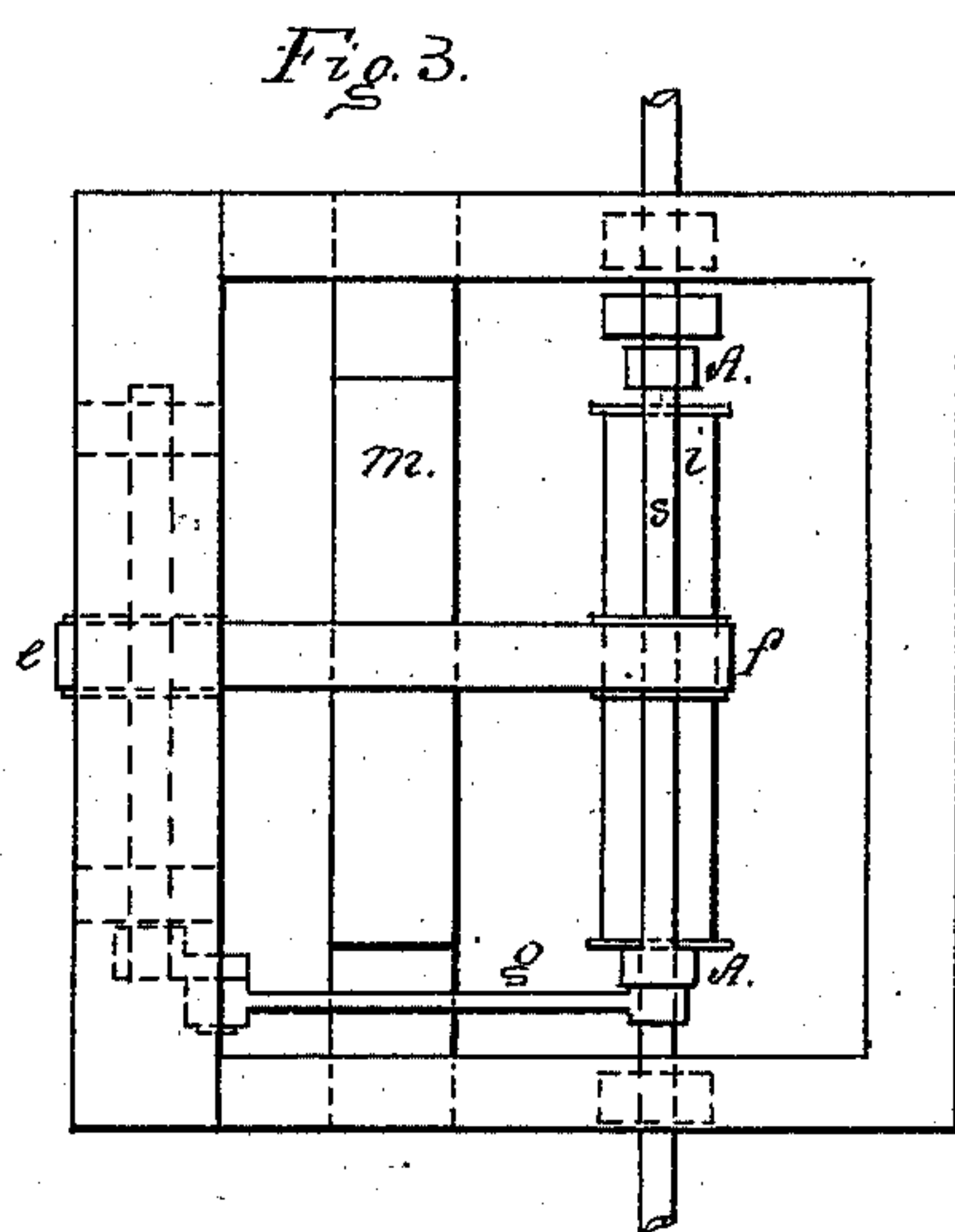
