

(No Model.)

W. E. SHARPLES.  
SPINNING MACHINE.

No. 353,887.

Patented Dec. 7, 1886.

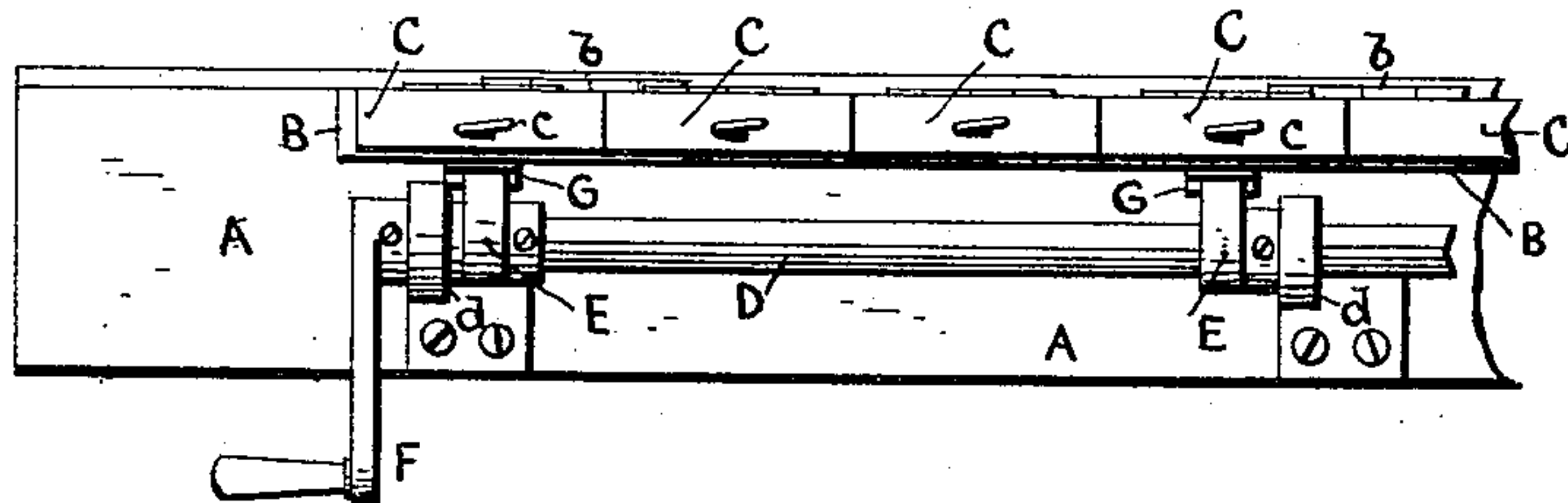


FIG. 1.

