

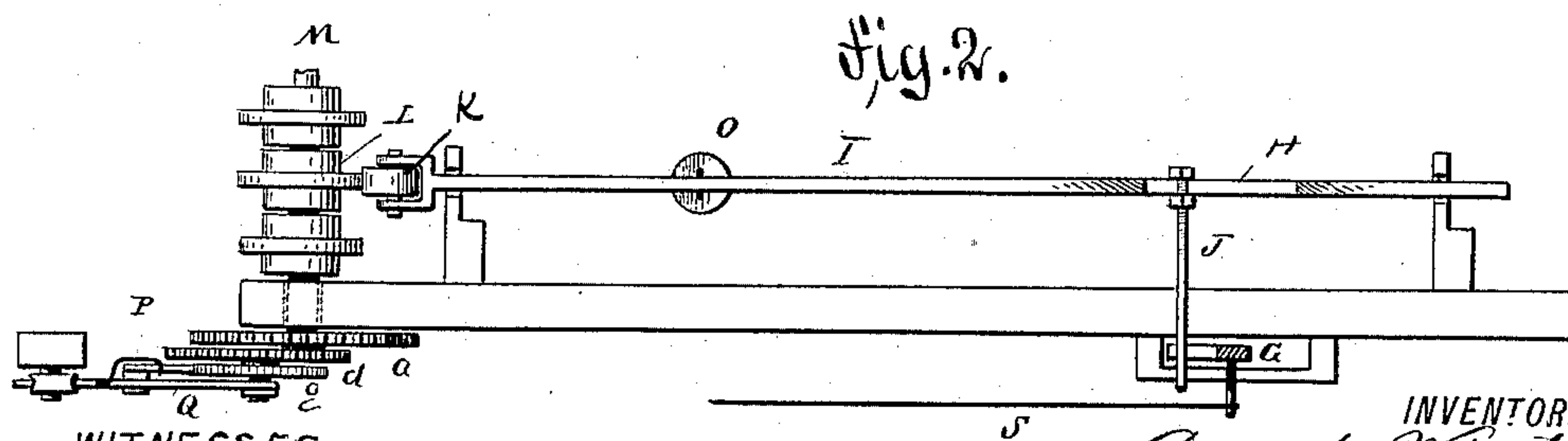
