

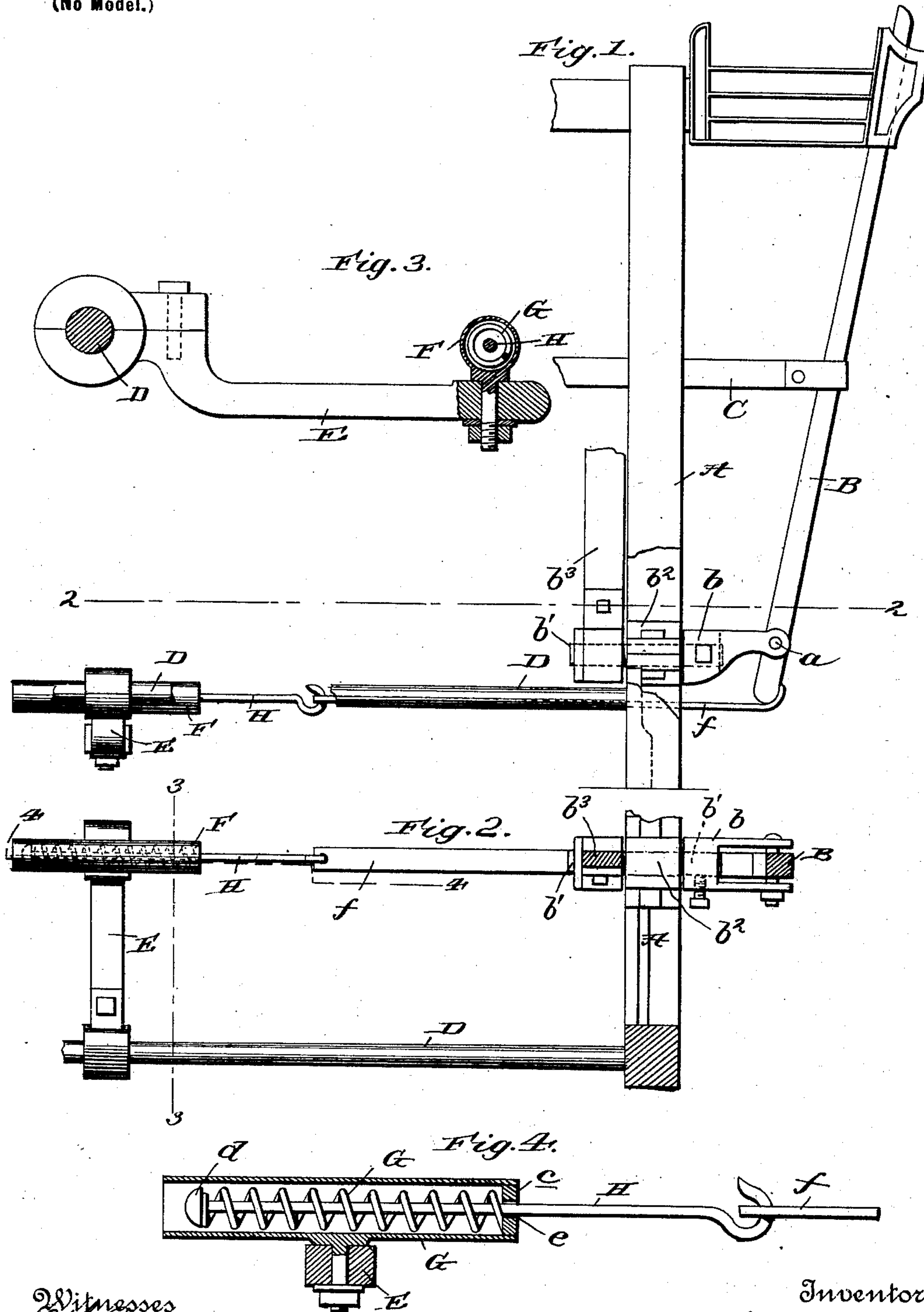
No. 716,379.

Patented Dec. 23, 1902.

A. CHEVRETTE.
SHUTTLE MOTION FOR LOOMS.

(Application filed Dec. 7, 1901.)

(No Model.)



Witnesses
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UNITED STATES PATENT OFFICE.

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SHUTTLE-MOTION FOR LOOMS.

SPECIFICATION forming part of Letters Patent No. 716,379, dated December 23, 1902.

Application filed December 7, 1901. Serial No. 85,025. (No model.)

To all whom it may concern:

Be it known that I, ALEXANDER CHEVRETTE, a citizen of the United States, residing at Woonsocket, in the county of Providence and State of Rhode Island, have invented new and useful Improvements in Shuttle-Motions for Looms, of which the following is a specification.

My invention relates to looms, more especially drop-box looms for fancy weaving, and has for its general object to provide improved means for returning the picker-staff to the heel of the lay subsequent to the throw of the shuttle and holding it in such position and against rebound.

