No. 861,185. PATENTED JULY 23, 1907.

B. JANELLE.

FILLING REPLENISHING MECHANISM FOR LOOMS.

APPLICATION FILED MAR. 7, 1907.

Fig. 1, B

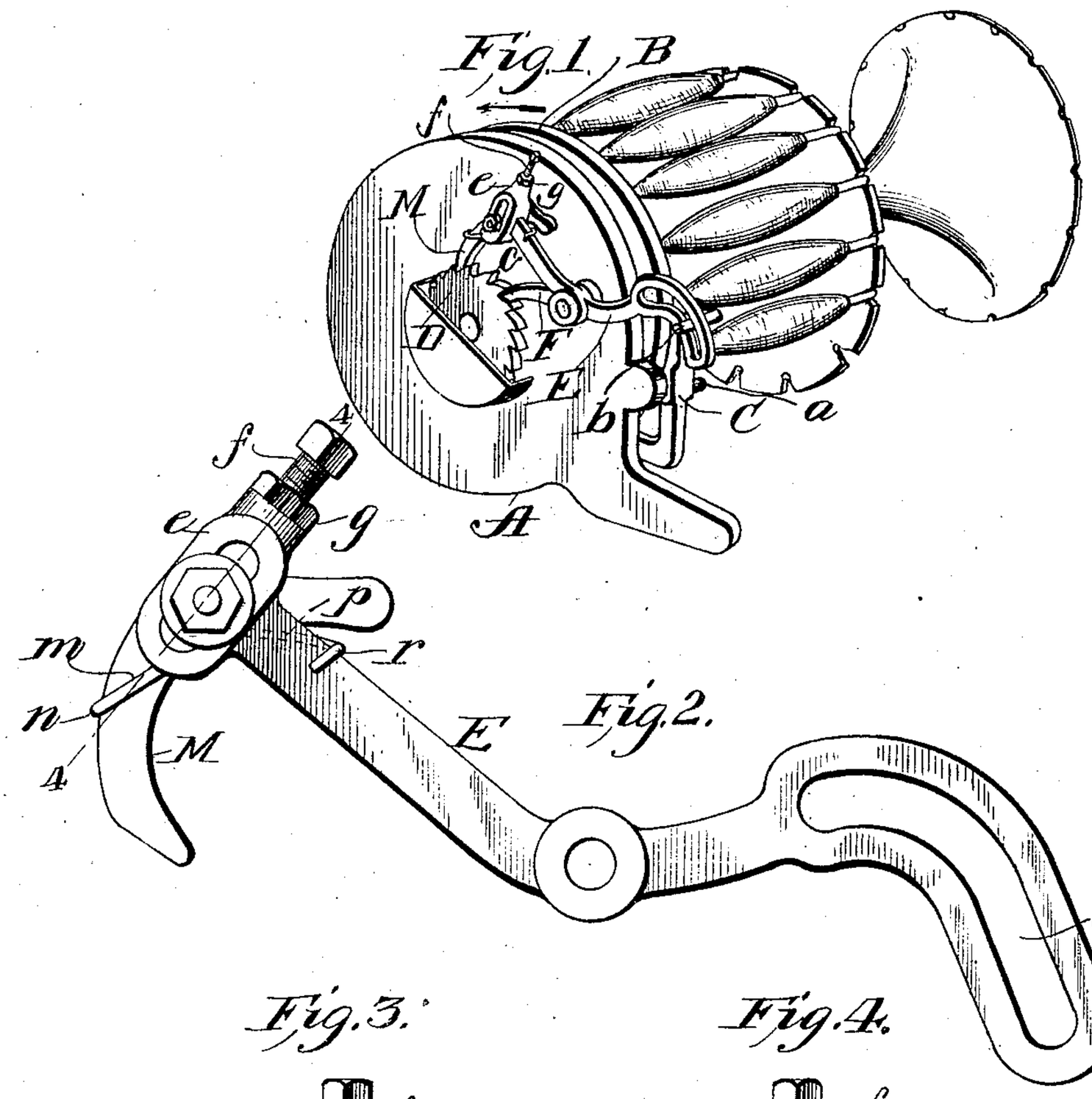


Fig. 2.

Fig. 3.