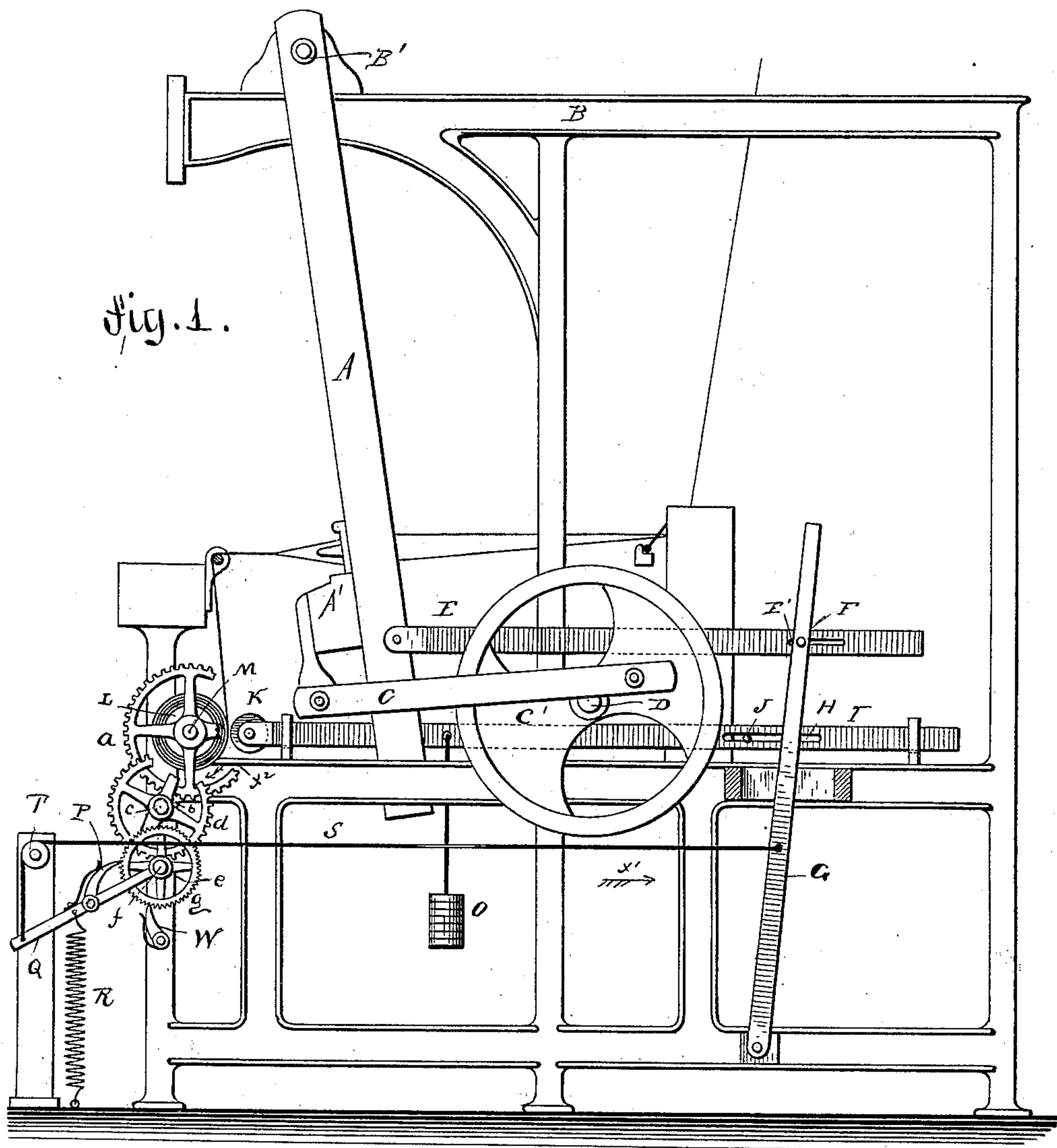
(No Model.)

