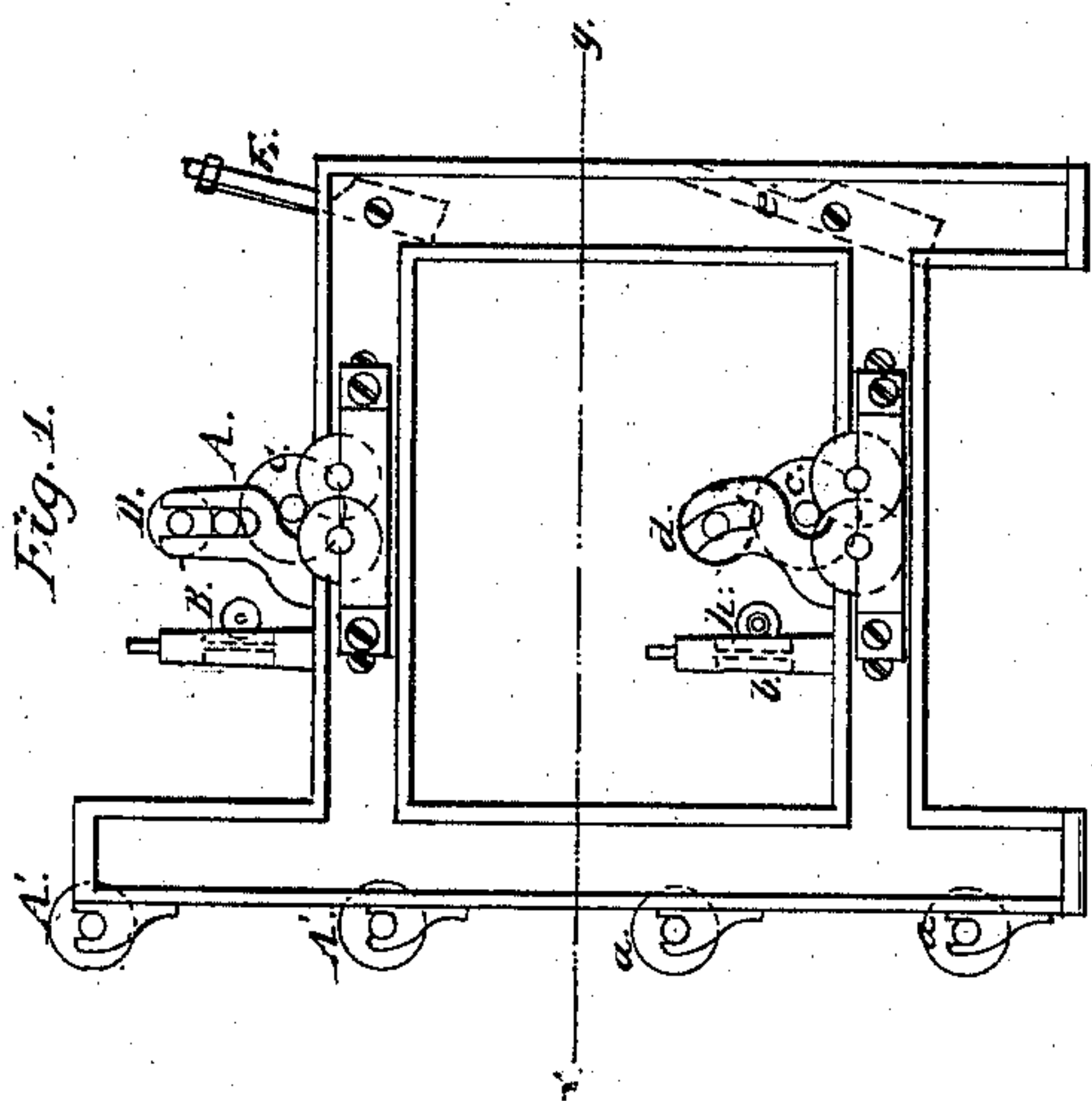
