

Sheet 1 of 2 Sheets.

G. Crompton.
Stop Motion for Loom.

No. 86,735.

Patented Feb. 9, 1869.

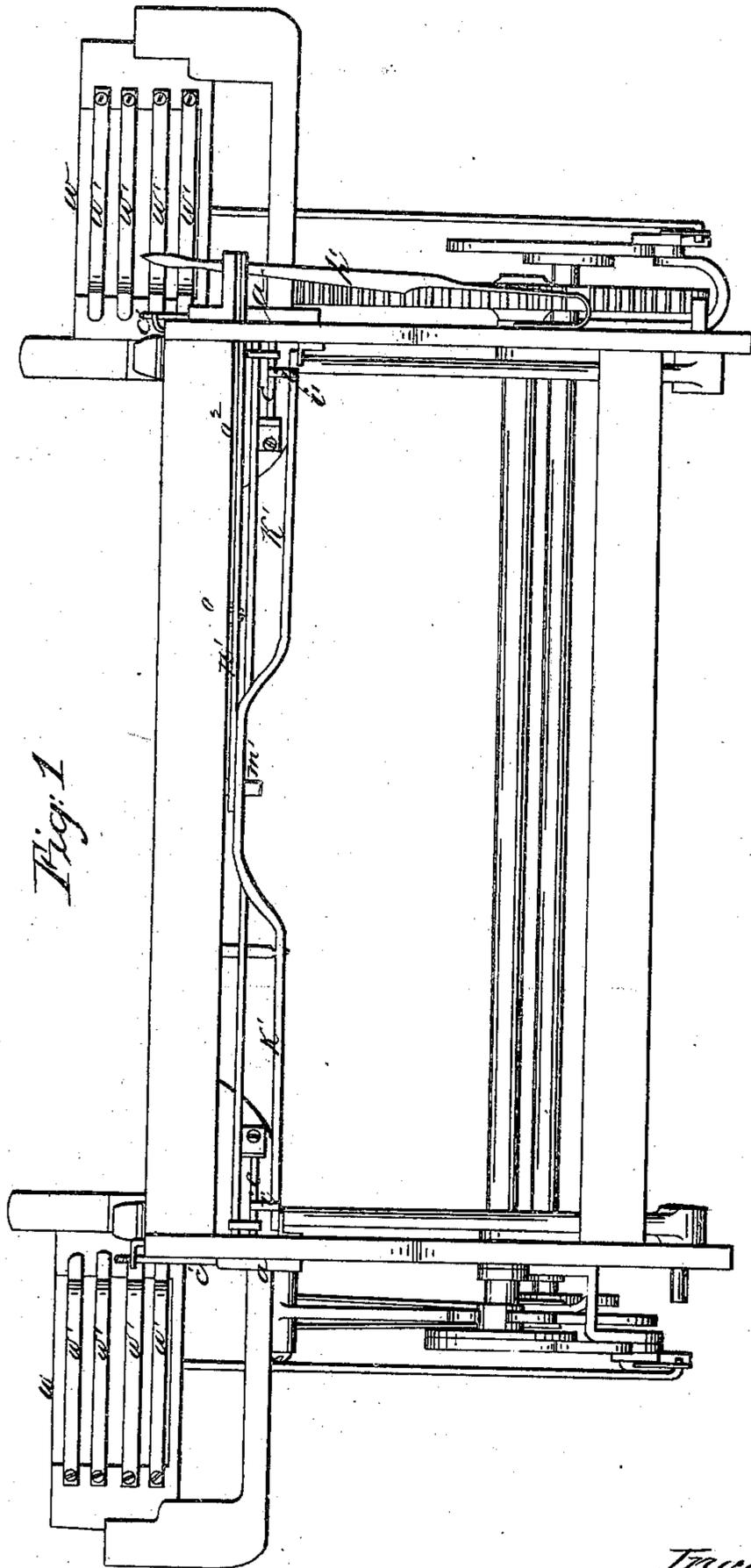


Fig. 1

Witnesses
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A. Brewer

