

(Model.)

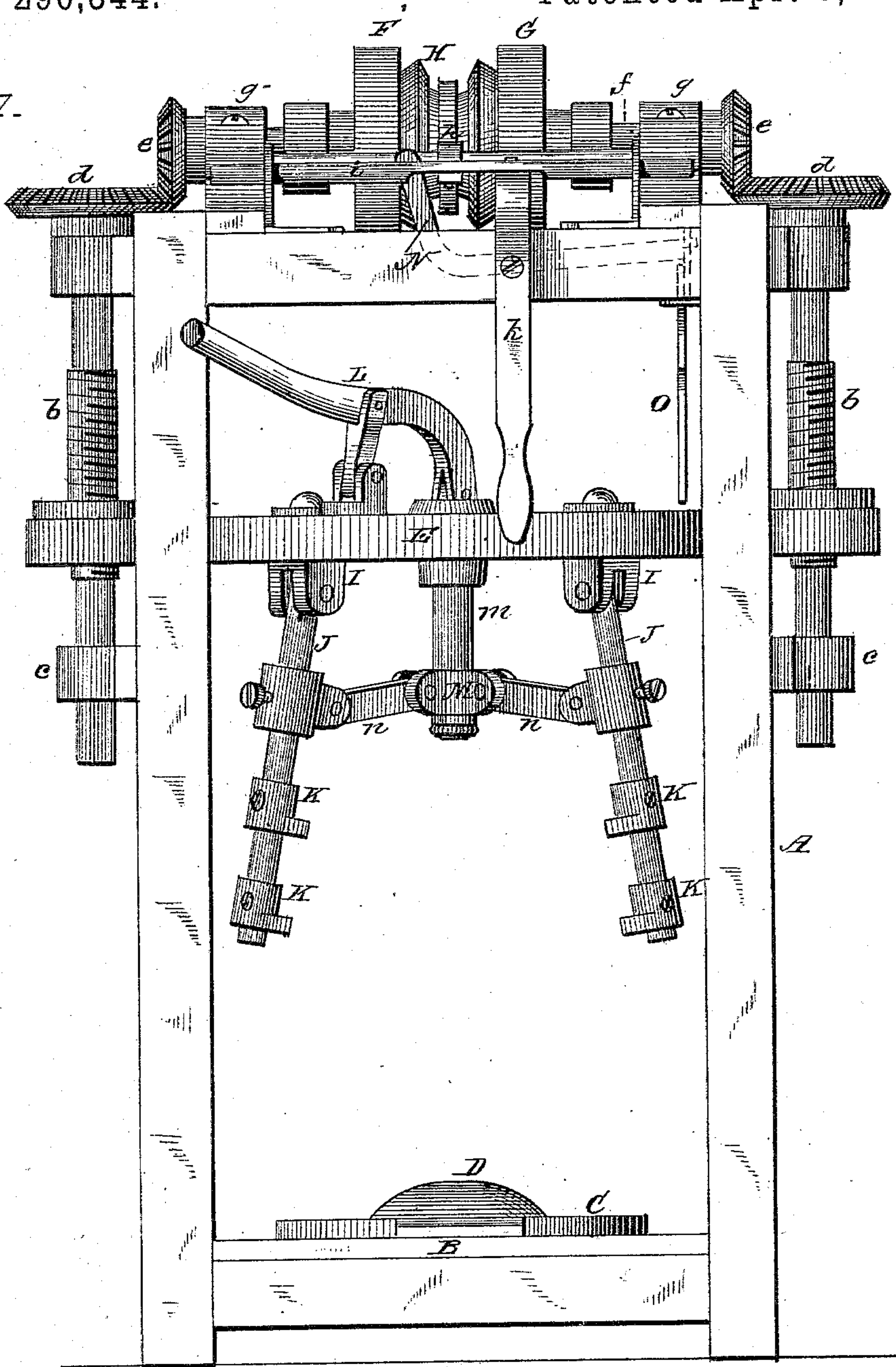
3 Sheets—Sheet 1.

