

(Model.)

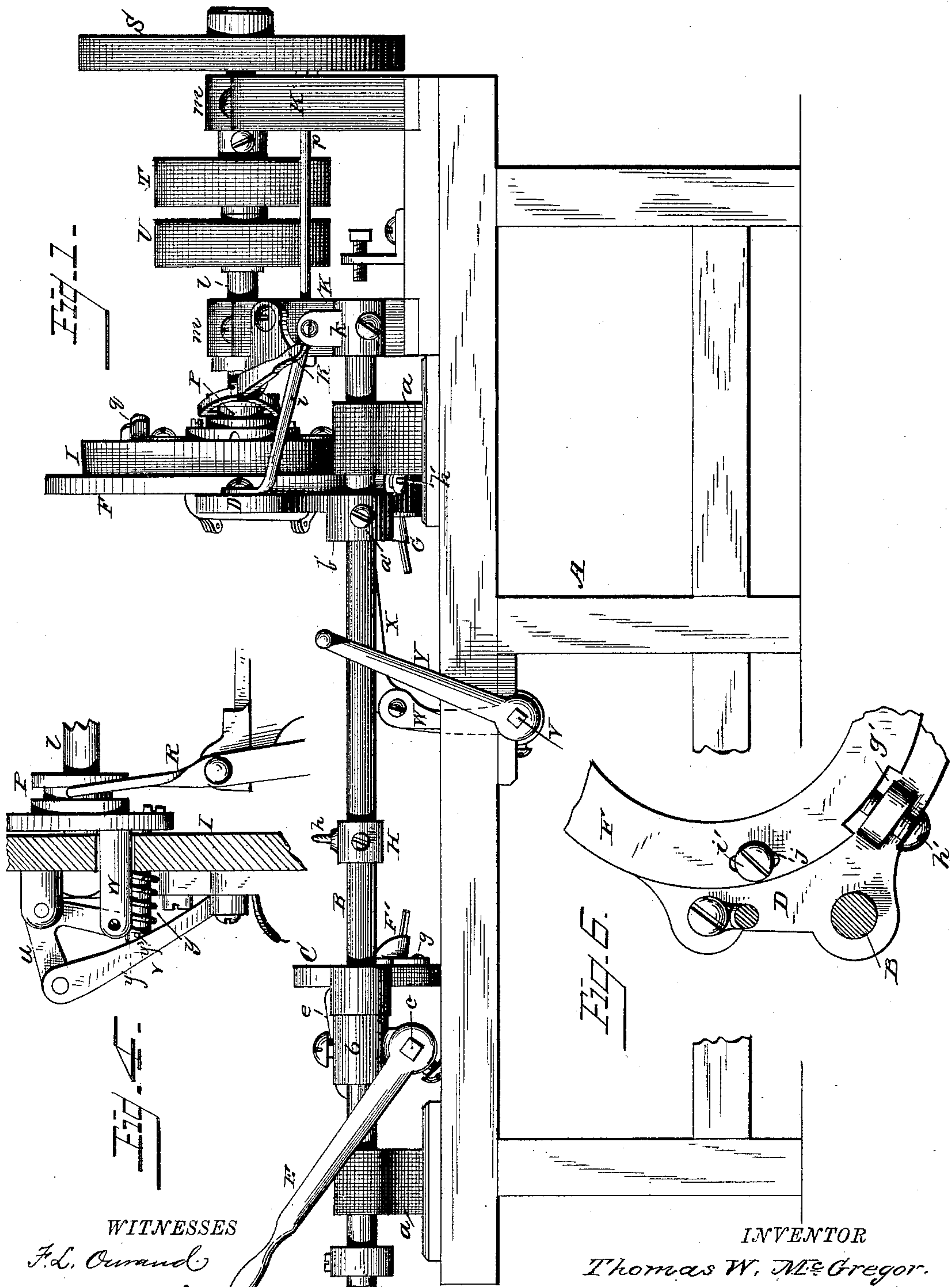
3 Sheets—Sheet 1.

T. W. McGREGOR.

BARREL MACHINE.

No. 318,489.

Patented May 26, 1885.



WITNESSES  
F. L. O'Rand  
N. E. Oliphant

INVENTOR  
Thomas W. McGregor.  
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(Model.)