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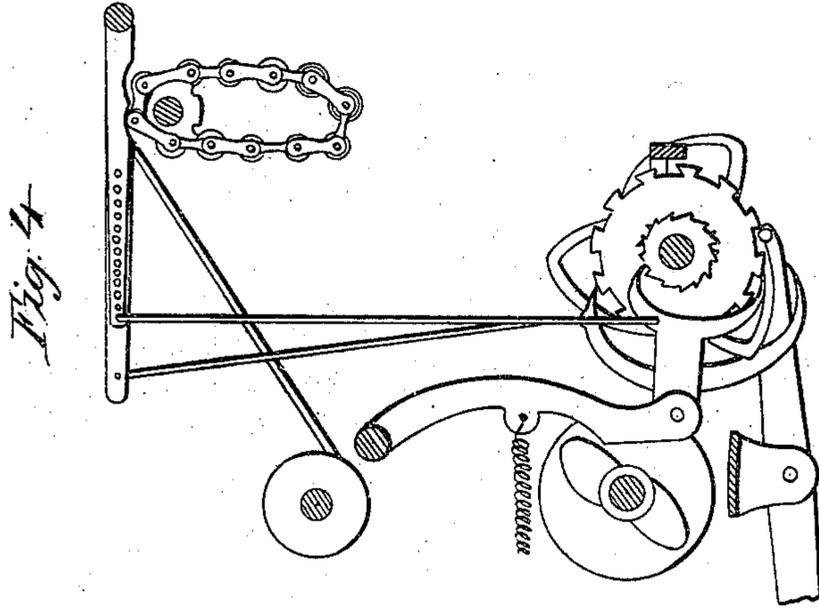


Fig. 4

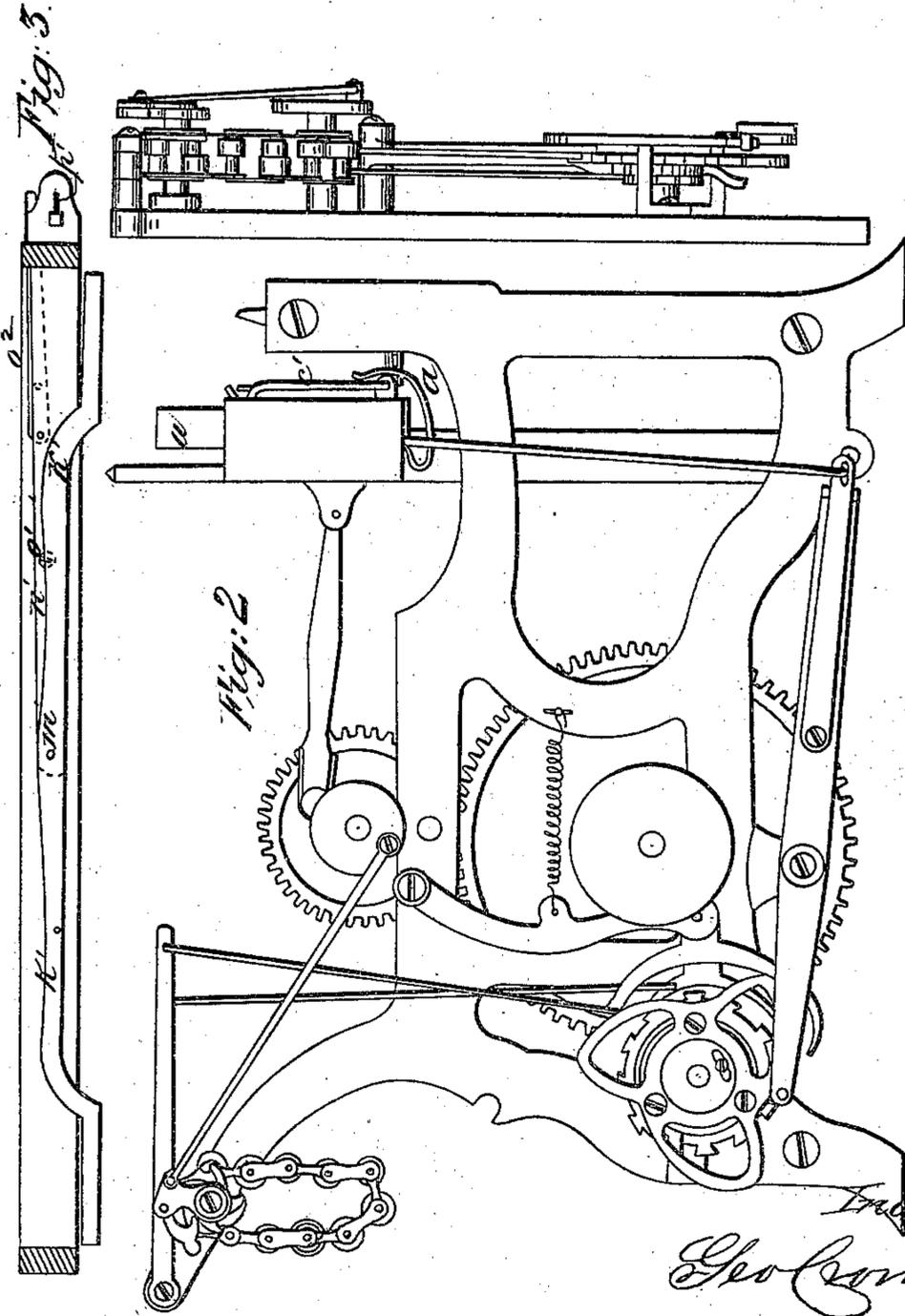


Fig. 3

Fig. 5

Fig. 2

Witnesses
J. Ward
L. Brown

Inventor
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United States Patent Office.

