2 Sheets--Sheet 1.

G. CROMPTON.

Loom.

No. 161,595. Patented April 6, 1875.

Fig 1

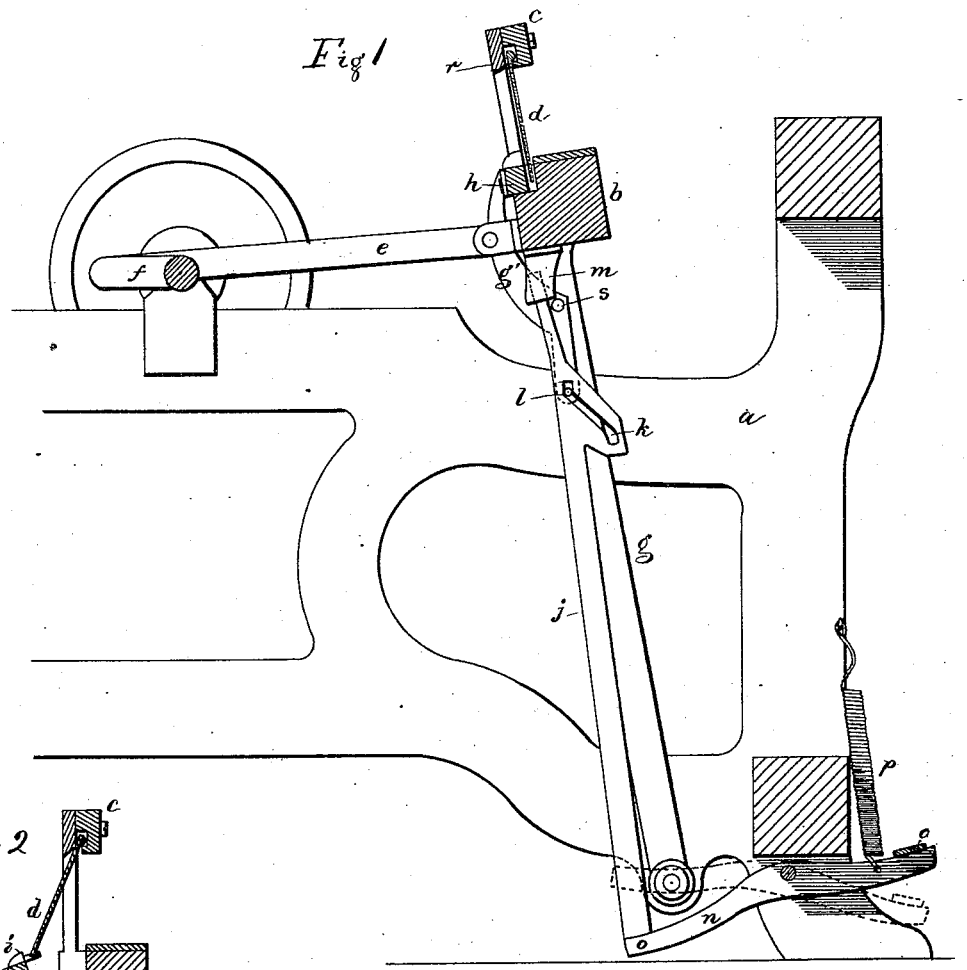
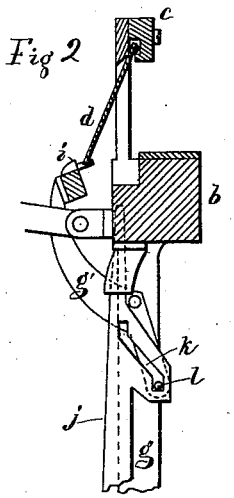


Fig 2



Witnesses.

L. H. Latimer,

Wm Pratt.

Inventor.

George Crompton

PER Crosby & Gregory

ATTYS.

2 Sheets--Sheet 2.

G. CROMPTON.

Loom.

No. 161,595. Patented April 6, 1875.

Fig 3.