T. W. MCGREGOR.
BARREL TRUSSING MACHINE.

No. 296,344.

Patented Apr. 8, 1884.

Fig. 1.



WITNESSES
F. L. Ouraud
N. E. Oliphant

INVENTOR
Thomas W. McGregor,
per Cha. H. Fowler,
Attorney

(Model.)

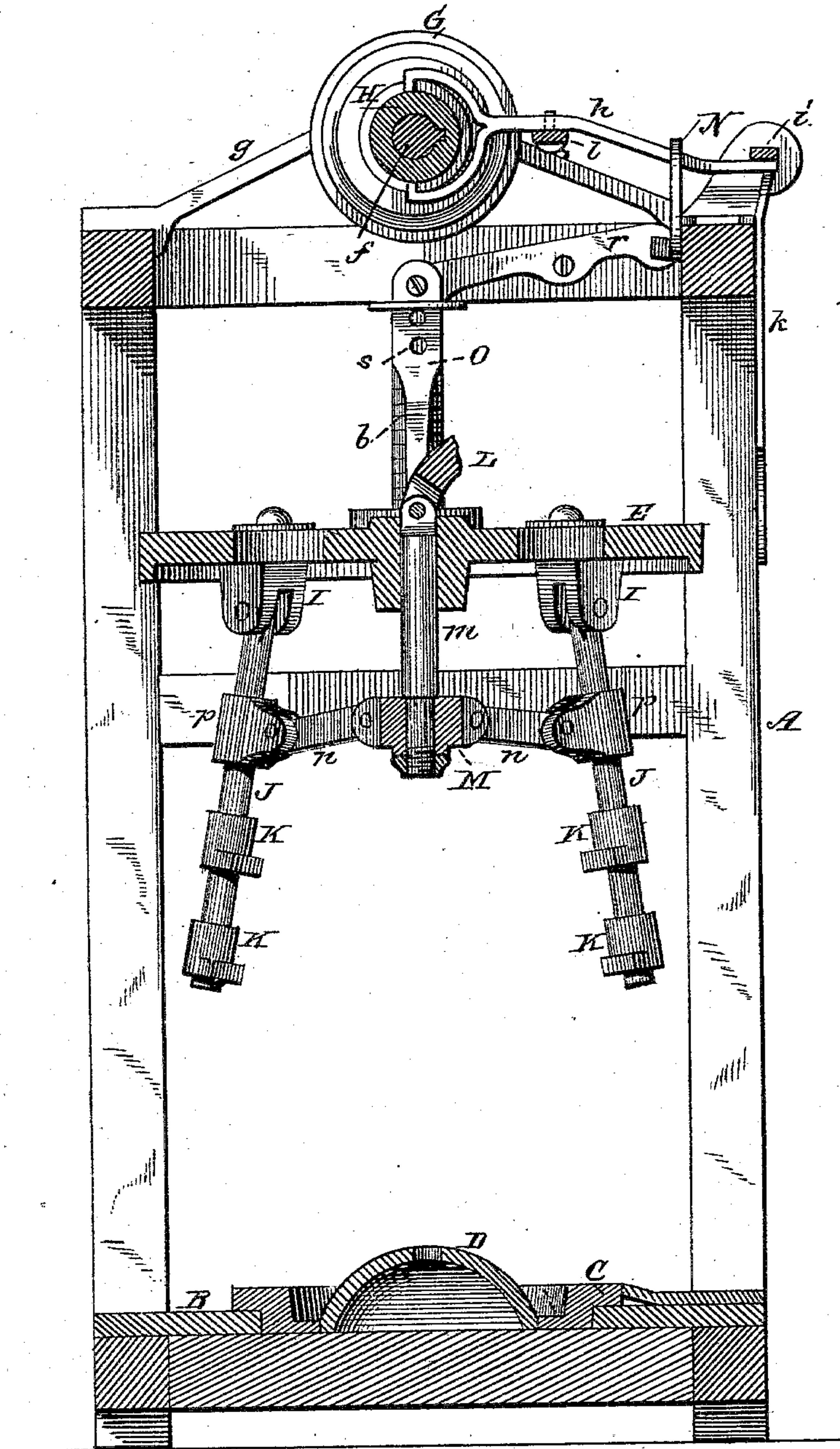
3 Sheets—Sheet 2.