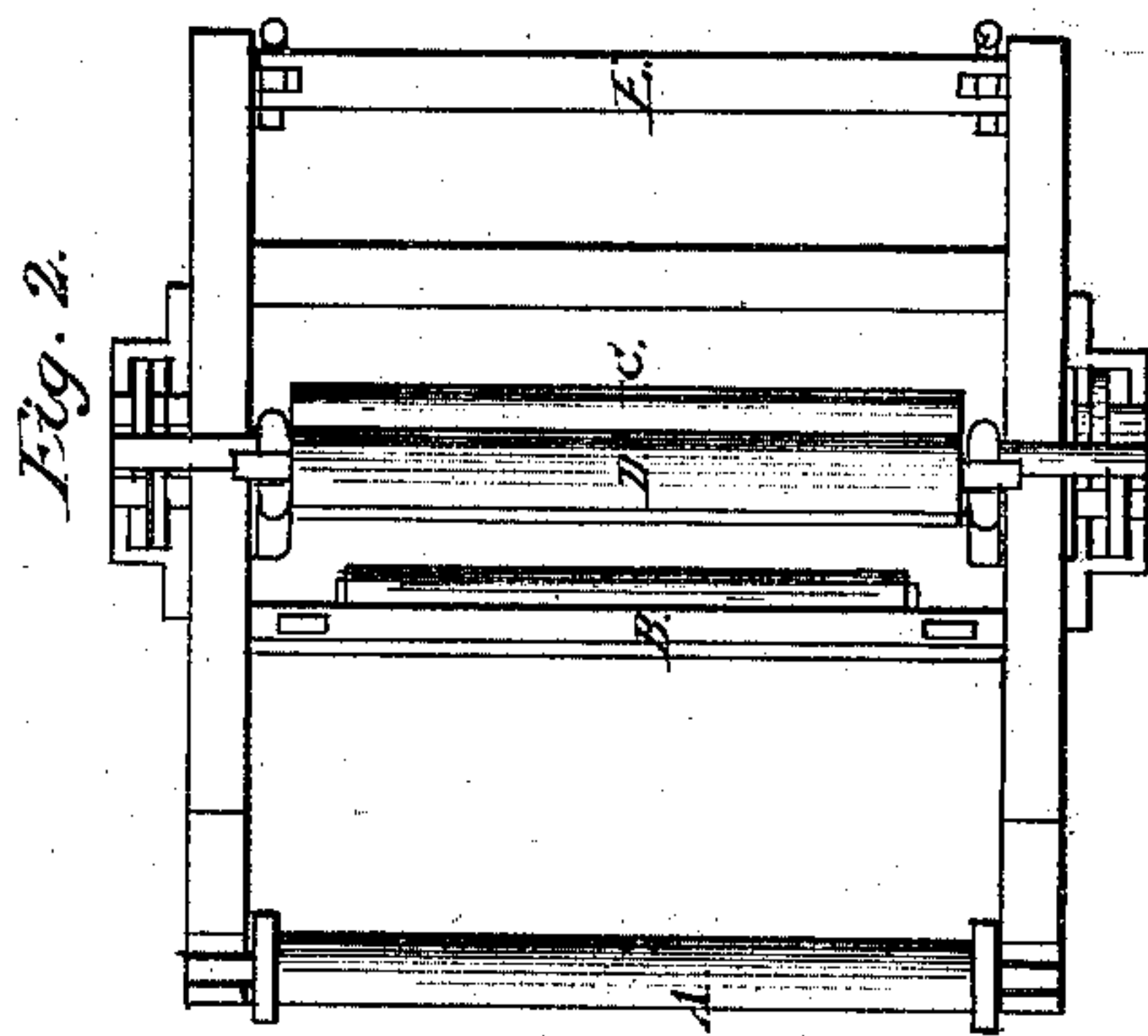
