

(No Model.)

4 Sheets—Sheet 1.

G. PARKER.  
DOBBY FOR LOOMS.

No. 448,668.

Patented Mar. 24, 1891.

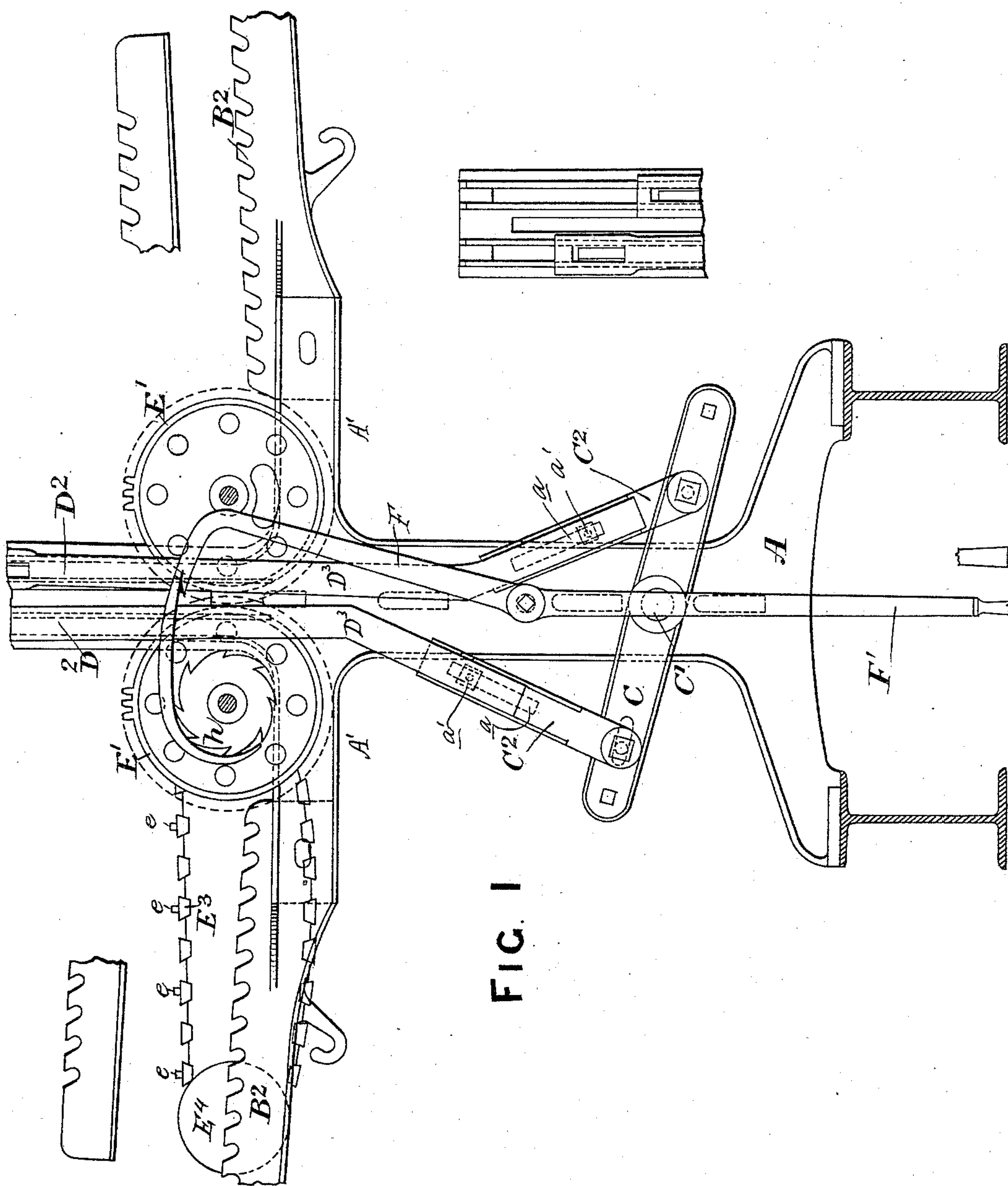


FIG. 1

WITNESSES.