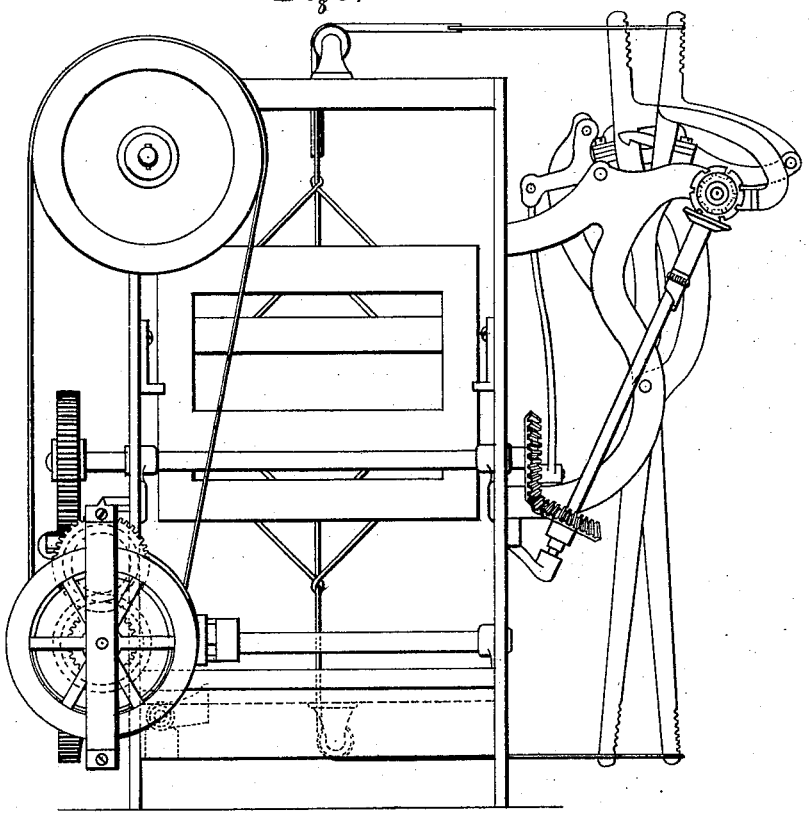
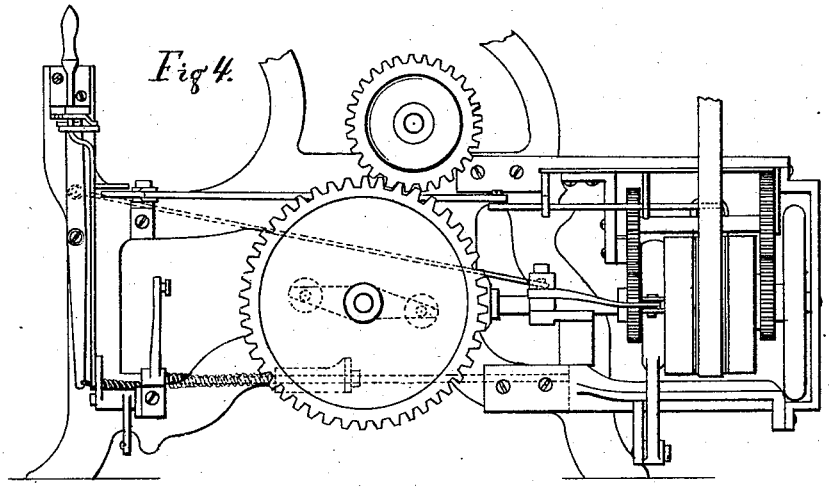


Fig 4.



Witnesses.
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Inventor.
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PER Crosby Gregory Atty's.

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UNITED STATES PATENT OFFICE.

GEORGE CROMPTON, OF WORCESTER, MASSACHUSETTS.

IMPROVEMENT IN LOOMS.

Specification forming part of Letters Patent No. **161,595**, dated April 6, 1875; application filed February 3, 1875.

To all whom it may concern:

Be it known that I, GEORGE CROMPTON, of Worcester, in the county of Worcester and State of Massachusetts, have invented an Improvement in Looms, of which the following is a specification:

My invention relates to improvements in looms, and is intended as an improvement on, or addition to, a loom of the class shown in United States Letters Patent No. 140,894, heretofore granted to me. In said patented loom the shaft that connects the pattern mechanism and the lay-actuating shaft is provided with a clutch, so that the pattern cylinder or mechanism may be reversed when desired, or turned independently of the remaining portions of the loom. Said patent also shows mechanism for reversing the loom and actuating the shedding mechanism, to find the shed with a miss or broken pick, and when so reversed the picking mechanism is thrown out of action.