T. W. MCGREGOR.
BARREL TRUSSING MACHINE.

No. 296,344.

Patented Apr. 8, 1884.

Fig. 2.



WITNESSES

F. L. Ourand,
N. E. Oliphant.

INVENTOR

Thomas W. McGregor
per *Chas. H. Fowler*
Attorney

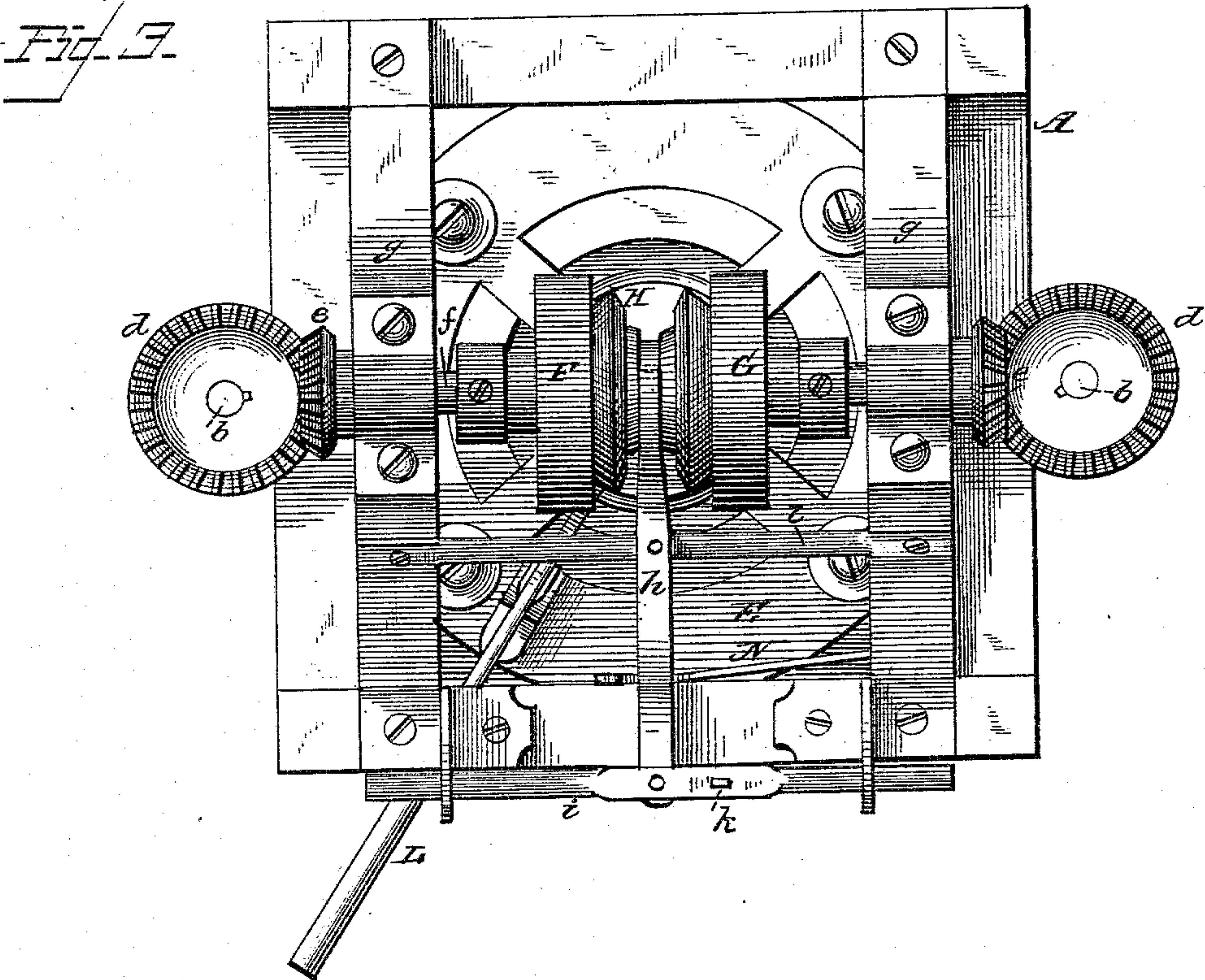
(Model.)