*Chas. Amor.*

*Chas. Foules*

INVENTOR.

*George Parker*

*Per James H. Lancaster*  
*Attorney*

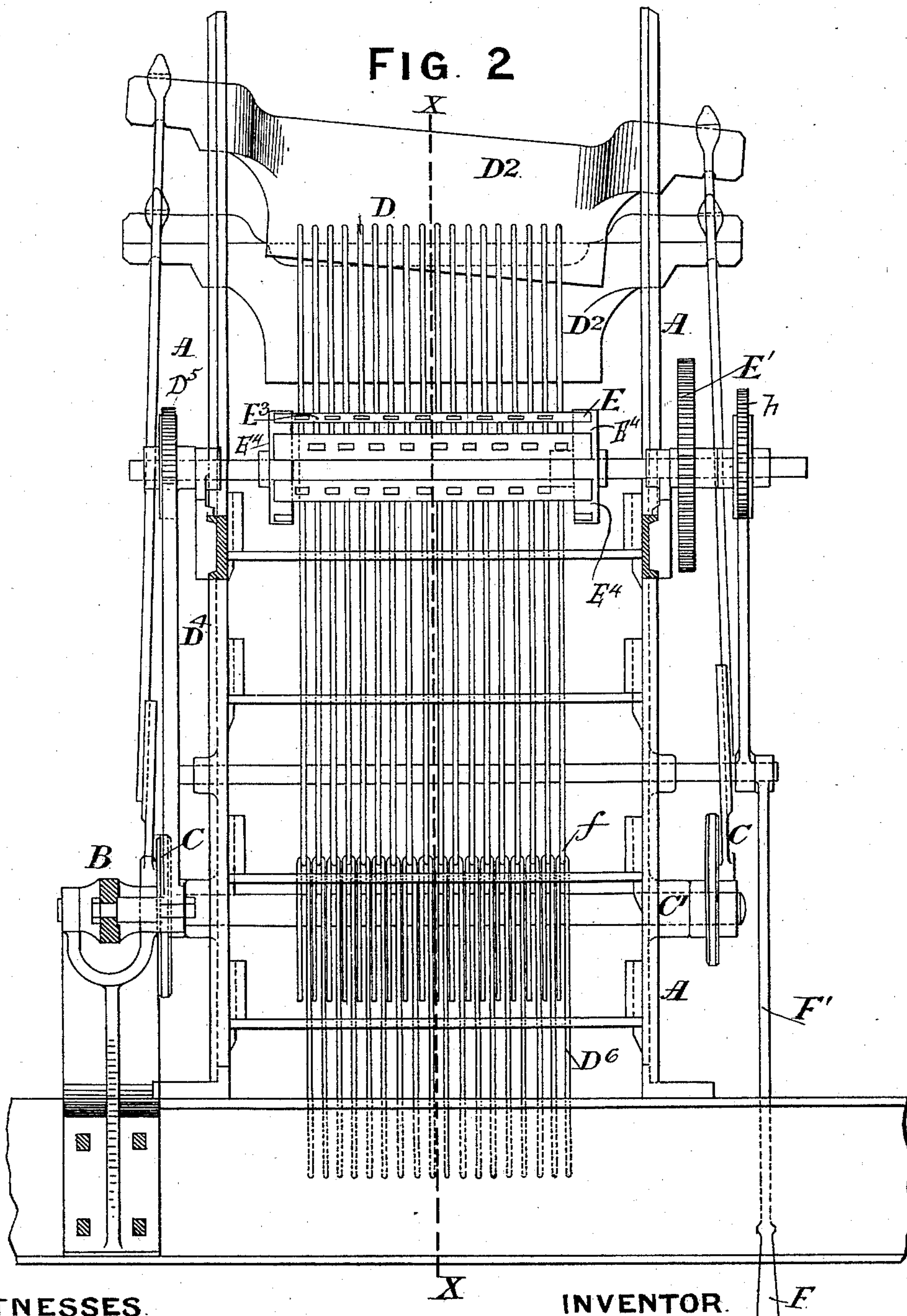
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WITNESSES.