My present invention consists in a lay having a receding reed, and adapted to operate in connection with a loom substantially such as shown in said patent, or with a loom that may be reversed. When the loom is reversed the reed is thrown back, and prevented from beating up the filling, and the operator is enabled to more readily get access to the shed, and see when the proper shed has been reached, than if the reed were in its usual working position. The reed may also be held back during the regular forward motion of the lay.

Figure 1 represents so much of a loom as is necessary to show my present improvement with relation to the lay and reed. Fig. 2 is a detail view thereof. Fig. 3 is an end view of the loom represented in Patent No. 140,894, and Fig. 4 is a side view thereof.

Figs. 3 and 4 are introduced to show the loom to which I prefer to apply my invention, as shown in Figs. 1 and 2. I do not, however, consider it necessary to describe such parts in detail, as they are fully described in Patent No. 140,894, to which reference may be had.

In the drawing, *a* is the loom-frame; *b*, the lay; *e*, the link connecting it with the crank or lay shaft; *f* and *g* represent the swords of the lay, all of any ordinary construction. The reed *d*, of any suitable construction, is connected with the reed-cap *c*, so that it may turn thereon; in this instance, the connection is made by means of an enlarged rib, *r*, at the top of the reed, that enters a groove in the lay-cap. One end of the reed *d* is engaged by a forked or other connection, *i*, projecting from a bar, *h*, carried by the reed-actuating arms *g'*, pivoted at *s* to the swords *g* of the lay, and provided with pins or projections *l*, that enter slots *k* in slide-pieces *j*, connected with a treadle or levers, *n*, connected with the loom-frame, and controlled by the operator. The levers *n* are joined by means of a strip, *o*, so as to serve as a foot-piece for the operator to depress the forward ends of the levers and elevate the slides *j*, they being guided by brackets *m*. As these slides are raised, their slots *k*, acting on the pins *l*, turn the reed-actuating arms *g'* backward, and move the reed to the position shown at Fig. 2. The operator moves the reed back in this way when the loom is to be reversed or turned back to find the proper shed, or that in which the weft was broken, or in which there was a mispick or other imperfection. The lay continues to move as the loom is reversed, but, during such reverse movement, the reed is held back, as shown in Fig. 2, and it will be readily seen that the reed cannot strike the weft or interfere with the operator when picking out the imperfect weft. During the reverse movement of the loom the picker-actuating mechanism (shown in Figs. 3 and 4, and as described in Patent No. 140,894) is thrown out of operation and the picker-staffs are inactive.

My invention may be applied to other looms than that described, and the reed may be held back while the loom moves regularly forward, and other devices than those shown might be employed to move and hold back the reed while the loom is in operation and the lay moving, which is the gist of my invention, without departing from my invention. The arms *g'* might be moved by a system of links instead of by the slotted slide-pieces, and the parts may be operated by the hand instead of by the foot of the operator. The spring *p* holds the ends of the levers *n* elevated. When the slide *j* is in the position shown in Fig. 2,

the lower straight end of the slot *k* locks or holds the arm *g'* in the position shown, and keeps the reed back.

In the patent referred to a lay is not shown, and this lay or reed may be attached to a loom, as described in such patent, by mounting the lay-swords in the usual way, and connecting the links *e* with the lay-shaft marked *o* in such patent.

It will be noticed that the advantages arising from the use of the receding reed, or by holding back the reed during the movement of the lay, are gained when the loom runs regularly forward, as well as when the loom is reversed, and it will be understood that I do not limit my invention to the use with only the loom described in the patent before referred to.

Having described my invention, I claim—

1. The combination, with the lay and reed, of mechanism adapted to hold the reed back during the operation of the loom, substantially as described.

2. The combination, with the lay and reed, of reed-actuating arms, slides, and levers, adapted to operate substantially as described.

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

GEO. CROMPTON.

Witnesses:
J. A. WARE,
J. B. SYME.