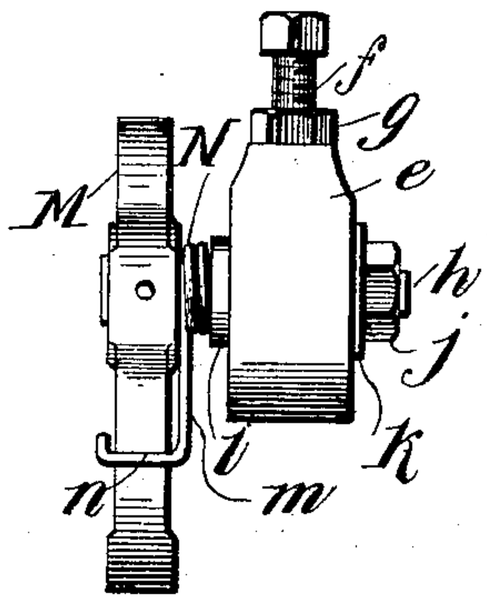
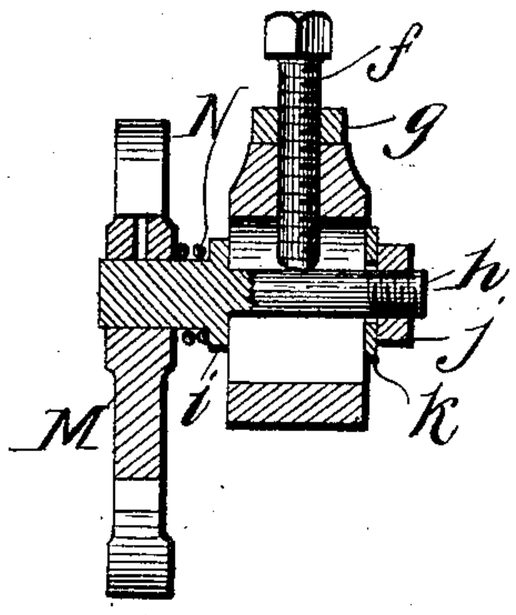


Fig. 4.



Witnesses
J. J. Healy Jr.
N. C. Healy

Inventor
Belonie Janelle.
By James J. Healy
Attorney

UNITED STATES PATENT OFFICE.

BELONIE JANELLE, OF MANCHESTER, NEW HAMPSHIRE.

FILLING-REPLENISHING MECHANISM FOR LOOMS.

No. 861,185. Specification of Letters Patent. Patented July 23, 1907.

Application filed March 7, 1907. Serial No. 361,041.

To all whom it may concern:

Be it known that I, BELONIE JANELLE, a citizen of the United States, residing at Manchester, in the county of Hillsboro and State of New Hampshire, have invented new and useful Improvements in Filling-Replenishing Mechanism for Looms, of which the following is a specification.

My invention pertains to filling replenishing mechanism for looms of the type embodying filling feeders that are rotatable step by step; and it has for its object to improve such mechanism by the provision of simple and durable means calculated to so move the feeder after a filling-carrier is transferred therefrom that the next filling-carrier will rest in a position exactly over the position in which the shuttle is placed to receive filling, this with a view of assuring the proper supply of filling to the shuttle at intervals during the operation of the loom.

With the foregoing in mind, the invention will be fully understood from the following description and claims when the same are read in connection with the accompanying drawings, forming part of this specification, in which:

Figure 1 is a view of so much of a well known type of filling-replenishing mechanism as is necessary to illustrate the arrangement of the preferred embodiment of my invention. Fig. 2 is an enlarged side elevation of the lever comprised in my improvements, and the appurtenances thereof. Fig. 3 is an enlarged detail plan of the upper end thereof. Fig. 4 is an enlarged, detail section taken at a right angle to Fig. 2, and in the plane indicated by the line 4—4 of Fig. 2.

Similar letters designate corresponding parts in all of the views of the drawings, referring to which:

A is a stand on which is mounted a rotary filling-feeder B which is preferably of the ordinary, well known construction, though it may be of any other construction compatible with the purpose of my invention without involving departure from the scope of the appended claims. The said stand A is provided with the usual lateral projection *a*, and to it is connected a filling-carrier transferrer C which is provided with a lateral arm *b* for coöperation with my improvements, and is otherwise, by preference, of the ordinary, well known construction and connected to the stand A in the usual manner.