*Chas. Amou.*  
*Chas. Foulds*

INVENTOR.

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(No Model.)

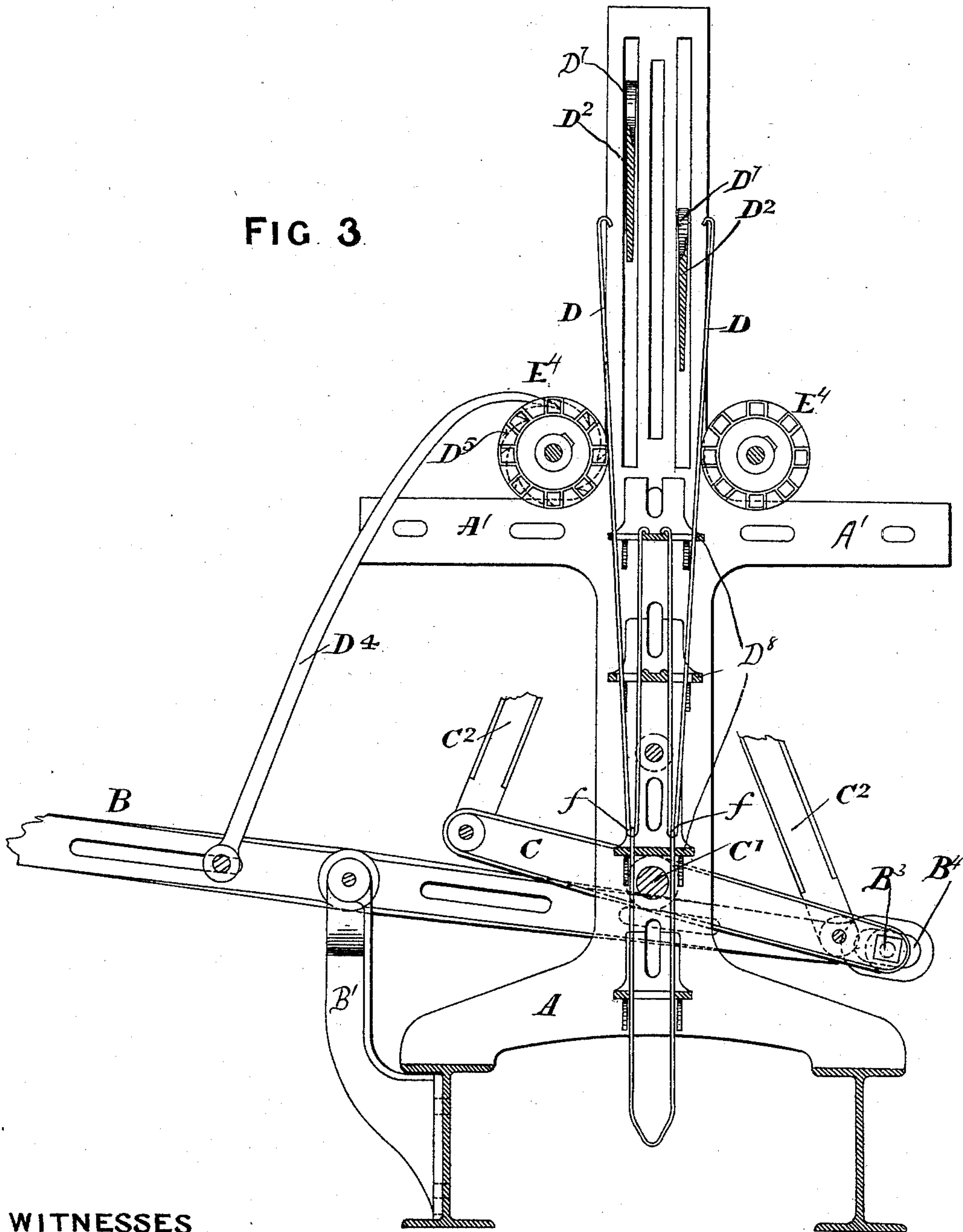
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FIG. 3.