3 Sheets—Sheet 2.

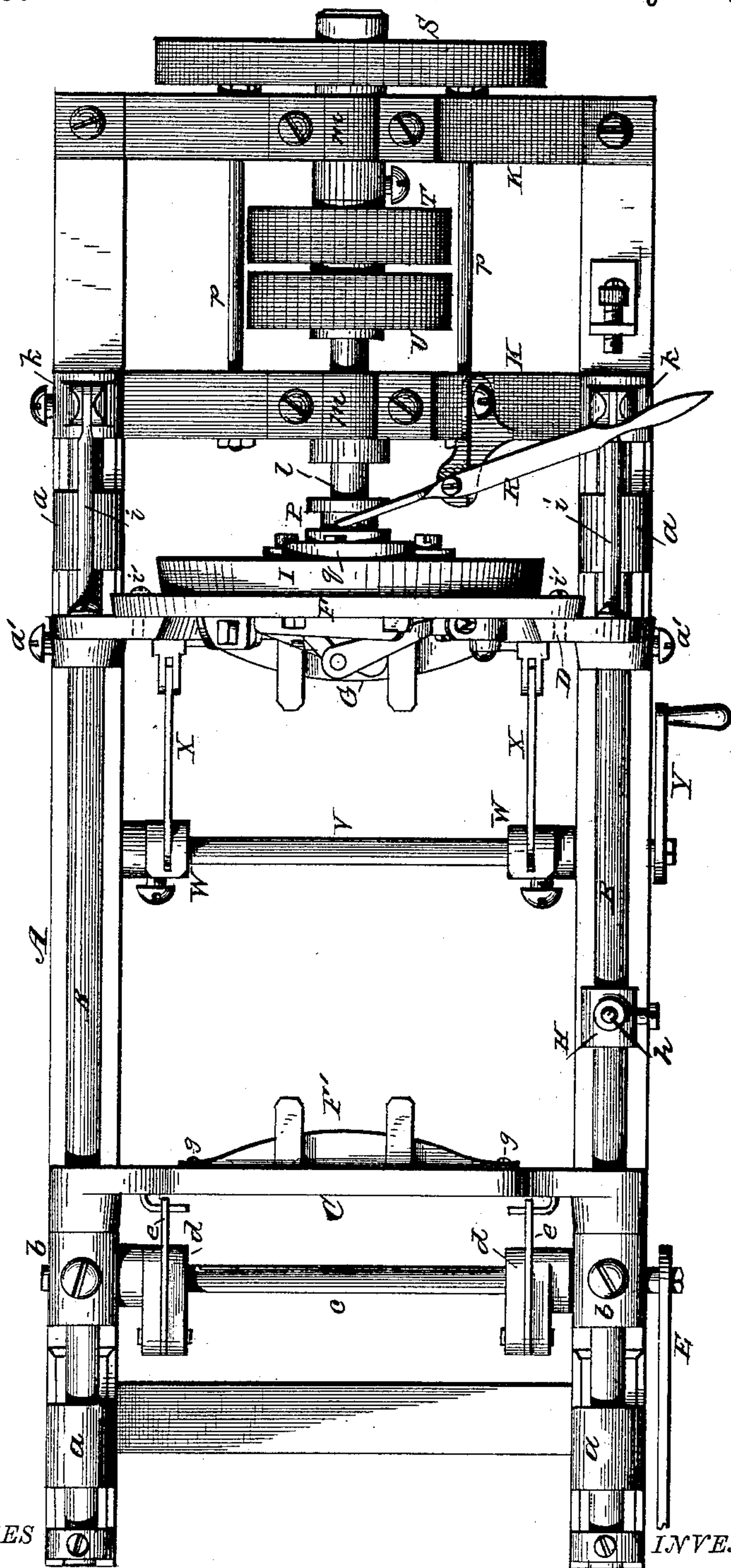
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Fig. 2.



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(Model.)

