

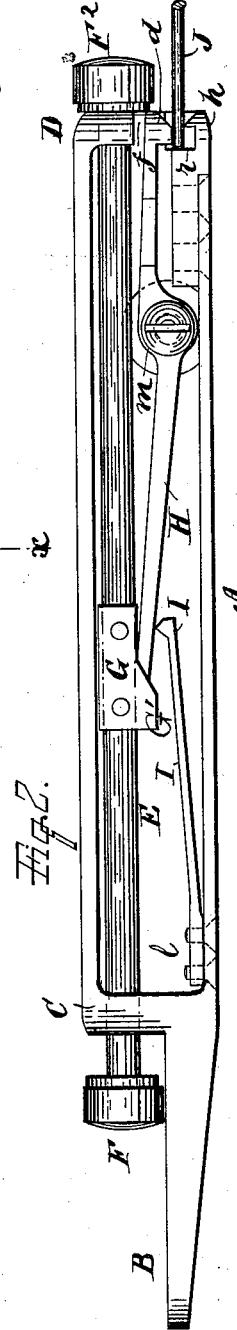
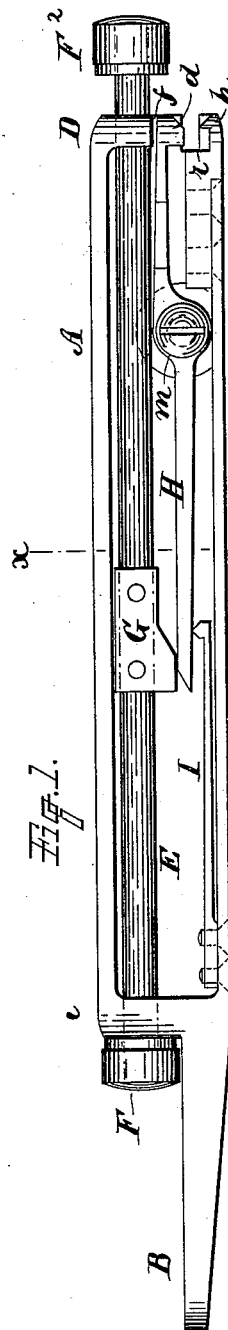
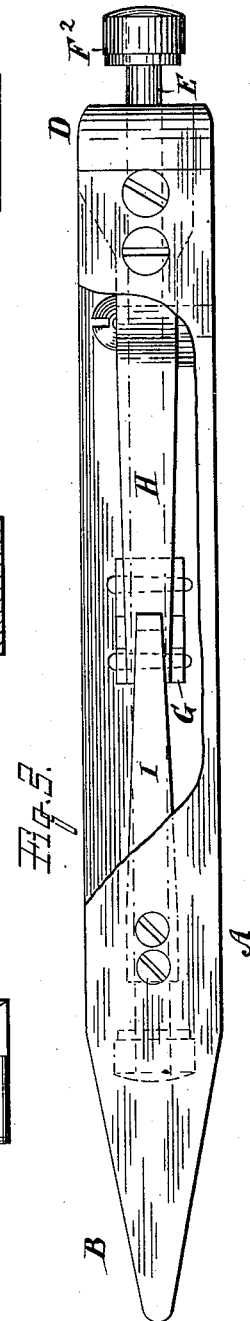
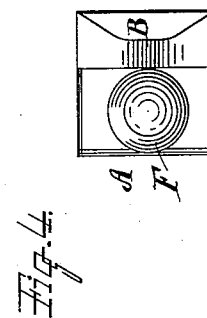
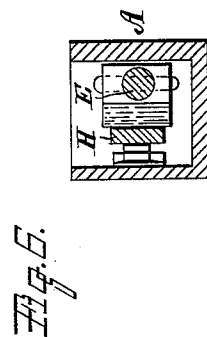
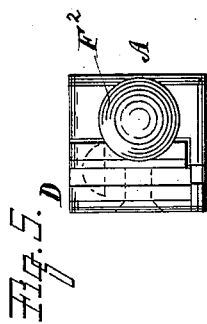
(No Model.)

L. W. NEWTON.

FILLING CARRIER FOR LOOMS FOR WEAVING WIRE.

No. 345,167.

Patented July 6, 1886.



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UNITED STATES PATENT OFFICE.

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FILLING-CARRIER FOR LOOMS FOR WEAVING WIRE.

SPECIFICATION forming part of Letters Patent No. 345,167, dated July 6, 1886.

Application filed June 21, 1884. Serial No. 135,633. (No model.)

