R. M. GREEN.

MACHINE FOR BENDING CABLE LINKS.

No. 62,839. Patented Mar. 12, 1867.

Fig: 1

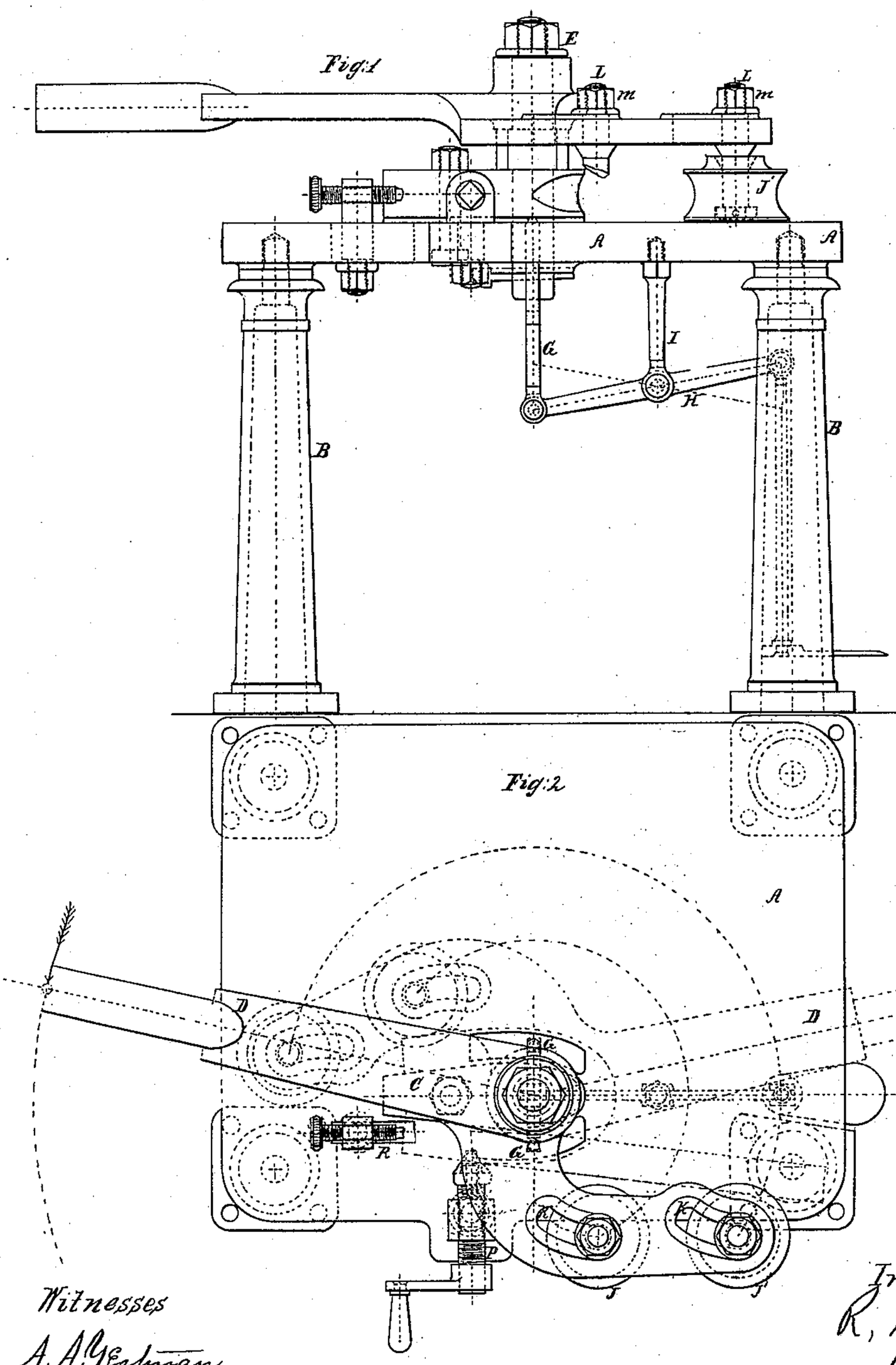

Fig: 2

Witnesses

A. A. Eatman

Ed. Stockbridge

Inventor

R. M. Green

per

Alexander F. Mason

Attorney

United States Patent Office.

