(No Model.)

R. MOCHRIE.

BEAMING MACHINE.

No. 587,396. Patented Aug. 3, 1897.

Fig. 1

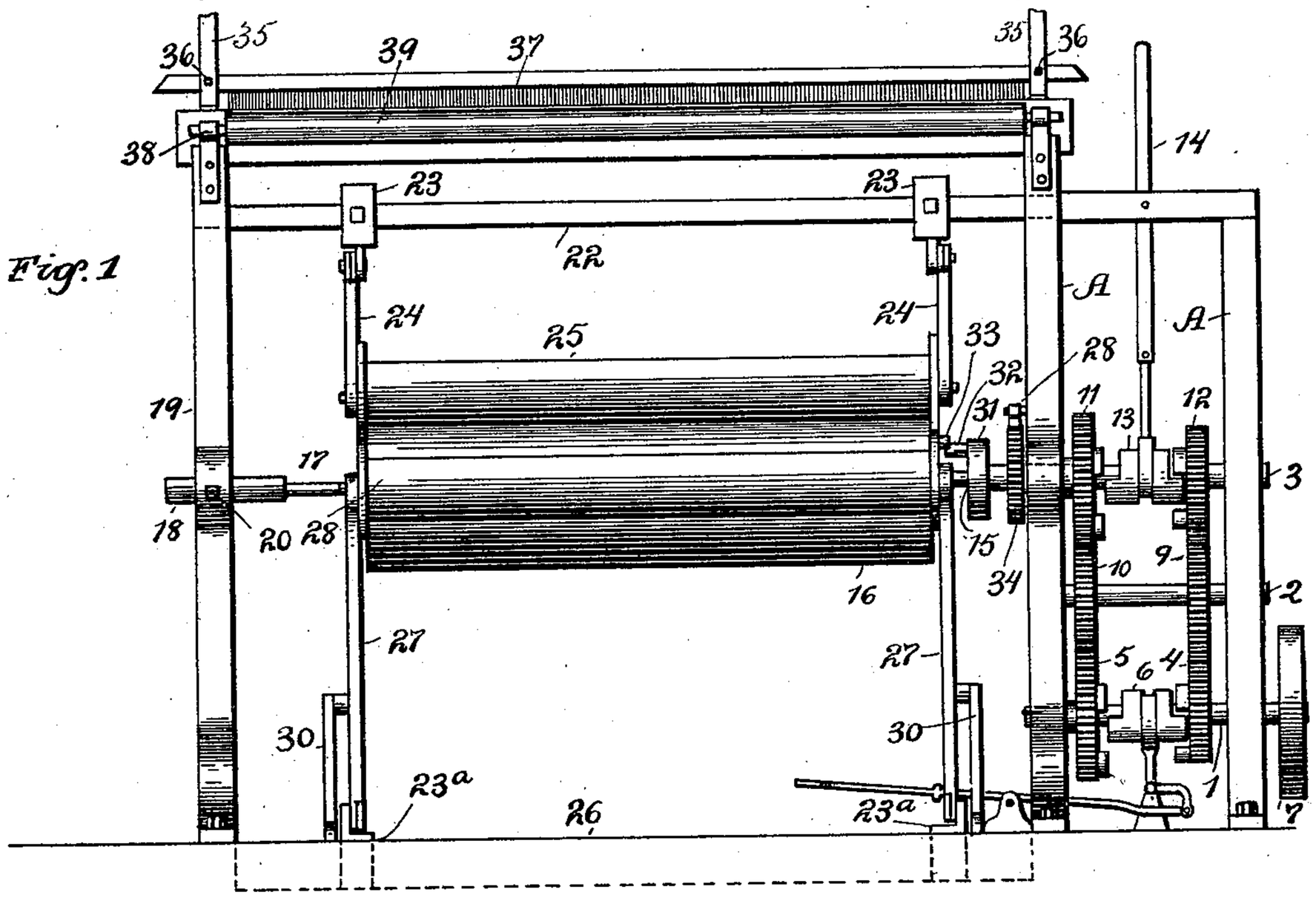


Fig. 2.