GEORGE CROMPTON, OF WORCESTER, MASSACHUSETTS.

Letters Patent No. 86,735, dated February 9, 1869.

IMPROVEMENT IN STOPPING-MECHANISM FOR LOOMS.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, GEORGE CROMPTON, of the city of Worcester, in the State of Massachusetts, have invented certain new and useful Mechanism for Stopping the Motion of Looms, when two shuttle-boxes, upon opposite sides of the race, and opposite each other, both contain shuttles; and that the following, taken in connection with the drawings, is a full, clear, and exact description thereof.

In the drawings—

Figure 1 is a front elevation of a loom containing my improvements;

Figure 2 is a side elevation thereof;

Figure 3, an end elevation of shuttle-box-shifting mechanism;

Figure 4, a front elevation of parts thereof; and

Figure 5, a plan, looking upward, of the throwing-off levers.

The improvements in mechanism for shifting shuttle-boxes, represented in these drawings, are described in an application for a patent now pending; and in this description, such parts only of the drawings are referred to, as are necessary to elucidate the invention herein specified.

This invention is of use only in looms where there are two series of shuttle-boxes, upon opposite sides of the lathe, both of which are shifted to bring different shuttles opposite the race, but the invention is applicable to series of boxes shifted in any known or proper manner.

The object of the apparatus invented by me, is to stop the loom whenever two shuttles happen to be opposite each other, on the line or level of the race, just at or before the time that the picker strikes the shuttle.

Owing to careless boxing, or carelessness in the adjustment of the box-shifting mechanism, shuttles do sometimes occupy such relative positions.

In the drawings, two series of shuttle-boxes, upon opposite sides of the lathe, are represented at *w w*.

These boxes, in the form in which my invention is represented in the drawings, slide in proper guides attached to the lathe.

Each box is provided with a spring-binder, *w' w'*, and in front of each series of boxes is a rock-shaft arm, *c'*, mounted on a short shaft, *c*, attached to the lathe.

To the same shaft is attached an arm, *i'*, projecting outward from the lathe, toward the front of the loom.

There are two shafts, *e*, each separate and distinct from the other, and on opposite ends of the lathe, and each shaft has its arm, *i'*, which is hooked at its extremity, like the keeper of a common door-latch, turned upside down.

The arms *c' c'* bear against the binders, at or about the level of the race, being curved (see fig. 2) for that purpose, and they are forced to bear against the binders by springs *a a*, attached to the lathe, and pressing upon the arms *c' c'*.

The binders slide in contact with the arms, when either series of boxes moves, and whenever a binder is forced out by a shuttle resting in its box, then the arms *c' c'* are forced outward, and the latches on the arms *i'* downward, provided the box of which the binder is forced out happens to be opposite the race.

When the series of boxes come to rest, prior to the shooting of a shuttle, then the shuttle about to be shot from either side, will force out a binder, and depress a latch on one side or the other of the lathe; but when two shuttles, on opposite sides of the loom, are opposite each other, and both on the level of the race, then both latches will be depressed.

In the framing of the loom, and in front of the lathe, is pivoted a lever, *n'*, free to swing or turn on its pivot, or fulcrum-pin, *o'*.

A long lever, *k k*, is pivoted, at *m*, to one end of the lever *n'*, and this last lever is jointed to another lever, *o'*, which extends out through the frame, and rests against the shipping-lever *p'*, the gist and object of the whole of the arrangement of levers being that the shipper-lever shall be thrown out of its notch, so as to stop the loom when the long lever *k* is moved bodily toward the lathe, and that the shipper-lever shall not be moved when the long lever *k* is merely oscillated on its centre.

When one shuttle is opposite the race, and the box opposite it, on the same level, is empty to receive it, then one latch will be depressed, catch over the one end of the long lever *k*, oscillate it as the lathe beats up, and have no effect on the shipper; but when two shuttles are in boxes opposite each other, and both on the race-level, then both latches will be depressed, and the long lever will be moved bodily toward the lathe, and the loom be stopped.

I claim as of my own invention—

The apparatus for shifting the shipper-lever, consisting of rock-shafts and arms mounted on the lathe, and a system of levers mounted upon the loom-frame, constructed and acting substantially in the manner specified.

GEO. CROMPTON.

Witnesses:

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GEO. B. PEARSON.