3 Sheets—Sheet 3.

T. W. MCGREGOR.
BARREL TRUSSING MACHINE.

No. 296,344.

Patented Apr. 8, 1884.



WITNESSES
F. L. Ourand
N. E. Oliphant

INVENTOR
Thomas W. McGregor
per Cha. H. Fowler

Attorney

UNITED STATES PATENT OFFICE.

THOMAS W. MCGREGOR, OF RUSHFORD, MINNESOTA.

BARREL-TRUSSING MACHINE.

SPECIFICATION forming part of Letters Patent No. 296,344, dated April 8, 1884.

Application filed September 25, 1883. (Model.)

To all whom it may concern:

Be it known that I, THOMAS W. MCGREGOR, a citizen of the United States, residing at Rushford, in the county of Fillmore and State of Minnesota, have invented certain new and useful Improvements in Barrel-Trussing Machines; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a side elevation of my invention; Fig. 2, an elevation partly in section, and Fig. 3 a top plan view thereof.

The present invention has relation to certain new and useful improvements in that class of barrel-machines adapted to force the hoops upon the barrel; and the object thereof is to improve the general construction of the machine, whereby it is more readily and effectively operated; and it consists in the several details of construction, substantially as shown in the drawings, and hereinafter described and claimed.

In the accompanying drawings, A represents an upright frame of any suitable construction, and provided at its lower end with a base, B. This base has a circular opening to receive a flanged ring, C, of metal or other suitable material, which is detachably connected to the base by screws or other convenient means, so that different-sized rings may be substituted for larger or smaller barrels, a cone, D, resting within the ring for the purpose of centering the barrel.

A suitable trussing-head, E, is supported above the head of the barrel by screw-rods *b*, the threads thereof engaging with screw-threaded holes in the head, through which the rods pass, the lower ends of said rods being smooth and entering guides *c*, secured to the frame A.

To the upper ends of the rods *b* are keyed or otherwise secured bevel-gear wheels *d*, with which engage pinions *e* upon the ends of a horizontal shaft, *f*, having its bearings in braces *g*, secured to the upper end of the frame A.

Upon the shaft *f* are mounted loose band-pulleys F G, which are driven in opposite di-

rections by means of suitable belts connecting with an engine or other motor.

Upon the shaft *f*, and between the pulleys F G, is loosely mounted a slide-pulley, H, which is prevented from rotating by a spline, feather, or other suitable means usually employed for the purpose.

The sliding pulley H is grooved at its middle to receive the bifurcated end of an arm, *h*, the opposite end thereof being suitably connected to a sliding rod, *i*, to which is secured a hand-lever, *k*, for operating said rod, the arm being also pivotally connected to a cross-rod, *l*, secured at its ends to the braces *g*.

By the above-described means the sliding pulley H may be moved to the right or left to engage with and lock either one of the two pulleys F and G to the shaft, for the purpose of causing the shaft to rotate in a direction either to the right or left, as required. By the rotation of the shaft *f*, and through the medium of the gear-wheels *d*, pinions *e*, and screw-rods *b*, the trussing-head E is caused to be elevated or lowered, as the case may be.

