

C. CORRON.

MACHINE FOR DRESSING SILK, &c., IN HANKS OR SKEINS.

No. 189,195.

Patented April 3, 1877.

Fig. 2.

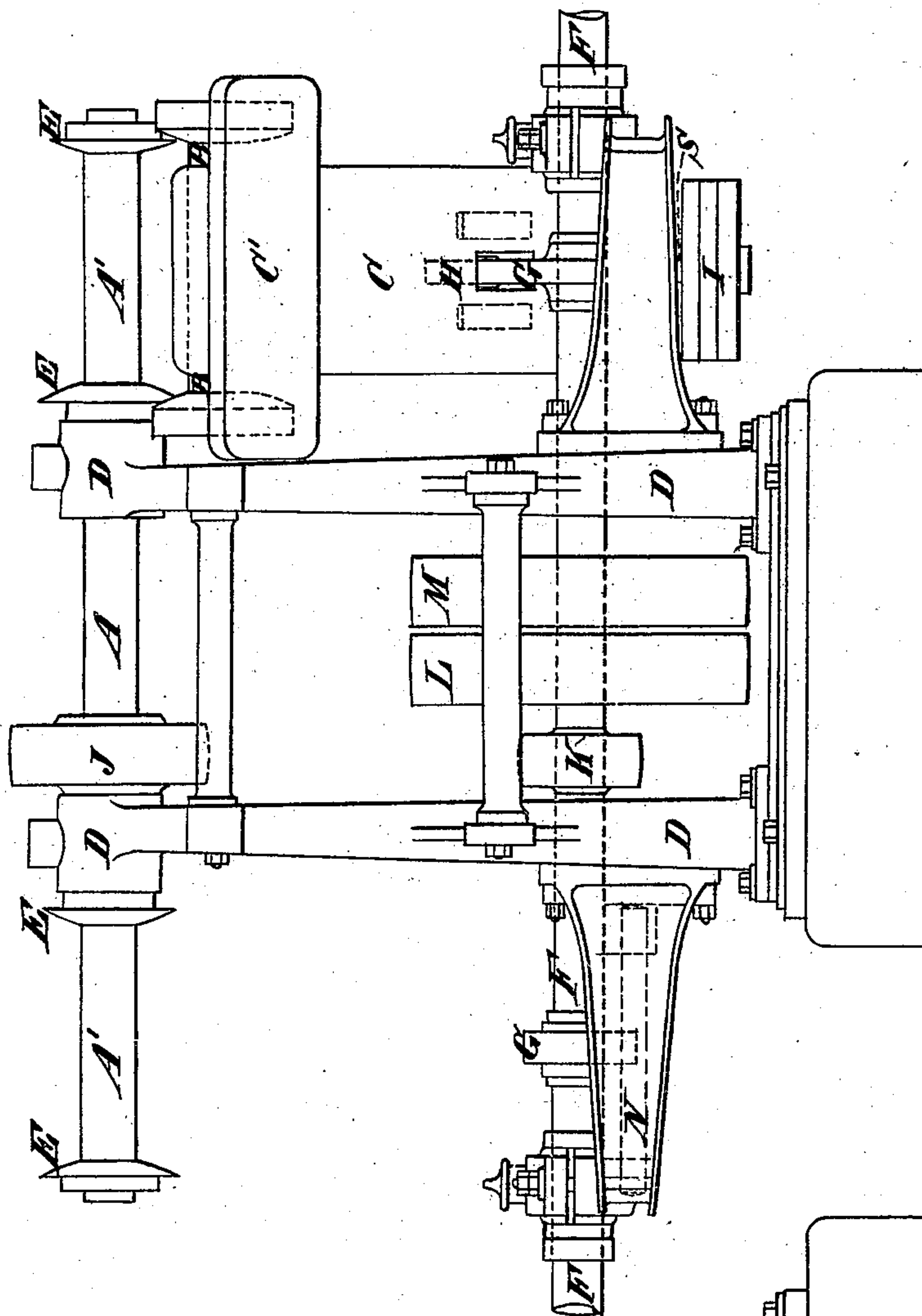
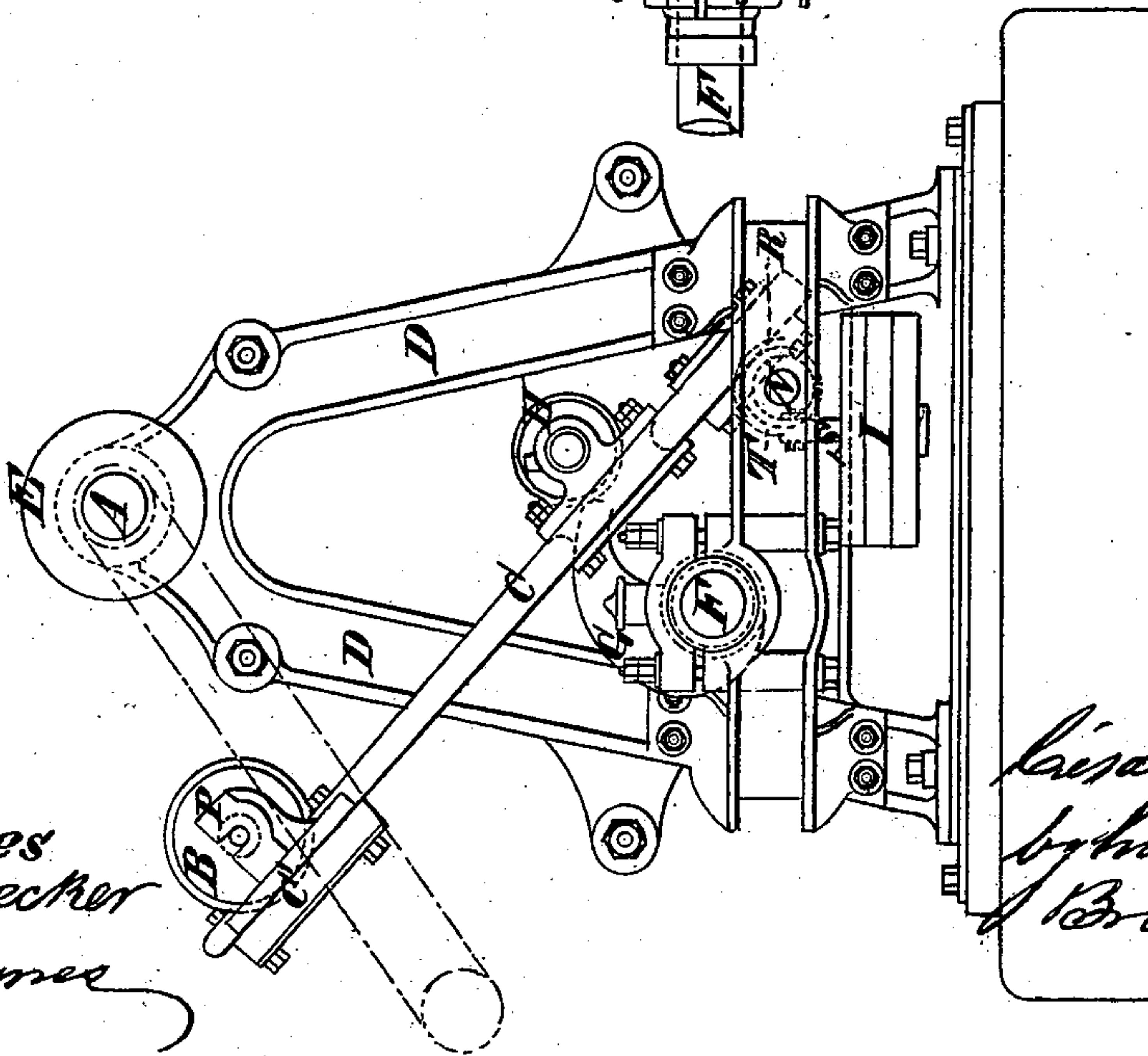