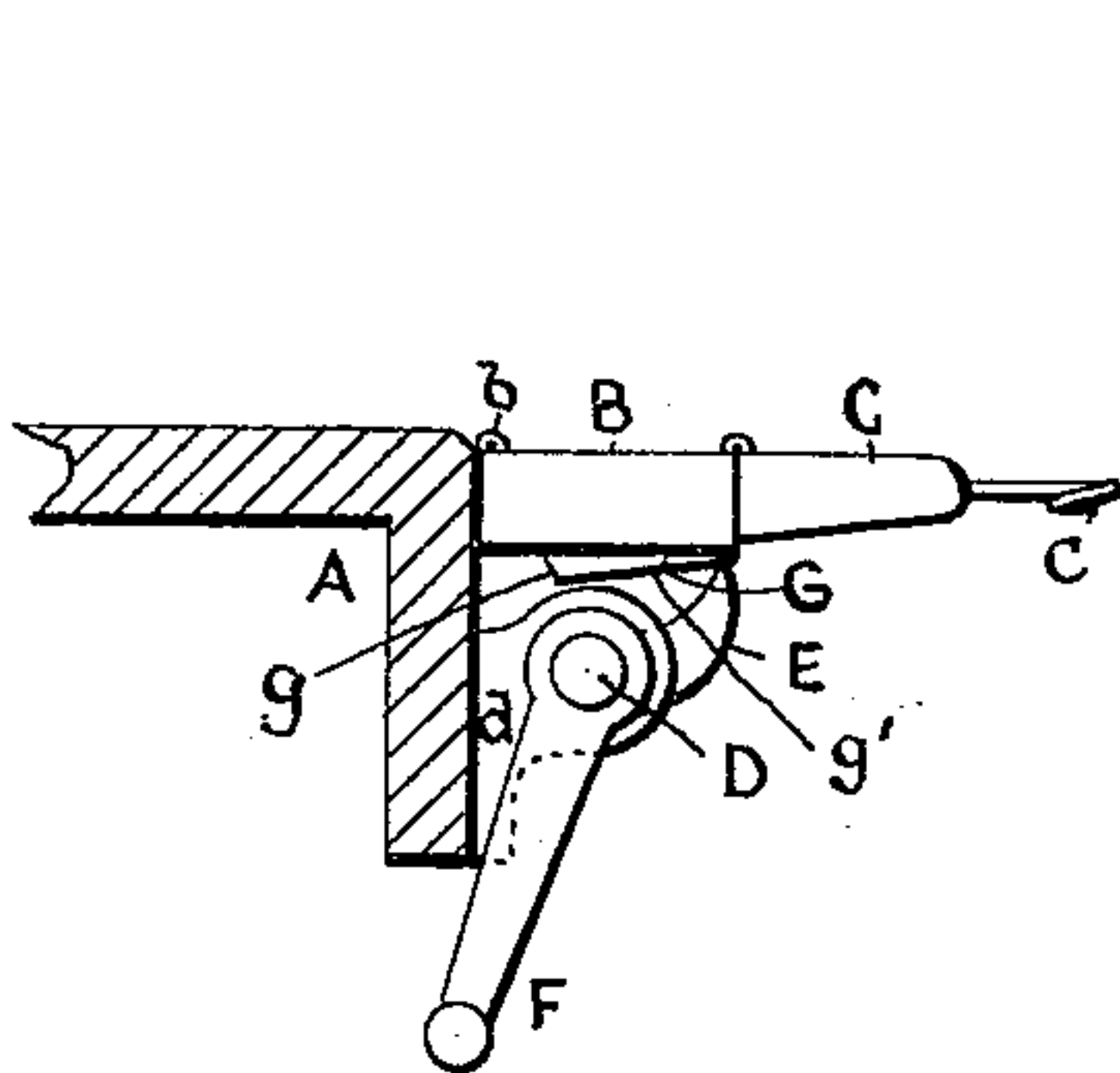


FIG. 2.