R. M. GREEN, OF BALTIMORE, MARYLAND.

Letters Patent No. 62,839, *dated March* 12, 1867.

IMPROVED MACHINE FOR BENDING CABLE LINKS.

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, R. M. GREEN, of Baltimore, in the county of Baltimore, and in the State of Maryland, have invented certain new and useful improvements in Machines for Bending the Links of Chain Cables, and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

In the annexed drawing, making part of this specification, A represents a table, which is supported upon the legs B B. This table, with its legs, is made and secured in a very firm and substantial manner when ready for use. C represents a former, which is placed and secured upon the table A. This former is curved at one end, and is cut off square at the other, being a little thicker at the curved end than at the other, as is clearly seen is Figure 2. E represents a shaft, which stands in a vertical position, and which runs from above the table down through the former at its large end and extends through and below the table A. This shaft is secured beneath the table by a pin passing through it, or by a nut, or in any other convenient manner. D represents a lever, bent or formed in the shape represented in the drawings, and provided near one end with an opening, which enables it to be passed over the shaft E, which acts as a fulcrum for it. L L represent two short shafts, which pass through the short end of the lever D, and are provided on their lower ends with pulleys or small wheels, J J′, which are concave on their peripheries. The shafts L L pass through curved slots in the lever D, and are stationed at any desirable point in these slots by means of the nuts *m m* on their upper ends. P represents a set-screw passing through a suitable upright upon the table, which said set-screw is used for holding against the former the end of the link to be bent. A set-screw, R, may be used upon the table for regulating the position of the end of the link to be bent. G G represent two rods, the upper ends of which pass through the table from the under side on each side of and close to the former. These rods connect a short distance below the table, and are operated by means of a lever, H. The rods play up and down through the table, and are used for the purpose of throwing the link, after being bent, up from around the former. The lever H is suspended to the under side of the table to a pendent I, and may be operated by a rod and foot-piece, as seen fig. 1.

In using this machine, the metal for the links, which comes (in cases where large links are to be made) already cut off in proper lengths, is placed upon the table straight, as seen in blue line, fig. 2, with one end near the square end of the former, and this end is secured fast to said former by means of the set-screw P. The lever D, which at this stage of the operation stands as seen in black line, fig. 2, is then moved in the direction of the arrow. This brings the pulleys J J′ in contact with the metal for the link. The pulley J′ being the outer one, strikes the metal bar which forms the link near its outer end, and starts the bending process around the former. After the outer wheel has carried the bar partially around the inner wheel, a pulley carries it the balance of the way, pressing it close to the former and forming the bent link. A blue line also represents the link when bent around the former, seen in fig. 2. The object in making the openings in the lever through which the short shafts L L pass, elongated and curved, is that the wheels or pulleys may be moved to or from the former, to accommodate them to the different-sized links to be bent, or rather the different-sized metallic bars of which the links are formed. In making links for small chains they may be made from long bars of iron by attaching shears to the levers for cutting off the bars in proper length. Of course I do not confine myself to merely bending links with this machine as I may bend metal for other purposes, when it is possible to do so with the machine. After the link is bent by this machine it is placed in the hands of the smith, who turns its ends in and welds it together in proper manner.

Having thus fully described my invention, what I claim is—

1. The slotted lever D, provided with the wheels or pulleys J J′, in combination with the former C, arranged as and for the purpose specified.

2. The arrangement of the set-screw P with the former C and lever D, substantially in the manner and for the purpose herein specified.

In testimony that I claim the foregoing I have hereunto set my hand and seal this 26th day of December, 1866.

R. M. GREEN.

Witnesses:

C. M. ALEXANDER,

J. M. MASON.