To the underside of the trussing-head E are connected blocks I, to which are pivoted the upper ends of driving-arms J, said arms carrying dogs K, which are adjustably connected thereto.

To the upper side of the trussing-head E is suitably connected a hand-lever, L, having pivoted at its inner end a rod, *m*, which passes down through a central hole in the trussing-head.

To the lower end of the rod *m* is suitably connected a spider, M, which has radially pivoted thereto a series of links, *n*, said links at their outer ends being pivoted to collars *p*, through which pass the driving-arms J, and are secured to the collars by suitable set-screws.

By means of the lever L the arms J can be thrown outward or brought toward the center against the barrel.

To the inner side of the frame A is pivoted a bell-crank lever, N, one end thereof being connected to a pivoted arm, *r*, which in turn is pivoted to the upper end of a stop-lever, O, extending down vertically over the trussing-head E, which not only prevents the head from rising too high and coming in contact with

the pulleys on the counter-shaft and breaking them, but operates the bell-crank lever N, which in turn operates the bifurcated arm *h* to shift the pulley H, for the purpose hereinbefore described.

The operation of the machine is as follows: The barrel, with its hoops placed thereon, is set in the ring C, the cone D centering the barrel. The operator now moves the pulley H in the proper direction by means of the lever *k* and bifurcated arm *h*, which will cause the trussing-head E to descend, and by means of the lever L the dogs on the driving-rods J are brought in contact with the truss-hoops upon the barrel. When the operator considers that the hoops are sufficiently tight, the lever *k* is moved far enough in the proper direction to cause the pulley H to engage with the belt or band pulley upon the opposite side thereof, thereby rotating the shaft *f* in an opposite direction, and causing the trussing-head E to be elevated away from the barrel. The trussing-head, as it ascends, comes in contact with the end of the depending lever O, which by its connections or through the medium of the bell-crank lever N will move the pulley H so as to free it from contact with either of the belt or band pulleys F G, thereby stopping the rotation of the shaft *f*, and also the movement of the trussing-head.

The trussing-head can be made to automatically stop at any point in its ascent by decreasing or diminishing the length of the lever O from the point where it connects with the arm *r*, holes *s* being made in the lever for this purpose.

It should be understood that the ring C not only forms a rest for the barrel, but drives the head-hoop thereof, while the dogs K drive the bilge and quarter hoops, after which the operator turns over the barrel and the operation is repeated.

By the employment of the central rod, *m*, and spider M, and connecting the driving-arms J thereto by the pivoted links *n*, the weight of

the rod and spider will cause them to descend, and through the medium of the link-connection automatically throw outward the driving-arms, thus leaving the operator free to handle the barrel.

Having now fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a barrel-trussing machine, a vertically-operating trussing-head provided with the usual pivoted driving-arms and dogs, in combination with a vertically-sliding rod extending centrally through the head, and connected at its lower end to the driving-arms by spider and pivoted links, and at its upper end to a hand-lever pivoted to the trussing-head, and adapted to operate to automatically throw the arms outward by the weight of the rod and spider, and brought against the barrel by the pivoted lever, substantially as and for the purpose set forth.

2. In an upright barrel-trussing machine, a suitable trussing-head, in combination with an adjustable depending lever extending over the trussing-head, and connected to the mechanism for reversing the motion of the counter-shaft or stopping it by a pivoted arm and a bell-crank lever, substantially as and for the purpose specified.

3. In an upright barrel-trussing machine, the combination, with a flanged ring detachably connected to the base of the machine, of a centering-cone, said ring having a central opening equal to the greatest diameter of the cone within which it rests, and a horizontal flange to form a space between the flange and cone, substantially as and for the purpose set forth.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

THOMAS W. MCGREGOR.

Witnesses:

M. J. DESMOND,
E. A. SYKES.