Fig. 1.



Witnesses
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CÉSAR CORRON, OF ST. ETIENNE, FRANCE.

IMPROVEMENT IN MACHINES FOR DRESSING SILK, &c., IN HANKS OR SKEINS.

Specification forming part of Letters Patent No. **189,195**, dated April 3, 1877; application filed February 17, 1877.

To all whom it may concern:

Be it known that I, CÉSAR CORRON, of St. Etienne, in the Department of Loire, in the Republic of France, have invented an Improvement in Machines for Dressing Silk and other Fibrous Materials in Hanks or Skeins by a Shaking Process; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawing, forming part of this specification.

The invention has for its object to replace manual labor in operations called "handling" and "dressing," required before dyeing the same; and after dyeing in the operations called "uncrossing" or "stringing the threads," and "drying," or the removal of water from the materials by artificial heat.

Figure 1 is a side view, and Fig. 2 a front elevation of the machine.

F is the main shaft of the machine, to which rotary motion is imparted from any motor, L and M being, respectively, fast and loose pulleys on said shaft F, which runs in suitable bearings in the frame D of the machine.

Running in suitable bearings in the frame D, and parallel with the main shaft F, is a double spindle, A, having any suitable form adapted to the material to be treated. Said spindle A receives rotary motion from the main shaft F by a belt running on the pulley J on said spindle, and the pulley K on said main shaft.

On the opposite extremities of the spindle A are placed flanged rollers or pegs A', Fig. 2, the flanges E preventing the slipping off of the thread during the operation of the machine.

Upon the main shaft F are fixed the cams G, which alternately raise and let fall oscillating beaters, said beaters being formed of the oscillating beam C, and the cross-piece C' attached to said oscillating beam C. Each beater oscillates upon a pivot, N. Each of said beaters carries at its end, remote from said pivot N, a removable flanged roller or peg, B, said roller or peg being pivoted in hooked bearings P, Fig. 1. The oscillation of the beaters C C' causes the flanged rollers or pegs B to oscillate in arcs of circles, the centers of which are the respective pivots N.

Said cams G act upon friction-rollers H, at-

tached to the upper sides of the beams C' of the beaters C C', said beams being slotted to allow said cams to work upon said friction-rollers.

Upon the pivots N of the beaters C C' are fastened sectors R, Fig. 1, to which are attached, and over which run, flexible straps T, Fig. 1. To said flexible straps or belts T are attached supports S, for weights I, which, suspended on said supports, add to the intensity of the action of said beaters, and the attached flanged rollers or pegs B in their fall, as hereinafter described. This arrangement permits the augmentation or diminution of effect in the action of said beaters, by increase or diminution of the weight suspended from said beaters by the straps T.

The operation of the machine is as follows:

Either one of the beaters being in the elevated position shown in Fig. 1, it is secured in that position by a wedge or other support, so that the cam G, which previously elevated it, ceases to act upon its friction-roller H. When so secured the beater ceases to oscillate, although the machine continues in motion, and the opposite beater may continue its action.

The hank or skein to be shaken is then taken in one hand by the operator and looped over the flanged roller or peg A', corresponding to the beater, stopped in its motion and secured as aforesaid, while the other hand takes out the flanged roller or peg B from its bearings on said beater below said roller or peg A', passes it through the hank or skein, and replaces said roller or peg B in its bearings P on said beater.

The wedge or support which holds the beater elevated is next removed. The beater and its attached flanged roller or peg then falls till arrested by the hank or skein, bringing its friction-roller H into position to be acted upon by its proper cam G, which causes it to oscillate, and, with a jerking motion, to alternately straighten out the hank or skein and relax it, thus shaking the thread of which the hank or skein is composed, every part of which is subjected to such shaking by the constant rotation of the spindle A and its attached flanged rollers or pegs A'.

Such repeated beating and shaking, together

with the movement of the hank or skein, caused by the rotation of the spindle A, speedily produces parallelism, straightening and softening of the thread, and frees the hank or skein from impurities.

The intensity of the strokes of the beaters requires to be varied according to the nature of the material treated. This is done by adding weight to or taking it away from the total of the weights I.

The rotation of the spindle A and the flanged rollers or pegs A' is slow, and although continuous in the present form of the machine may be replaced by intermittent or alternate rotary motion, produced by any of the well-known devices for the production of such movements.

The general organization and arrangement of the machine may also be varied. The flanged rollers or pegs A' and B may occupy different positions relatively to each other. They may be placed in horizontal, vertical, or oblique planes. The movement of the flanged rollers or pegs B may be produced by cams, levers, eccentrics, or any other devices suited to the purpose.

I claim—

1. The combination, with the flanged roller or rotating peg A', of the oscillating beater C C' and the flanged roller or peg B, attached to and oscillating with said beater, substantially as and for the purpose specified.

2. The combination of the shaft F, the cam G, the oscillating beater C C', the removable flanged roller or peg B, the rotating flanged roller or peg A', and the spindle A receiving rotating motion from the main shaft F, substantially as and for the purpose set forth.

3. The combination, with the oscillating beater C C', of the sector R, attached to the pivot of said beater, the flexible strap T, attached to and passing over said sector, and the weight or weights I suspended from said strap, substantially as and for the purpose described.

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Witnesses:

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