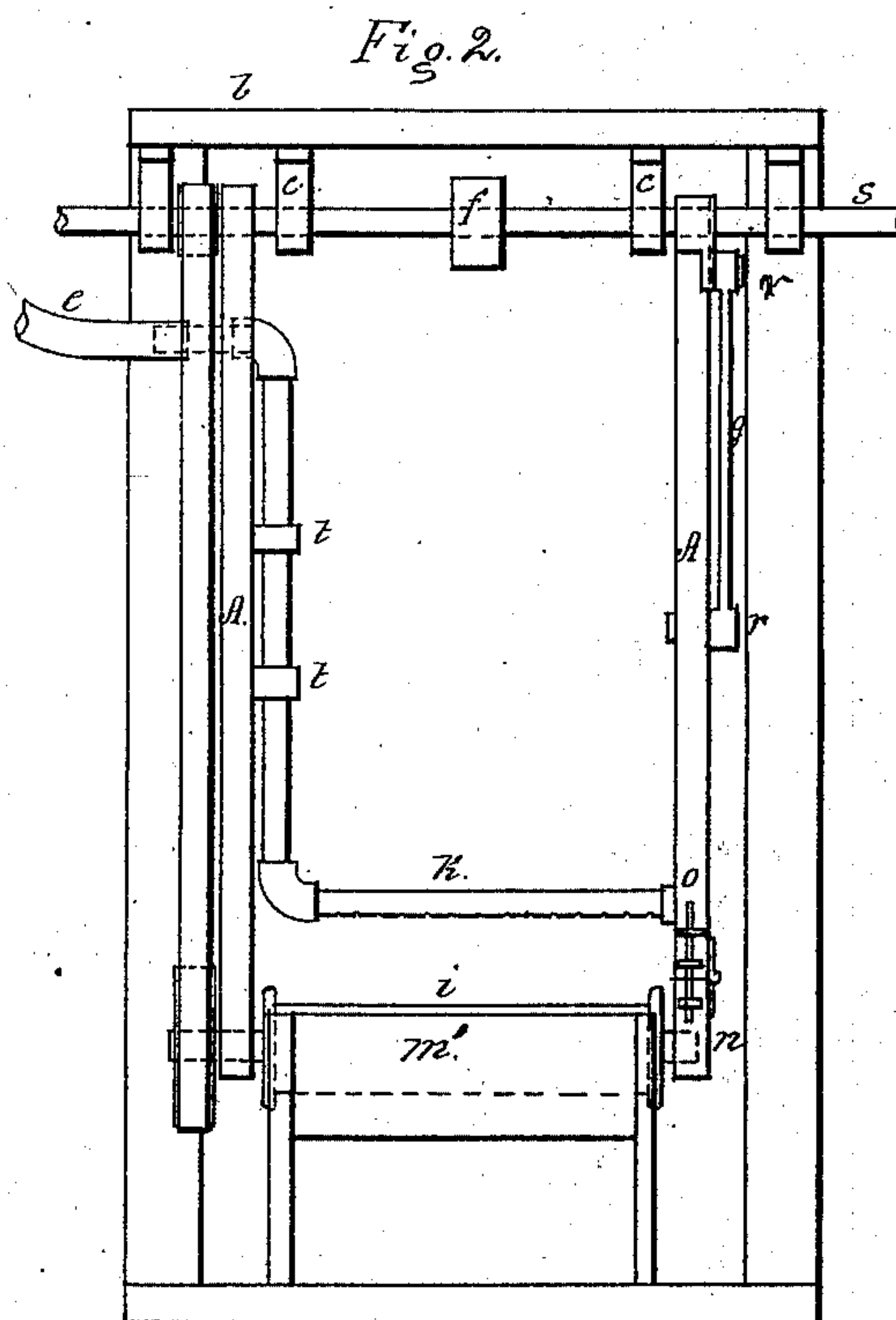