WITNESSES

Chas. Armon.  
Chas. Foulds

INVENTOR

George Parker  
Per James N. Lancaster  
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(No Model.)

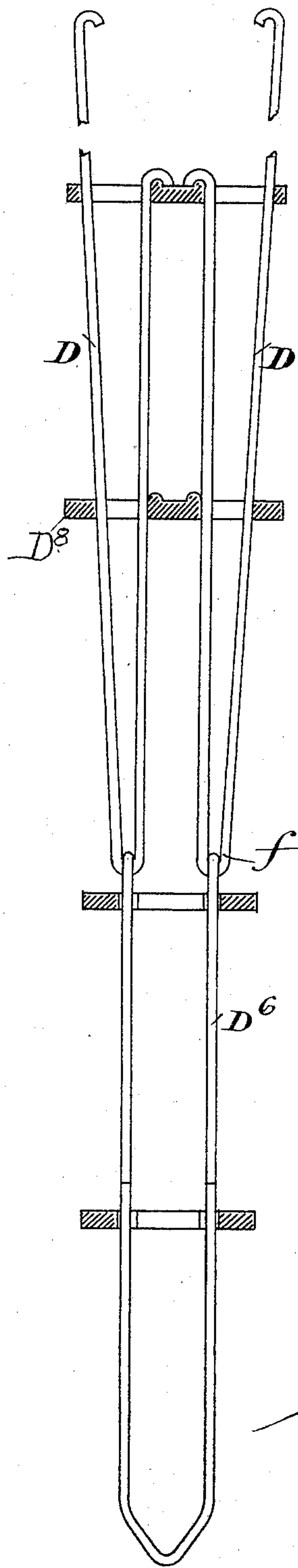
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FIG 4



WITNESSES

*Chas. Arnou.*  
*Chas. Soule*

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# UNITED STATES PATENT OFFICE.

GEORGE PARKER, OF PRESTON, COUNTY OF LANCASTER, ENGLAND, ASSIGNOR  
OF ONE-THIRD TO JAMES H. LANCASTER, OF NEW YORK, N. Y.

## DOBBY FOR LOOMS.

SPECIFICATION forming part of Letters Patent No. 448,668, dated March 24, 1891.

Application filed October 11, 1887. Serial No. 252,069. (No model.)

*To all whom it may concern:*

Be it known that I, GEORGE PARKER, a subject of the Queen of Great Britain, and a resident of Preston, in the county of Lancaster, England, have invented certain new and useful Improvements in Dobbies for Looms, of which the following is a full, clear, and exact specification.

My invention relates to a dobby or shedding mechanism to be employed in connection with looms for weaving fancy textile fabrics, and is designed to be attached to looms. It is also adapted for leno-work with the doups on the top, and will work any kind of stave-work running at any speed.

The invention consists of certain novel features in the construction of dobbies fully described hereinafter, and pointed out in the claims.

In the drawings, Figure 1 is an end view of a dobby embodying my invention, looking from the front of the loom. Fig. 2 is a side view of the same, looking from the end of the loom. Fig. 3 is a sectional view on the line  $x x$  of Fig. 2, looking from the back of the loom. Fig. 4 is an enlarged sectional view showing two wires carrying a stave.

Similar letters of reference indicate like parts throughout the several views of the drawings, in which—

A represents the main frame of the machine. To an upright  $B'$ , secured to the frame A, is fulcrumed the lever B, the rear end of which is connected by a rod to a crank eccentric or cam on the bottom shaft of a loom, and the forward end of which is connected with the lever C, mounted upon the shaft  $C'$ , the latter having its bearings in the frame A. There is a lever C mounted at each end of the shaft  $C'$ , and connected to each end of each of the levers C is an arm  $C^2$ . Each of said arms  $C^2$  is provided with an elongated slot  $a$ , adapted to receive a securing-bolt  $a'$ , connected with the lower end of one of the streamers  $D^3$ , the upper ends of which streamers are connected with the lifters  $D^2$ . The uprights are provided with slots to permit the vertical movement of the lifters, as seen in Fig. 3.