To all whom it may concern:

Be it known that I, LEWIS W. NEWTON, of Clinton, in the county of Worcester, State of Massachusetts, have invented a certain new and useful Improvement in Filling-Carriers for Looms for Weaving Wire, of which the following is a description sufficiently full, clear, and exact to enable any person skilled in the art or science to which said invention appertains to make and use the same, reference being had to the accompanying drawings, forming a part of this specification, in which—

Figure 1 is a top plan view of my improved carrier, the jaws being represented as open; Fig. 2, a like view showing the jaws closed and the wire inserted; Fig. 3, a front elevation, a part of the front wall being represented as broken away to show the internal mechanism; Fig. 4, an elevation showing the end opposite that in which the jaws are disposed; Fig. 5, an elevation showing the end in which the jaws are disposed; and Fig. 6 a vertical transverse section taken on the dotted line *x x* in Fig. 1.

Like letters of reference indicate corresponding parts in the different figures of the drawings.

My invention relates to that class of filling-carriers which are employed in wire-weaving; and it consists in a novel construction and arrangement of the parts, as hereinafter more fully set forth and claimed, by which a simpler, cheaper, and more effective device of this character is produced than is now in ordinary use.

In weaving wire-cloth, more especially of the heavier grades, the filling-wires after being cut by suitable machinery into lengths or pieces corresponding with the width of the cloth, are taken in the hands of the weaver and inserted one at a time between the sheds of the warp-wires, thereby necessitating the exercise of great care on the part of the workman and the running of the loom at a very low speed.

My invention is designed to obviate these and other objections; and to that end I make use of means which will be readily understood by all conversant with such matters from the following explanation:

In the drawings, A represents the body of

the carrier, which consists of a rectangular box, open at the top, and provided at one end with the nose B.

Fitted to slide longitudinally in the body A, and supported by the ends C D, there is a rod, E, provided at its ends with the knobs F F², and carrying near its center the tappet-cam G, having a flat face, G'. A clamp-lever, H, is centrally pivoted to the bottom of the carrier at *m*, the outer end of said lever projecting into a vertical slot, *f*, formed in the end D, and being provided with the jaw *d*. A spring, I, is secured to the interior of the body A at *l*, the free end of the spring pressing against the inner end of the lever H and forcing it against the flat face of the cam G. A rigid jaw, *h*, is formed in the end D, which, in connection with the movable jaw *d* on the lever H, constitutes a clamp for grasping and holding the wire. A shoulder or stop, *r*, is formed in the interior of the carrier, against which the wire J strikes when it is inserted. The loom (not shown) in which the carrier is designed to be used is provided with a picker-staff at either end, which may be operated by any well-known means, and are adapted to strike the knobs F F², alternately, with percussive blows and throw the carrier from side to side of the loom after the manner of an ordinary weaving-shuttle.

In the use of my improvement, the carrier being at the left-hand side of the loom with its jaws open and the parts in the position shown in Fig. 1, the workman places the wire in suitable rests at the right-hand side of the loom, and in a position to be grasped by the jaws of the carrier. The picker-staff on the left-hand side of the loom now strikes the knob F and throws the carrier to the opposite side of the loom, where the knob F² is brought into contact with the picker-staff on the right-hand side of the loom, thereby stopping the advance of the rod E, and forcing it inwardly, disengaging the cam G from the lever H, and permitting the spring I to close the jaws onto the wire, the cam being so disposed on the rod that the jaws close and grasp the wire just before the knob F² reaches the end D. The wire being grasped by the jaws, as described, the picker-staff on the right-hand side of the loom is now caused to strike the knob

F², and the carrier, under the impulse of the blow, traverses across the loom between the sheds of the warp-wires, drawing the wire J after it, the parts being in the position shown in Fig. 2, and when it reaches the opposite side the knob F is brought into contact with the other picker-staff, thereby stopping the advance of the rod and causing the cam G to move the inner end of the lever H, open the jaws *d h*, and discharge the wire J in a manner which will be readily obvious without a more explicit description. After the wire thus discharged is woven into the fabric, the picker-staff on the left-hand side of the loom strikes the knob F, and throws the carrier back into its normal position at the right-hand side of the loom preparatory to repeating the operation. While the carrier is thus traversing back to its normal position with its jaws open, the inner end of the lever H rests upon the flat face G' of the cam, and the force of the spring I cannot close the jaws until the carrier reaches the proper position for grasping the

wire. The nose B is inclined or tapered, as best seen in Figs. 3 and 4, and is designed to thrust aside any loose wires which may be in the way of the carrier, thereby keeping its path clear.

Having thus explained my invention, what I claim is—

The body A, provided with the stationary jaw *h* and stop *r*, in combination with the lever H, pivoted in said body and provided with a jaw, *d*, opposite said stationary jaw, the spring I secured to said body and adapted to bear upon the rear arm of said lever for keeping the jaws normally closed, the rod E, provided with the knobs F F², and a cam, G, on said rod for automatically opening said jaws at one side of the loom, substantially as described.

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