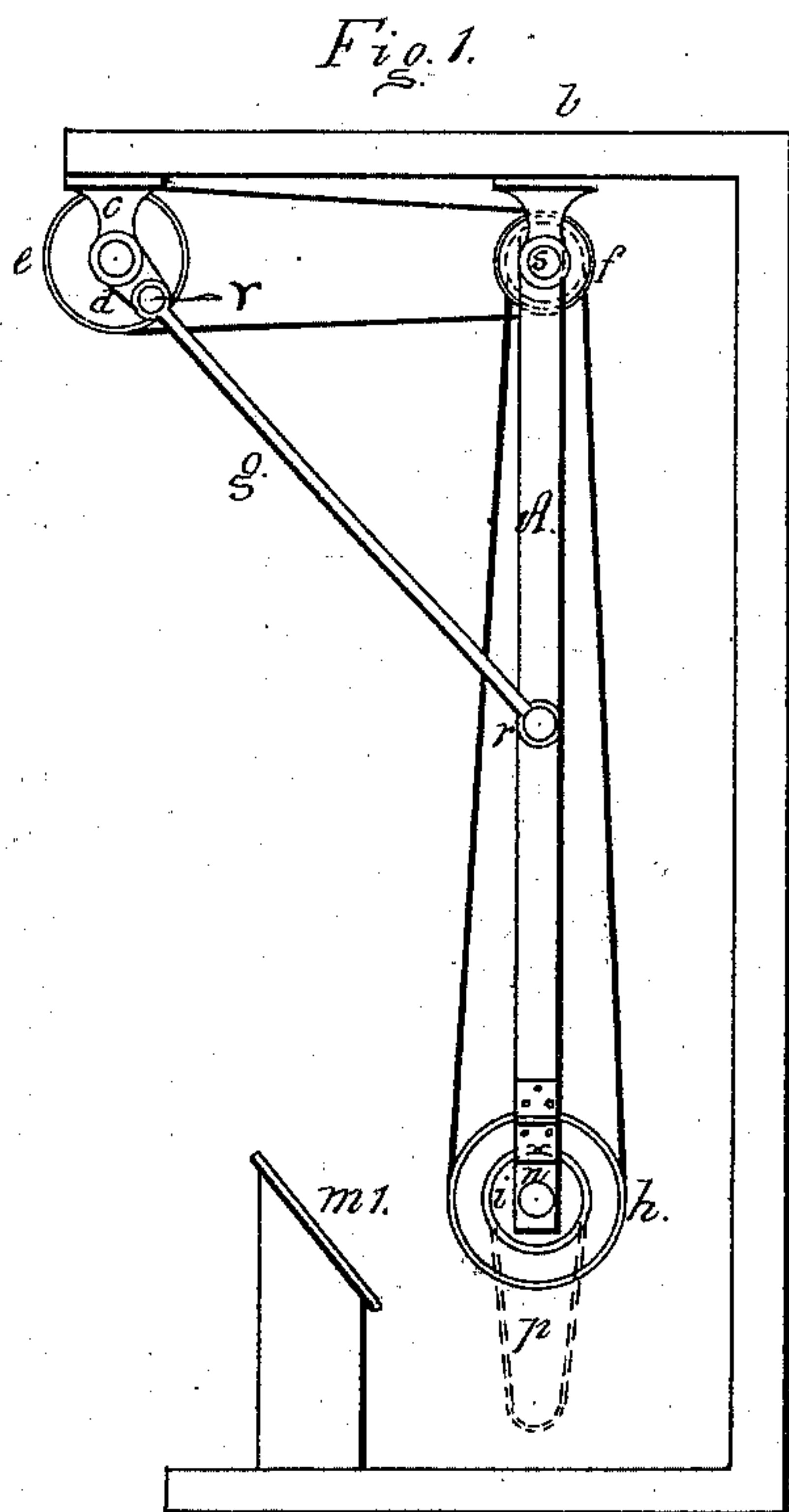