3 Sheets—Sheet 3.

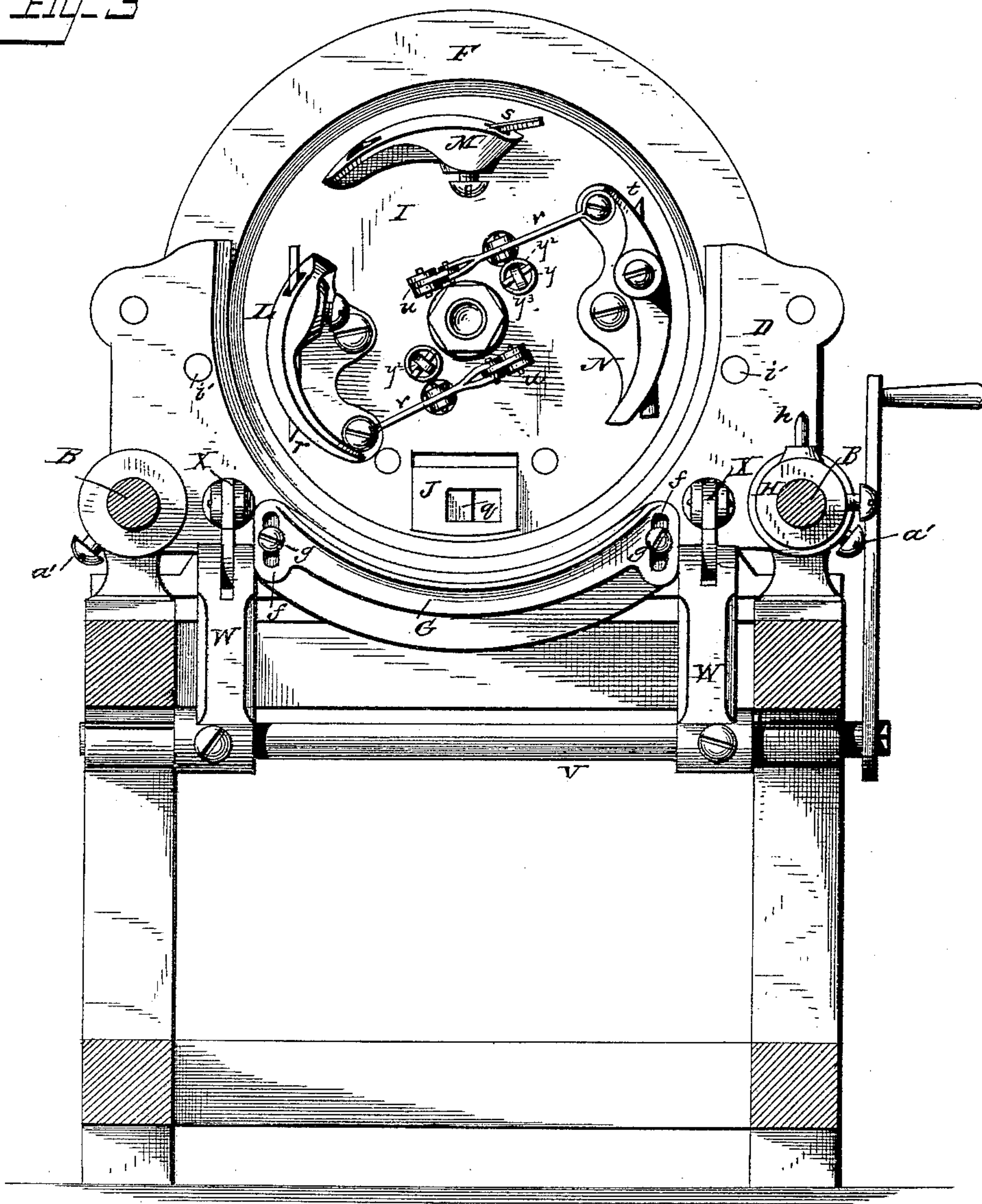
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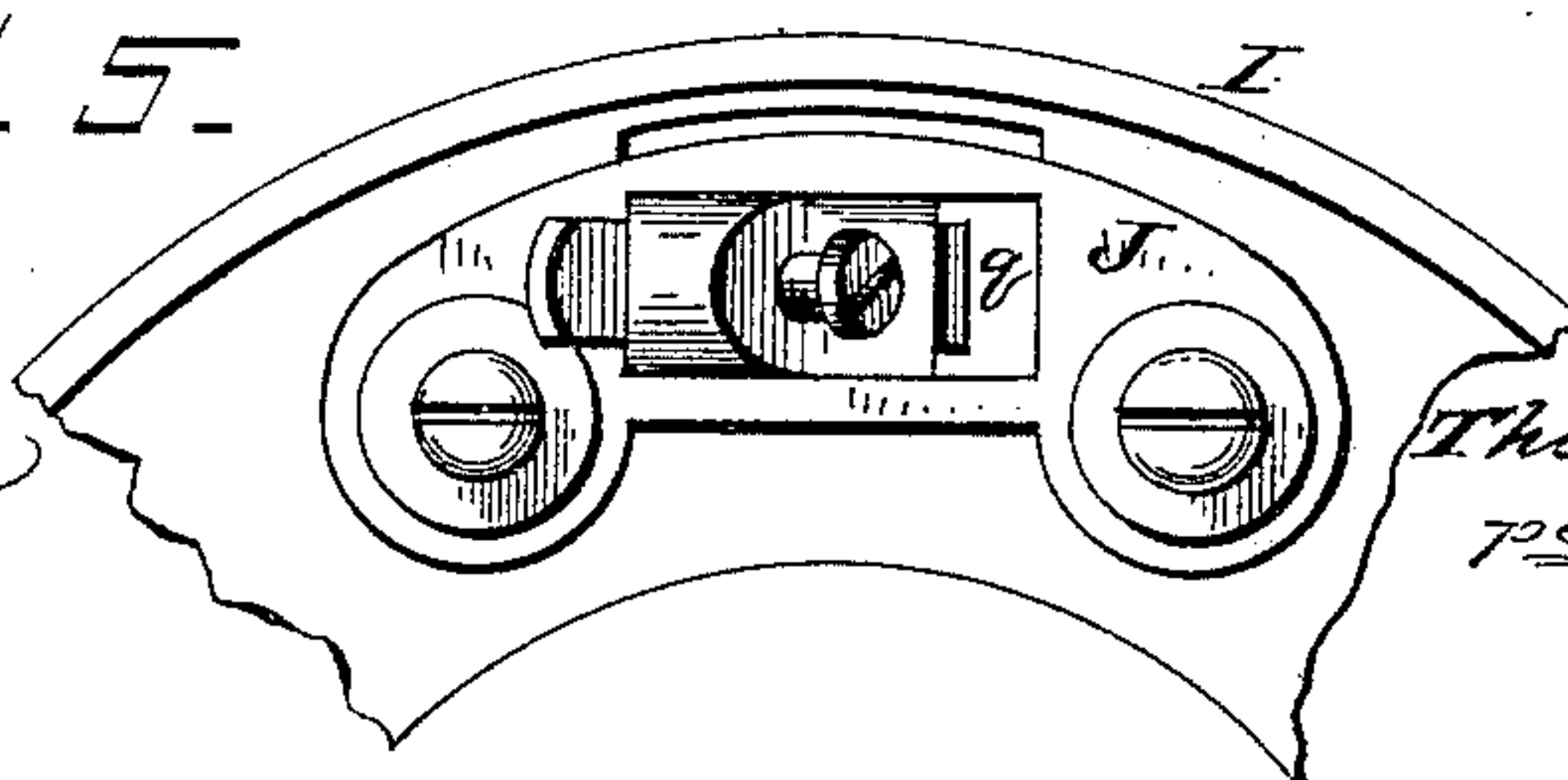
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*Fig. 3*