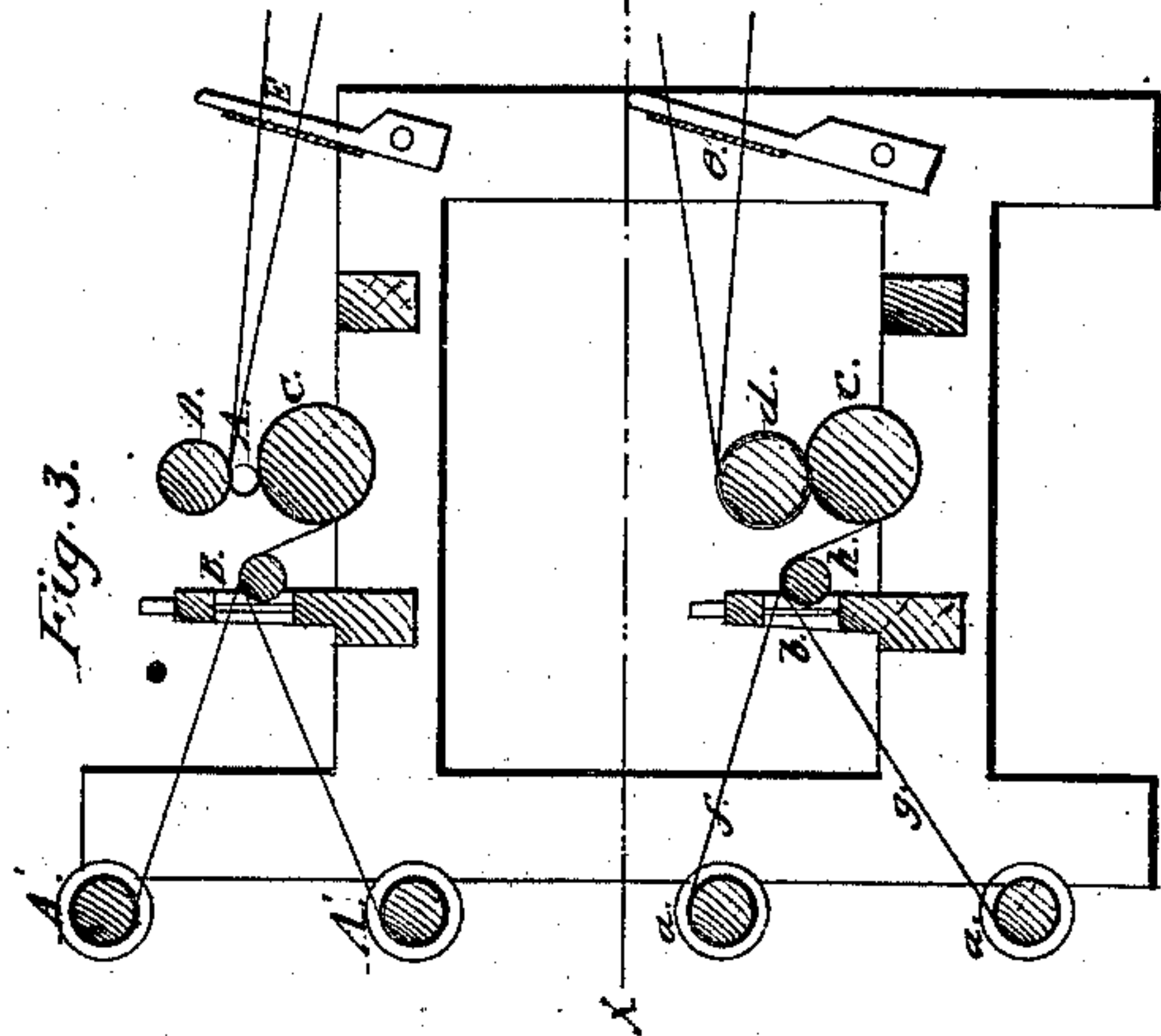


