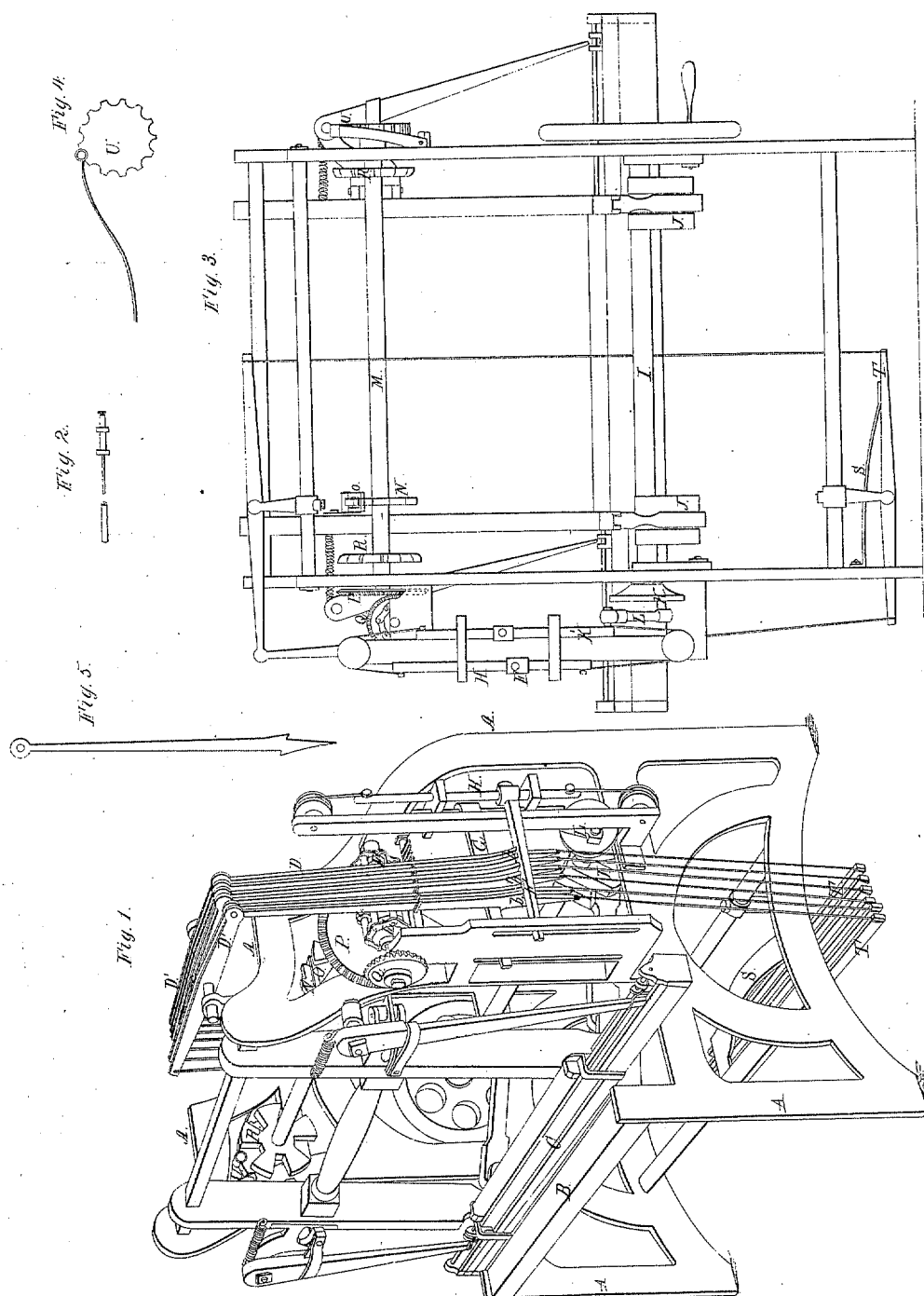


W. CROMPTONS.
FANCY POWER LOOM.

No. 491.

Patented Nov. 25, 1837.



UNITED STATES PATENT OFFICE.

WILLIAM CROMPTON, OF TAUNTON, MASSACHUSETTS.

FIGURE POWER-LOOM.

Specification of Letters Patent No. 491, dated November 25, 1837.

To all whom it may concern:

Be it known that I, WILLIAM CROMPTON, of Taunton, in the county of Bristol and State of Massachusetts, have invented certain Improvements in figure, or fancy power-looms, by means of which improvements the power of extending and varying the figure is greatly increased, while the required changes therein are much facilitated; and I do hereby declare that the following is a full and exact description thereof.

Figure 1 is a perspective view of the whole machine, A, A, being the frame B, the breast beam and C the lathe; together with which other parts of the loom are represented, which do not need description, not being new.

D, D, are the jacks which operate the harness, of which, with their corresponding levers, D', D', there may be any desired numbers.

E, E, is the apparatus by which the jacks are thrown out. In the drawing it is represented as in the form of a cylinder, consisting of six bolts, or rods, running from end to end, and having on them shifting rollers which project from them, and come into contact with the jacks throwing them out as required by the pattern, one of these shifting rollers is seen at *a*. Fig. 2 shows one of these bolts with the rollers on it, *a, a*, being the rollers which are slid on to the bolt, and are retained in their places by tubes placed between them, which also slide on to the bolts and are made of such length as are required to keep the rollers in their proper places. When a larger number of changes are required than can be obtained from placing the bolts, with their rollers, around a single cylinder, they are so arranged as to form an endless chain of bolts and rollers, which pass around a cylinder situated like that represented, and also around another placed below it, as otherwise conveniently situated.