*Fig. 5*

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# UNITED STATES PATENT OFFICE.

THOMAS W. MCGREGOR, OF RUSHFORD, MINNESOTA.

## BARREL-MACHINE.

SPECIFICATION forming part of Letters Patent No. 318,489, dated May 26, 1885.

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 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 improved barrel-machine; Fig. 2, a top plan view thereof; Fig. 3, a cross-section; Fig. 4, a detail view of a portion of the cutter-head and its connections, and Fig. 5 a detail view showing the manner of attaching the leveler-block and knife. Fig. 6 is a detail view showing the manner of attaching the ring to the head-block.

The present invention has reference to that class of barrel-machines adapted to croze, level, chamfer, and howel tight or slack barrels; and the purpose of the invention is to improve the general construction of the above-mentioned class of machines, whereby the operation is more readily controlled and its effectiveness greatly increased, and the work coming from the machine is more uniform and perfect.

The invention therefore consists in the several details of construction, substantially as shown in the drawings, and hereinafter described and claimed.

In the accompanying drawings, A represents a rectangular frame, of any desirable construction, to which the several parts of the machine are connected. To the upper side of the frame A are secured suitable boxes, *a*, to receive horizontally-sliding rods B, arranged parallel to each other upon sides of the frame and extending lengthwise thereof. Upon the rods B is mounted the tail-block C, adapted to slide thereon, while the head-block D is made fast to the rods, but may be set nearer to or farther from the ends of the rods B by the set-screws *a'*, passing through the sleeves *b'* of said head-block. To the rods B are connected, by set-screws or other suitable means, collar-boxes