Fixed on a sleeve connected to one of the disks of the rotary feeder B and arranged outside the stand A is a ratchet wheel D having teeth *c* corresponding in number to the holding devices for filling-carriers in the feeder, while fulcrumed on the lateral projection *a* of the stand A is the vertically-swinging lever E of my improvements. Also fulcrumed on the said projection *a* is a gravitating dog F which has for its office to prevent retrograde movement of the ratchet wheel D and feeder B.

The lever E is provided in its lower arm with a curvilinear slot *d* arranged to receive the lateral arm *b* of the transferrer C, and at the upper end of its upper arm it is provided with a transversely slotted head *e* in one end of which bears a screw *f*, locked against casual movement by a jam nut *g*, for a purpose set forth. In the slot of the head *e* is adjustably arranged a bolt *h* having a collar *i* at an intermediate point of its length, positioned at the inner side of the head, Figs. 3 and 4, and also having its outer end threaded to receive a nut *j* between which and the outer side of the head is interposed a metallic washer *k*. The bolt *h* is adjustably fixed in the slot of head *e* through the medium of the nut *j*, and casual backward shifting of said bolt while the mechanism is in use is effectually prevented by the screw *f* against the inner end of which the bolt rests, as illustrated.

On the inner portion of the bolt *h* is loosely mounted a vertically-rocking pawl M, the forward end of which is arranged to engage the teeth *c* of ratchet wheel D, and surrounding said bolt *h*, at the inner side of the said pawl M, is a coiled spring N which terminates at one end in a forwardly extending arm *m* having a loop *n* at its end arranged over the pawl M, and at its opposite end in a rearwardly extending arm *p* having a loop *r* at its rear end arranged over the forward arm of lever E. Thus it will be apparent that the said pawl *m* will be yieldingly held against the teeth *c* of wheel D and will always be in position to properly engage the said teeth.

In the practical operation of my improvements, it will be seen that when the forward portion of the transferrer C is moved downward to transfer a filling carrier from feeder B to the shuttle, the arm *b* on said transferrer will be moved upward, when said arm *b* coacting with the slotted arm of lever E will depress said slotted arm of the lever and raise the forward arm thereof with the result that the pawl M will be moved back on ratchet wheel D the distance of one tooth. Then when the forward arm of transferrer C is raised and the arm *b* is depressed, the pawl M will turn the wheel D and through said wheel D the feeder B in the direction indicated by arrow the distance of one tooth, and by so doing will correctly position the filling-carrier following the one that was displaced so that said filling-carrier will rest in exactly the proper position to be transferred to the shuttle on the succeeding operation of the transferrer C.

It will be gathered from the foregoing that my improvements are simple in construction and reliable in operation, and that all of the parts thereof are well adapted to withstand the usage to which filling-replenishing mechanism is ordinarily subjected.

Having described my invention, what I claim and desire to secure by Letters-Patent, is:

1. In a filling replenishing mechanism for looms, the combination of a stand, a rotatable filling feeder mounted

on the stand, a ratchet wheel fixed with respect to the filling feeder and arranged at the outer side of the stand, a vertically swinging transferrer connected with the stand and having a rear, lateral arm, a vertically swinging lever fulcrumed at an intermediate point of its length on the outer side of the stand and having a rear, slotted portion receiving the rear lateral arm of the transferrer, and means on said lever for engaging the ratchet wheel and rotating the filling feeder step by step on the upward movement of the transferrer.

2. In a filling replenishing mechanism for looms, the combination of a stand, a rotatable filling feeder mounted on the stand, a ratchet wheel fixed with respect to the filling feeder, a vertically swinging transferrer connected with the stand and having a rear, lateral arm, a vertically swinging lever fulcrumed at an intermediate point of its length on the stand and having a rear, slotted arm receiving the rear lateral arm of the transferrer and also having a slotted head on its forward arm, a bolt adjustably fixed in the slot of said head, a screw bearing in the head and arranged to prevent backward movement of said bolt, a pawl loosely mounted on the bolt and arranged to engage the teeth of the ratchet wheel, and a coiled spring surrounding the bolt and having one arm engaging the lever and another arm engaging the pawl.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

BELONIE JANELLE.

Witnesses:
LUCY AUCTIL,
J. A. BOIVIN.