The only office performed by the rollers above described is the throwing out of the jacks, the lifting and depressing being effected by an apparatus for that especial purpose, to be now described.

F, is a lifting rod, which extends across the jacks D, D, and catches under the offset, or projection, *b, b*, upon them when they are thrown out, and as it rises, raises them and their levers.

G, is a similar rod for carrying those

jacks down which are not raised by the first rod.

H, is the sliding bar to which the rod F is attached, the operation of which will be best seen in Fig. 3, which is a back view of the loom. In this figure, I is the driving shaft, the cranks J, J, of which work the lathe, K, is a crank for working the lifting and depressing rods of the jacks. This crank is connected to the slide bar K' by means of the shackle bar L, which it raises and lowers, as it does also the sliding bar H, carrying the lifting rod F, there being two pulleys to communicate motion from one to the other as seen in the drawing. The wrist of the crank K may be made to shift.

The shaft M, regulates the action of the shuttle and also that of the apparatus which throws out the jacks, N, is a ratchet wheel fixed upon the shaft, and O, is a stirrup or draw catch, which is jointed on to the upper end of the lathe, and as this is made to vibrate by the cranks J, J, the stirrup catches a new tooth on the ratchet wheel, and carries the shaft M, to the required distance.

The bevel wheel P, Fig. 1, is on the end of this shaft and into this gears the small bevel wheel Q, upon the shaft of the roller cylinder, and it will be seen therefore that this cylinder may have the proper motion communicated to it at every beat of the lathe. The two notched wheels R, R, on the shaft M, are for working the pick and throwing the shuttle. As the lathe vibrates, the projecting part of one of these wheels comes into contact with a bell crank which throws the pick, as in some other looms, while at the opposite end one of the notches clears the crank, and so on alternately. The spring S, which presses upon the lower levers T, T, serves to bring them regularly in place. On the end of the shaft M, there is a check wheel U, having as many depressions on its periphery as there are teeth on the ratchet wheel, into which depressions the curved end of a spring passes to hold the shaft steady during the intervals of motion.

Fig. 4 is an end view of this check wheel and spring and Fig. 5 one of the jacks with its offsets for lifting and depressing.

What I claim as my invention, and wish to secure by Letters Patent is—

1. The entire manner of constructing and

combining the apparatus for working the
jacks as herein described, consisting essen-
tially of the lifting and depressing rods; the
rods with rollers for throwing out the jacks,
5 arranged upon a cylinder or otherwise, the
lifting rods, and the upper shaft with its con-
nection by gearing with the roller cylinder.
2. I also claim the two notched wheels
upon the upper shaft as constructed, com-
10 bined, and used, for working the pick.
WILLIAM CROMPTON.

ten dollars into the Treasury of the United
States, agreeably to the requirements of the
act of Congress in that case made and pro-
vided.

M. A. FURBUSH.
GEORGE CROMPTON.

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Witness:

ERASTUS WORTHINGTON.

Disclaimers.

To the Commissioner of Patents:

The petition of M. A. FURBUSH and GEORGE CROMPTON, both of Worcester, in the county of Worcester and Commonwealth of Massachusetts, respectfully represents that they have, by assignment duly recorded in the Patent Office, become the owners of the extended term of Letters Patent granted 25th of November, 1837, to WILLIAM CROMPTON for Improvements in Figure or Fancy Power-Looms; that they have reason to believe that through inadvertence and mistake, the specification and claim of said Letters Patent are too broad, including that of which the said patentee was not the first inventor.

Your petitioners therefore hereby enter their disclaimer to that part of the aforementioned specification which commences "The modes of elevating and depressing the lifter" and ends "true and essential principle of my invention is preserved," being the fourth paragraph from the end of said specification, and also enter their disclaimer to the first, second, and fourth claims of said patent, which disclaimer is to operate to the extent of the interest in said Letters Patent vested in your petitioners, who have paid

ten dollars into the Treasury of the United States, agreeably to the requirements of the act of Congress in that case made and provided.

M. A. FURBUSH.
GEORGE CROMPTON.

Witness:

ERASTUS WORTHINGTON.

To the Commissioner of Patents:

The petition of MERRILL A. FURBUSH and GEORGE CROMPTON, both of Worcester, in the county of Worcester and Commonwealth of Massachusetts, respectfully represents that they have by assignment duly recorded in the Patent Office become the owners of the extended term of Letters Patent granted 25 November, 1837, to WILLIAM CROMPTON for Improvements in Figure or Fancy Power-Looms; that they have reason to believe that through inadvertence and mistake the specification and claim of said Letters Patent are too broad, including that of which the said patentee was not the first inventor.

Your petitioners therefore hereby enter their disclaimer to that part of the aforementioned specification which commences "The position I give the jacks" and ends "principle of my invention," being the last sentence of the next to the last paragraph thereof, and also to the fifth, seventh, and eighth claims of said patent, which disclaimer is to operate to the extent of the interest in said Letters Patent vested in your petitioners, who have paid ten dollars into the Treasury of the United States agreeably to the requirements of the act of Congress in that case made and provided.

Worcester 22nd August, 1857.

M. A. FURBUSH.
GEORGE CROMPTON.

Witnesses:

ROULAND PERRY,
OSGOOD PLUMMER.