A. B. Corey.
Warp Dressing Mach.

N^o 36,833.

Patented Nov 4, 1862.



Witnesses:
R. H. Ledy.
Arthur Neill

Inventor.
Alfred B. Corey

UNITED STATES PATENT OFFICE.

ALFRED B. COREY, OF SPRAGUE, CONNECTICUT.

IMPROVEMENT IN MACHINERY FOR DRESSING AND SIZING WARPS.

Specification forming part of Letters Patent No. 36,833, dated November 4, 1862.

To all whom it may concern:

Be it known that I, ALFRED B. COREY, a citizen of the United States, and a resident of Sprague, in the county of New London and State of Connecticut, have made a new and useful invention having reference to Machinery for Dressing or Sizing Warps; and I do hereby declare the same to be fully described in the following specification, and represented in the accompanying drawings, of which—

Figure 1 is a side elevation, Fig. 2 a top view, and Fig. 3 a longitudinal section, of a machine containing my said invention, the nature of which consists in the arrangement and combination of what is termed an "even-er," with certain other machinery, hereinafter described, for dressing warps.

The drawings not only represent my invention, but certain warp-dressing machinery as ordinarily made and used prior to the origin of my invention, this latter mechanism being shown in order that the character and form of operation of my said invention or addition may be clearly defined and understood. This last-mentioned machinery is exhibited below the horizontal line, (marked *x y* in Figs. 1 and 2,) while what is shown above such line and in Fig. 2 represents my invention.

The ordinary warp-dressing machine, to which I have made an addition, consists substantially of two or any other suitable number of beams or rollers, *a a*, for carrying the thread to be dressed, a guiding-reed, *B*, a size or plunge roller, *c*, a top roller, *d*, and a guide-plate, *e*. The plunge-roller usually wallows in a trough containing the size. The warp-yarns *f g* extend from these beams through the reed *b*, thence over a guide-roller, *h*, thence under the size or plunge-roller *c* and through the sizing, thence upward between the roller *c* and the top roller, *d*, thence over the latter and to and through the guide-plate *e*. It is very desirable, as well as customary, to place the axis of the said top roller somewhat in rear of a vertical plane passing through the axis of the plunger-roller, for this will cause the top roller to form with the plunger-roller a trough for holding the size on or near the upper part of the plunger-roller, and particularly just in advance of the line of contact or "bite" of the two rollers. Although such is highly advantageous, it is attended with an

objection, as the sizing material or liquid size is liable to leak through the bite and be carried up unevenly on the warp-thread.

The purpose of my addition to the said warp-dressing machine is to remove from the warp-threads the surplus of sizing so generated upon them, and this I accomplish by means of a third roller, which I term an "even-er," and arrange on and above the top roller when its axis is disposed a little in rear of the vertical plane of the axis of the plunge-roller. This evener is shown at *A* in Figs. 1, 2, and 3. It is to turn freely with and enables me to employ a top roller, *D*, very much smaller in diameter than the top roller, *d*, of the common warp-dresser, and in consequence thereof I obtain an increased draft on the yarns and on the sized parts of them, where they are much stronger than where they have no sizing applied to them. The said top roller, *D*, is shown as resting on a plunge-roller, *C*, in the rear of which there is a reed, *B*, and two warp-beams, *A' A'*. In front of the rollers *A D C* there is a guide-plate, *E*, the whole being arranged as shown in the drawings.

Some of the advantages of my invention may be thus stated: It evens the sizing on the warps and presses back the surplus sizing taken up by them. It enables a top roller of very small diameter, comparatively speaking, to be used, and consequently an increase of draft on the yarns to be attained thereby, and where they may be wet and better able to bear the draft.

The advantages of a strong draft on the yarns is that the cloth made with them will be woven better and will be longer than with a less draft.

It has been found by experience that the useful effect of the evener is such that the saving resulting from it in the working of the yarn and converting it into cloth is enough to nearly if not entirely balance the whole cost of the dressing of the warps.

I claim—

The arrangement and combination of the evener with other warp-dressing machinery, substantially as described.

ALFRED B. COREY.

Witnesses:

R. H. EDDY,
ARTHUR NEILL.