A. WIERTZ & C. HAUSMANN.

TAKE-UP MECHANISM FOR LOOMS.

No. 392,086.

Patented Oct. 30, 1888.



WITNESSES

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TAKE-UP MECHANISM FOR LOOMS.

SPECIFICATION forming part of Letters Patent No. 392,086, dated October 30, 1888.

Application filed February 3, 1888. Serial No. 262,859. (No model.)

To all whom it may concern:

Be it known that we, AUGUST WIERTZ and CARL HAUSMANN, of the city of New York, in the county and State of New York, have invented certain new and useful Improvements in Take-Up Mechanism for Looms, of which the following is a specification.

The object of our invention is to provide a new and improved attachment to looms for the purpose of automatically regulating and governing the distance the cloth-beam is rotated for each pick.

The invention consists in the construction and combination of parts and details, as will be fully described and set forth hereinafter, and then pointed out in the claims.

In the accompanying drawings, Figure 1 is a side view of a loom provided with our improved attachment, parts being broken out and others being in section. Fig. 2 is a sectional plan view of part of the same.

Similar letters of reference indicate corresponding parts.

The batten A, carrying the shuttle-race A', both of the usual construction, is pivoted to the loom-frame B at B' and is connected by the connecting-rod C with the fly-wheel C' of the driven shaft D of the loom. The bar E is pivoted at one end to the batten, and at the other end it is provided with the longitudinal slot E', through which a pin, F, passes freely from the upper end of a rocking lever, G, pivoted at its lower end to the frame of the loom. The bar I is guided to reciprocate horizontally, and is provided at one end with the longitudinal slot H, in which the pin J is held adjustably by a nut or other suitable device—that is, in such a manner that it can be moved toward either end of the bar. A roller, K, is pivoted in that end of the bar I opposite the one provided with the slot, said roller being adjacent to one of the ribbon-pulleys L on the cloth-beam M. A weight, O, is suspended by means of a cord from the bar I for the purpose of producing friction to prevent the bar from moving too freely.

On the end of the cloth-beam M the cog-wheel a is fixed, and engages the pinion b on the shaft c, carrying the cog-wheel d, engaged with the pinion e on the shaft f, carrying the ratchet-wheel g, with which the spring-actuated pawl P on the rocking lever Q engages.

A spring, R, draws the rocking lever Q downward, and the swinging end of said lever is connected by the cord S, passed over the pulley T, with the rocking lever G.

W is the check-pawl for the ratchet-wheel.

As shown in Fig. 2, the pin J projects such a distance from the bar I that the lever G can come in contact with it.

We have shown our attachment applied to a ribbon-loom; but it is evident that it can be applied on any other loom as well.

The operation is as follows: The pin J is adjusted in the slot H of the bar I according to the number of picks desired to the inch. For each pick the lever G is swung once, and during one part of its stroke it pulls the cord S in the direction of the arrow x', whereby the lever Q is swung up and, by means of the spring-actuated pawl and the gearing, rotates the cloth-beam slightly in the direction of the arrow x'', whereby a certain quantity of fabric is wound on the cloth-beam or pulleys thereon. The lever G can only swing in the inverse direction of the arrow x' until it strikes the pin J, which checks it. The bar E continues to move in the inverse direction of the arrow x', the pin F moving freely in the slot E'. As the diameter of the roll of fabric on the cloth-beam, or the pulleys L thereof, increases, it pushes the roller K and the bar I in the direction of the arrow x', and thus the pin J is gradually moved nearer the lever G and gradually shortens the swing of the same in the inverse direction of the arrow x'. As the distance of the swing of the lever G in the inverse direction of the arrow x' decreases, the swing of the pawl-lever Q decreases, and thus the pawl P grips less teeth of the ratchet-wheel g and the cloth-beam is rotated less. The increase in the diameter of the roll of fabric on the cloth-beam thus automatically shortens the distance of rotation of the cloth-beam for each pick.

Having thus described our invention, we claim as new and desire to secure by Letters Patent—

1. The combination, with a loom-frame, batten, and cloth-beam, of the rocking lever G, connected with the batten, the bar I, having one end adjacent to the cloth-beam and pro-

vided in its opposite end with the slot H, the
pin J in the slot H, the pawl-lever Q, the cord
S, connecting said pawl-lever with the rock-
ing lever G, the ratchet-wheel *g*, engaged with
5 the pawl on the pawl-lever, and gearing for
transmitting motion from the ratchet-wheel *g*
to the cloth-beam, substantially as herein
shown and described.

2. The combination, with a loom-frame, bat-
10 ten, and cloth-beam, of the rocking lever G,
having the pin F, the connecting-bar E, hav-
ing the slot E', the bar *l*, provided at one end
with the slot H, the pin J in said slot, the
roller K on the other end of the bar *l*, which
15 roller K is adjacent to the cloth-beam, the

pawl-lever Q, the cord S, connecting the pawl-
lever with the rocking lever G, the ratchet-
wheel *g*, with which the pawl on the lever Q
engages, and gearing for transmitting motion
from the ratchet-wheel to the cloth-beam, sub- 2c
stantially as herein shown and described.

In testimony that we claim the foregoing as
our invention we have signed our names in
presence of two subscribing witnesses.

AUGUST WIERTZ.
CARL HAUSMANN.

Witnesses:

OSCAR F. GUNZ,
JOHN A. STRALEY.