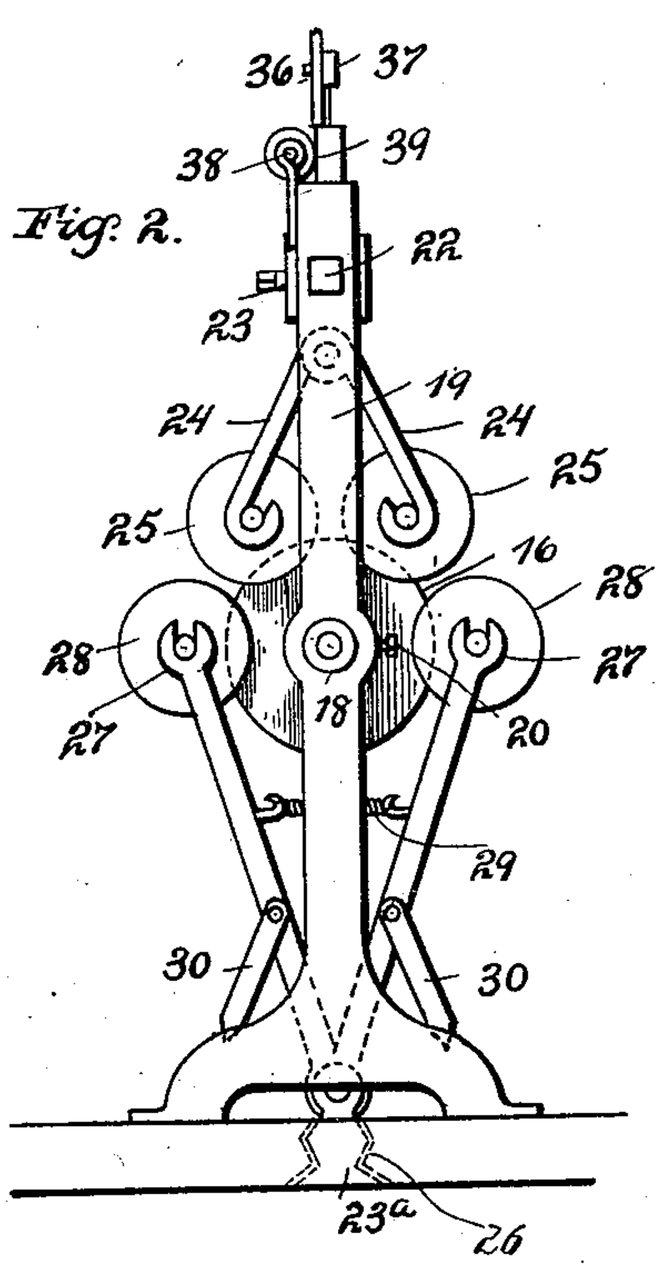
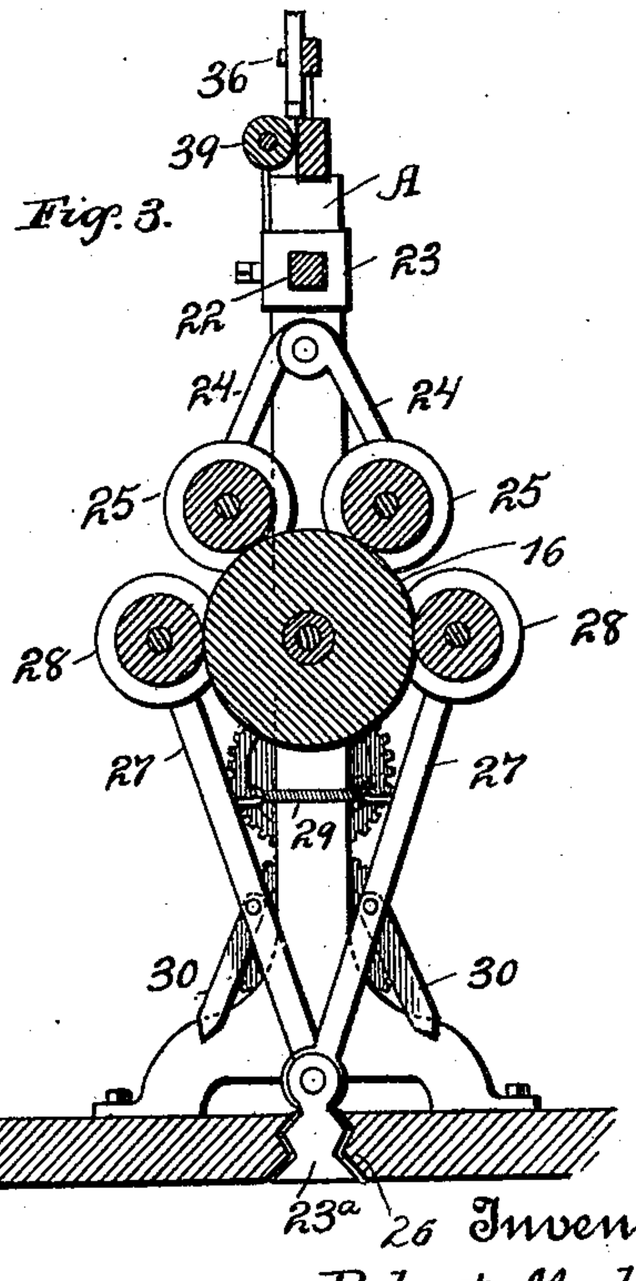


Fig. 3.



Witnesses
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UNITED STATES PATENT OFFICE.

ROBERT MOCHRIE, OF LOWELL, MASSACHUSETTS.

BEAMING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 587,396, dated August 3, 1897.

Application filed July 28, 1896. Serial No. 600,809. (No model.)