J. E. BOLTON.
Machine for Beating and Washing Silk, &c.
No. 223,430. Patented Jan. 13, 1880.



Witnesses
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John Inglis

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UNITED STATES PATENT OFFICE.

JOHN E. BOLTON, OF PATERSON, NEW JERSEY.

MACHINE FOR BEATING AND WASHING SILK, &c.

SPECIFICATION forming part of Letters Patent No. 223,430, dated January 13, 1880.

Application filed September 23, 1879.

To all whom it may concern:

Be it known that I, JOHN E. BOLTON, of the city of Paterson, county of Passaic, and State of New Jersey, have invented a new and useful Improvement in Machines for Beating and Washing Silk and other kinds of thread in the skein to remove the dirt and other impurities therefrom, of which the following is a specification.

The object of my invention is to provide a more simple and reliable mechanism for beating and washing silk and other thread in the hank to remove therefrom the dirt and useless fibers which are in the hanks of thread and need to be removed.

My invention consists in the arranging of a roller in a swinging frame-work, on which roller are to be placed the hanks of thread to be manipulated, the roller being journaled in bearings suitably arranged near the bottom of the swinging frame and swinging therewith, the lower end of the swinging frame being strengthened by iron straps, which are bolted to the wooden frame, one end of the roller also being so arranged in its connection with the frame as to be easily removed from the bearing, so as to allow the hanks of thread which are to be manipulated to be put on, and also to be taken off the roller after they have undergone the cleansing process, the removable end of the said roller being kept in position by means of a bolt while in operation, the swinging frame being journaled at the top on a revolving shaft, the revolving shaft being journaled in suitable bearings in hangers, which are bolted or otherwise fastened to the ceiling, there also being arranged on the revolving shaft on which the swinging frame is journaled pulleys, one of which drives a counter-shaft by means of a belt, on the end of which counter-shaft there is arranged a crank-arm, which is provided with a stud, on which stud works a connecting-rod which connects with the swinging frame by a stud corresponding to the one on the crank-arm. The connecting-rod gives motion to the swinging frame. At suitable distances from the swinging roller there is arranged a stationary slab of stone having smooth edges, against which the hanks of thread are to be swung by the swinging motion of the roller on which the hanks are arranged.

The resisting slab may be of iron or stone,

stone being preferable, as iron, unless in use constantly, is liable to rust and stain the thread.

The water for washing is conveyed through rubber tubes to pipes, which are fastened on the sides of the swinging frame by means of staples, these pipes being connected with a perforated pipe, which runs across the frame above the roller and swings therewith, the pipes first mentioned discharging their water into the perforated pipe, which discharges it through its numerous perforations in a continuous shower on the material to be cleaned while the machine is in operation.

In the accompanying drawings, in which similar letters of reference indicate like parts, Figure 1 is a side view of the frame. Fig. 2 is a front elevation. Fig. 3 is a plan view.

A indicates the swinging frame. *c c* indicate the hangers. *s'* indicates the revolving shaft. *f* indicates the pulley. *e* indicates the rubber tubes. *t t* indicate the staples by which the pipes are fastened to the frame A. K indicates the perforated pipe, as seen in Fig. 2. *i* indicates the swinging roller on which the hanks of thread are placed to be manipulated, as seen in Fig. 1. *m'* indicates the stone slab against which the thread is swung. *p* indicates the thread. *h* indicates a pulley. *g* indicates the connecting-rod. *r r* indicate studs by which the connecting-rod connects the frame to the crank-arm. *o* indicates the bolt which keeps in position the end of the roller, which is removed to put on the hanks of thread for manipulation. *d* indicates the crank-arm.

The working of my device is as follows: The revolving shaft *s* being put in motion, motion is then communicated from pulley *f* to crank-arm *d* by means of a belt from shaft *s*, and from thence to the swinging frame A by means of the connecting-rod *g*, which swings the hanks of thread *p* against the stone *m'*. The hanks of thread *p* strike the slab *m'* in such a manner as to switch the ends of the hanks of thread under the stone slab *m'*, and by its peculiar switch switches therefrom all useless matter, while the water which is being discharged from the perforations in pipe K washes the silk or other thread from their impurities.

What I claim as new, and desire to obtain by Letters Patent, is—

1. In a machine for beating and washing
thread in the hank, the swinging frame A, jour-
naled on shaft *s'*, said frame being connected to
crank *d* by studs *r r* and connecting-rod *g*, the
5 frame being provided with pipes to conduct the
water from rubber tubes *e* to the perforated pipe
K, the pipes being fastened to the frame A by
staples *t t*, in combination with the swinging
roller *i*, on which are to be placed the hanks
10 of thread *p*, to be swung against the slab *m'*,
substantially as and for the purpose set forth.

2. In a machine for beating and washing
thread in the hank, the combination, with the
swinging frame A, provided with the pipe K,
of the slab *m'*, shaft *s*, pulley *f*, crank *d*, studs 15
r r, hangers *c c*, connecting-rod *g*, pulley *h*,
shaft *n*, connecting-belts, and rubber tubes *e*,
as set forth.

JOHN E. BOLTON.

Witnesses:

H. LATHAM,
JOHN INGLES.