With the foregoing in mind the invention will be fully understood from the following description and claims when taken in conjunction with the accompanying drawings, in which—

Figure 1 is a view of so much of a drop-box loom as is necessary to illustrate my improvements; Fig. 2, a horizontal section taken in the plane of line 2 2 of Fig. 1; Fig. 3, an enlarged transverse section taken in the plane of line 3 3 of Fig. 2, and Fig. 4 an enlarged detail section taken in the plane of line 4 4 of Fig. 2.

Similar letters of reference designate corresponding parts in all of the several views of the drawings, referring to which—

A is a portion of the main frame of an ordinary drop-box loom; B, the picker-staff; C, the usual lug-strap connected to the picker-staff; D, a girth forming part of the frame, and E a bracket-arm which constitutes the preferred support of my improvements and is clamped or otherwise fixed on the girth and disposed at right angles thereto. The picker-staff is fulcrumed at *a* on a bracket *b*, fixed on one end of a rock-shaft *b'*, which shaft is journaled in a bearing *b²* on the frame and has fixed to its opposite end the lay-arm *b³*. This manner of mounting the picker-staff enables the same to conform to the movement of the lay. I desire it understood, however, that the picker-staff may be mounted in any other manner that will permit it to conform to the movement of the lay without departing from the scope of my invention.

Arranged on and connected to the support

or arm E, preferably in a pivoted manner, as shown in Figs. 3 and 4, is a spring-holder F, preferably a case cylindrical in form, in which is contained a coiled spring G. This spring is interposed between the forward end wall *c* of the case or any other suitable abutment thereof and an abutment or enlargement *d* on a movable device, such as a rod H, and the said rod extends loosely through an aperture *e* in the wall *c* and is connected by a leather strap *f* or other suitable means to the lower arm of the picker-staff. By virtue of this construction it will be observed that incident to the rocking of the picker-staff to throw the shuttle the spring G will be compressed and in consequence will operate immediately subsequent to such throw to promptly and positively return the picker-staff to the heel of the lay and hold it against rebound in such position where it will be out of the way of and permit free movement of the drop-boxes. The spring arranged to be compressed incident to the throw of the shuttle and adapted to expand immediately subsequent to such throw and return the picker-staff to its initial position against the heel of the lay is advantageous in that its tension is uniform and it is easy on the strap *f* and the picker-motion. The arrangement of said spring in the case F removes the liability of it gathering lint and precludes its being entangled or caught in other parts of the loom, and the pivoted connection of the case to the support in such manner as to enable the case to swing horizontally enables the spring to accommodate itself to and keep in line with the sway of the lay. These will be appreciated as important advantages when it is remembered that the long stretching spring ordinarily hung under a loom for the purpose of returning the picker-staff to its initial position loses its elasticity after a short period of use and with every movement of the lay swings around on the floor under the loom, gathers lint, &c., and frequently becomes entangled with other parts of the loom.

I have entered into a detailed description of the construction and relative arrangement of parts embraced in the present and preferred embodiment of my invention in order to impart a full, clear, and exact understanding of the same. I do not desire, however,

to be understood as confining myself to such specific construction and arrangement of parts, as such changes or modifications may be made in practice as fairly fall within the scope of my invention.

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

1. The combination with the picker-staff of a loom; of a rod connected and movable with the picker-staff, a suitable support, a spring engaging the movable rod, and a spring-holder; said holder being movably mounted on the support whereby it and the spring are enabled to accommodate themselves to the movements of the lay of the loom.

2. The combination with the picker-staff of a loom; of a rod connected and movable with the picker-staff, and having an abutment, a suitable support, a spring-holder movably mounted on the support and having an abutment, and a spring carried by the holder and interposed between the abutment of the rod and the abutment of the spring-holder; the latter abutment being located between the abutment of the rod and the picker-staff.

3. The combination with the picker-staff of a loom; of a rod connected and movable with the picker-staff, a suitable support, a case

movably mounted on said support, and a spring contained in the case and engaging the said movable rod.

4. The combination with the picker-staff of a loom; of a rod connected and movable with the picker-staff, and having an abutment, a support, a case movably mounted on the support and receiving the movable rod, said case also having an abutment and a spring contained in the case and interposed between the abutment of the movable rod and the abutment of the case.

5. The combination with the picker-staff of a loom; of a rod having an abutment, a flexible connection between said rod and the staff, a suitable support, a case pivotally mounted on the support and receiving the rod, said case having an abutment, and a coiled spring surrounding the rod within the case and interposed between the abutment on the rod and the abutment of the case.

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

ALEXANDER CHEVRETTE.

Witnesses:

HENRY J. WHITAKER,
GEO. W. SPAULDING.