*b*, which support a transverse shaft, *c*, and upon said shaft are rigidly secured brackets *d*, having pivoted thereto links *e*, which are pivotally connected to the tail-block C, said block by means of the lever E upon the shaft *c* forcing the end of the barrel into the head-ring F. The collar-boxes *b* are adjustable upon the rods B to suit barrels of different sizes or lengths. The tail-block C, upon its inner side, has adjustably connected to it a rest, F', of any desirable construction, and to the head-block D is similarly connected a rest, G. Both the rests F' G are of the same form and construction, and are adjustable by means of slots *f* and set-screws *g*, as shown in Fig. 3, thus admitting of the rests being raised or lowered to suit barrels of varying sizes, and also to support the barrel while being operated upon. Upon one of the rods B is adjustably secured by set-screw a collar, H, provided with a spur, *h*, which is intended to enter the barrel and act as a pivot to turn the barrel around to bring the opposite end of said barrel to the head-block. To the head-block D are connected stay-rods *i*, the opposite ends of said rods being secured to adjustable collars *k* upon the ends of the rods B.

To the head-block D is attached by screws *i'* the head-ring F, so that said ring will be carried with it when the rods are operated, and also when the head-block is adjusted upon the rods. The head-ring F has grooves *g'* in its edge, against which bear the ends of set-screws *h'*, thus enabling the ring to be centered and retained in a true line with the cutter-head I. The adjustment of the ring F is attained by the elongated slots *j*, formed therein and held in the position adjusted by the screws *i'*. This cutter or working-off head I is attached to and supported by a spindle, *l*, which revolves in bearing-boxes *m*, set in two elevated brackets, K, connected to the frame A of the machine, said brackets being connected by stay-rods *p*. The cutter-head I is for leveling, crozing, chamfering, and howeling tight or slack barrels, the leveler consisting of the knife *q*, adjustably and removably secured to a block, J, set in the face of the cutter-head. The crozer consists of a curved block, L, carrying an adjustable and remova-



ble knife, *r*, said block being balanced and removably connected to the cutter-head. The chamferer-block M is also provided with a suitable knife, *s*, adjustable and removable therefrom, and the howeler-block N is a balanced block similar to the crozer-block, and carries a suitable knife, *t*. The several knives of the blocks are held in position by set-screws, the knives passing through slots in said blocks.

Any suitable or well-known means, however, may be employed for holding the knives to the blocks, and rendering them adjustable and removable. The crozer and howeler blocks are pivotally connected to the cutter-head, and are connected to bell-crank levers *u* by links *v*. These bell-crank levers *u* are connected to rods *w*, which pass through holes in the cutter-head, said rods being secured to a disk, P, which is made or caused to slide on the spindle *l* by means of the lever R. The crozer and howeler blocks, by their connections with the disk P, as above described, are operated by the lever R, spiral springs *y* being employed for taking said crozer and howeler out of cut, said springs being sleeved on a pin, *y'*, attached to the disk P, and projecting through the openings *y''* in the head I, the springs finding their points of resistance between the head and a stop, *y'''*, on the end of said pins *y'*. A balance-wheel, S, is connected to the spindle *l*, as is also a loose and fixed belt-pulley, T U. A transverse rod, V, has its bearing in boxes secured to the frame A, and by brackets W and links X connection is made between the rod and the head-ring and block D F, for moving said ring and head-block to or from the cutter-head by means of the handle Y.

Having now fully described my invention,

what I claim as new, and desire to secure by Letters Patent, is—

1. In a barrel-machine, the combination of a rotary cutter-head, a longitudinally-sliding guide-frame, a reciprocating tail-block, and means for imparting an independent reciprocatory movement thereto, mounted on said guide-frame, the tail-block carrying an adjustable barrel-rest, a head-block supported by said guide-frame and provided with an adjustable head-ring, and an independently-adjustable barrel-rest, as and for the purposes set forth.

2. In a barrel-machine, the combination of a rotary cutter-head, a longitudinal sliding guide-frame, a head and tail block, longitudinally adjustable on said frame, each provided with a vertically-adjustable barrel-rest, means connected with the frame to give the tail-block an independent longitudinal movement, and a head-ring adjustably secured to the head-block independently of the barrel-rest, the parts being constructed, arranged, and operating as and for the purposes set forth.

3. In a barrel-machine, the combination, with the cutter-head thereof and the head and tail blocks, of an adjustable collar mounted upon a rod or other suitable support, said collar having a spur to enter the barrel and form a pivot upon which the barrel is turned, substantially as and for the purpose described.

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.