The frame A is provided with horizontal arms  $A'$  on each side thereof, to which are connected the extensions  $B^2$ , (which are omitted

from Fig. 3,) provided with racks on the upper edges thereof, these racks being adapted to receive the journals of the shafts carrying the sprocket-wheels  $E^4$ , upon which are mounted the pattern-chains having the lags  $E^3$ , provided with the projecting studs  $e$ , one such chain being shown.  $E'$  are the driving-gears for the sprocket-wheels  $E^4$ , and  $h$  is a ratchet-wheel which is operated upon by the pawl-lever  $F'$  to reverse the motion of the sprocket-wheels. The studs  $e$  upon the lags  $E^3$  are adapted to push against the wires D when in motion, and thus forcing their upper ends, which are slightly curved, to pass over the upper edges of the lifters  $D^2$ . The lower ends of the said wires D form the loops  $f$ , from which are suspended the staves  $D^6$ . The wires of course pass up through guides  $D^8$ , extending between the frames of the machine, the wires being arranged in pairs in the guides with their shorter ends facing, and from each pair of wires is suspended a stave  $D^6$ .

It will be obvious to those skilled in the art to which my invention appertains that the constant rocking of the lever B will impart an up-and-down movement to the streamers, thus giving a reciprocating movement to the lifters, whereby the wires carrying the staves on each side of the vertical center of the machine will be lifted alternately in the order determined by the arrangement of the studs  $e$  on the pattern-chains. It will also be observed that whenever the weft shall have been broken by accident the lags can be pushed back by means of the pawl-lever, it thus maintaining the pattern in proper form in the cloth.

There is connected with the lever B the pawl-arm  $D^4$ , the end of which engages with the ratchet-wheel  $D^5$ , mounted on one of the shafts carrying the sprocket-wheels  $E^4$ , the movement of said lever B imparting a similar movement to the pawl-arm  $D^4$ , which in turn operates the ratchet-wheel  $D^5$ , thus giving it a rotary motion, whereby the lags are carried toward the vertical center of the machine and cause the studs  $e$  of the lags  $E^3$  to push against the wires D and operate, as herein before stated.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—



1. The combination, with the uprights, each provided at its upper end with slots to permit of the movement of the lifters, of the lifters, the streamers connected to the lifters, 5 the levers carried by a shaft journaled in the uprights, connecting-arms pivoted to the ends of the levers and formed with elongated slots, bolts passed through said slots and adjustably securing the streamers and arms, an actuating-lever, slotted as described, and a pin 10 on one of the said levers working in a slot in the actuating-lever, substantially as described.

2. The combination, substantially as shown and described, consisting of the frames A, the 15 upright B', the lever B, fulcrumed to said upright, the forward end of said lever B being provided with a slot, the levers C, one of which

is provided with a wrist-pin entering said slot, the shaft C', the arms C<sup>2</sup>, each provided with an elongated slot *a*, bolts *a'*, the streamers D<sup>3</sup>, lifters D<sup>2</sup>, the extensions B<sup>2</sup>, provided with racks and secured to projecting portions of the frames A, the sprocket-wheels E<sup>1</sup>, driving-gears E', ratchet-wheel D<sup>5</sup>, the pawl-arm D<sup>4</sup>, the ratchet *h*, the pawl-arm F', the 25 wires D, having loops *f*, and the staves D<sup>6</sup>, substantially as shown and described.

In testimony that I claim the foregoing I have hereunto set my hand this 19th day of May, 1887.

GEORGE PARKER.

Witnesses:

CHARLES HARVEY,  
HENRY JAMES HARVEY.