To all whom it may concern:

Be it known that I, ROBERT MOCHRIE, a resident of Lowell, in the county of Middlesex and State of Massachusetts, have invented certain new and useful Improvements in Beaming-Machines; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to an improvement in beaming-machines, the object of the invention being to provide simple and efficient means whereby two or more beams or spools can be wound simultaneously by the same driving mechanism.

With this object in view the invention consists in certain novel features of construction and combinations and arrangements of parts, as hereinafter set forth, and pointed out in the claims.

In the accompanying drawings, Figure 1 is a view illustrating my improvements. Fig. 2 is an end view. Fig. 3 is a sectional view.

A represents a frame in which three shafts 1 2 3 are mounted. On the shaft 1 gear-wheels 4 5, differing in size, are loosely mounted and adapted to be locked to the shaft (alternately) by means of a clutch 6, and the latter may be operated by means of a foot-lever or in any other suitable manner. The shaft 1 extends outwardly beyond its bearing in the frame A and provided with a pulley 7 for the reception of a belt from any convenient source of power. Gear-wheels 9 10 are secured to the shaft 2, the gear-wheel 9 being considerably larger than the gear-wheel 4 and adapted to receive motion from the latter. The gear-wheel 10 is somewhat smaller than the gear-wheel 9 and receives motion from the gear-wheel 5 on shaft 1, said gear-wheel 10 being larger than the gear-wheel 5. On the shaft 3 a gear-wheel 11 is loosely mounted and receives motion from the gear-wheel 10. Another gear-wheel 12 is loosely mounted on the shaft 3, said gear 12 being smaller than the gears 9 and 11 and receiving motion from the former. A clutch 13 is mounted on the shaft 3 between the gears 11 and 12 and adapted to be operated by a lever 14 to lock one or the other of the gears 11 12 to said shaft 3. The shaft 3 is extended beyond its bearings in the frame A and at one end constitutes a bearing for the journal 15 of a cylinder 16, the other journal 17 of said cylinder having a bearing in a sleeve 18, mounted in a post 19. The sleeve 18 is held in position in the post by means of a set-screw 20, so that it can be adjusted for cylinders of different lengths and also to permit beams of different lengths to be used in the machine without the necessity of moving portions of the framework. A bar 22 is secured to the framework, and on said bar collars 23 are adjustably located. Two arms 24 24 are pivotally connected to each collar 23, and in the lower hooked ends of these arms beams 25 are mounted and adapted to receive motion from the cylinder 16. Sliding blocks 23^a are adapted to move in ways 26 in the floor or base under the cylinder 16, and to said blocks the lower ends of arms 27 are pivoted. Beams 28 are mounted in the upper ends 27 and forced toward the cylinder 16 by means of springs 29, from which cylinder said beams receive motion. Props 30 are attached to the arms 27 to prevent the filled beams 28 from touching the floor when being removed.

A disk 31 is secured to the end of shaft 3 and is provided with an arm or pin 32, adapted to engage a pin or dog 33 on the cylinder, whereby to transmit motion to the latter.

In order to keep the yarn tight when the machine is stopped, a ratchet-wheel 34 is secured to the shaft 3 and adapted to be engaged by a dog 28, connected with the frame A. Brackets 35 are secured to the frame A and post 19 and have bearings 36 for the ends of the comb 37 and bearings 38 for the bar 39.

My improvements are simple in construction, enable me to run several beams at the same time by the same driving mechanism, and are effectual in the performance of their functions.

By the arrangement of gearing above described the speed of the cylinder 16 and beams 25 and 28 can be changed as desired by shifting the clutch 13.

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

1. In a beaming-machine, the combination with a frame and a base, the latter having a guideway, of a cylinder mounted in said

frame, means for driving said cylinder, blocks mounted to slide in said guideway, a pair of arms pivotally connected to each block, beams mounted in the free ends of said pivoted arms, and springs connecting the arms of each pair whereby to impel the beams toward the cylinder, substantially as set forth.

2. In a beaming-machine, the combination with a frame and a base, the latter having a guideway, of a cylinder mounted in the frame, blocks mounted to slide in said guideway, a pair of arms pivoted to each block, beams mounted in the free ends of said arms, springs connecting the arms of each pair whereby to impel the beams toward the cylinder and props attached to said arms and serving to prevent contact of filled beams with the base, substantially as set forth.

3. In a beaming-machine, the combination with a base having a guideway therein, and a frame, of a cylinder mounted in the frame, driving mechanism for said cylinder, blocks adapted to slide in said guideway, a bar located in the frame above the cylinder and parallel with said guideway, collars adjustably mounted on said bar, arms pivotally attached to said collars and blocks and bearings at the free ends of said arms for the reception of the journal of beams, said arms and bearings being so disposed that all of said beams will receive motion simultaneously from said cylinder, substantially as set forth.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

ROBERT MOCHRIE.

Witnesses:
ERNEST SHAW,
WM. A. HOGAN.