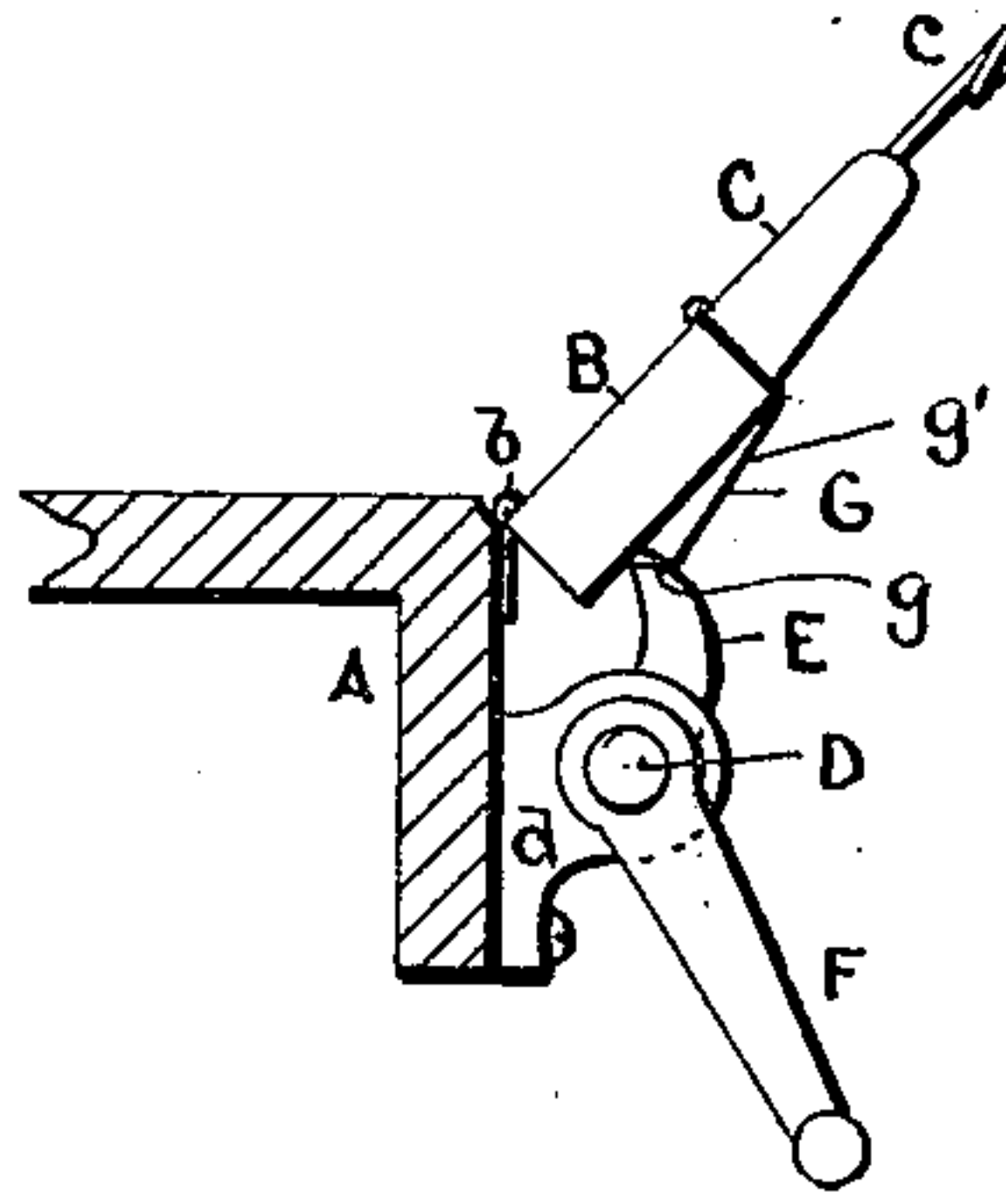


FIG. 3.

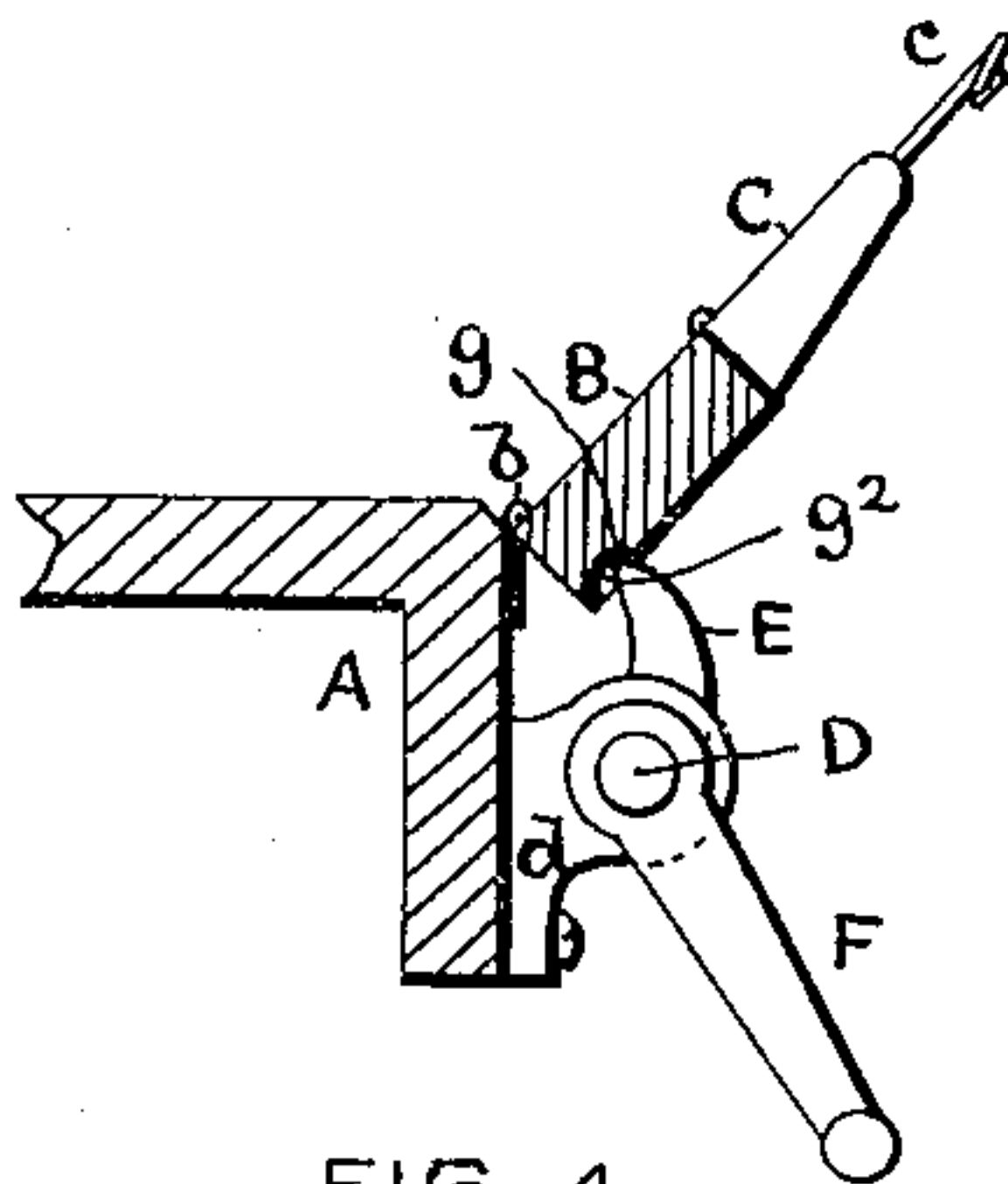


FIG. 4.

WITNESSES.

*Henry J. Stapleton*  
*George M. Cady*

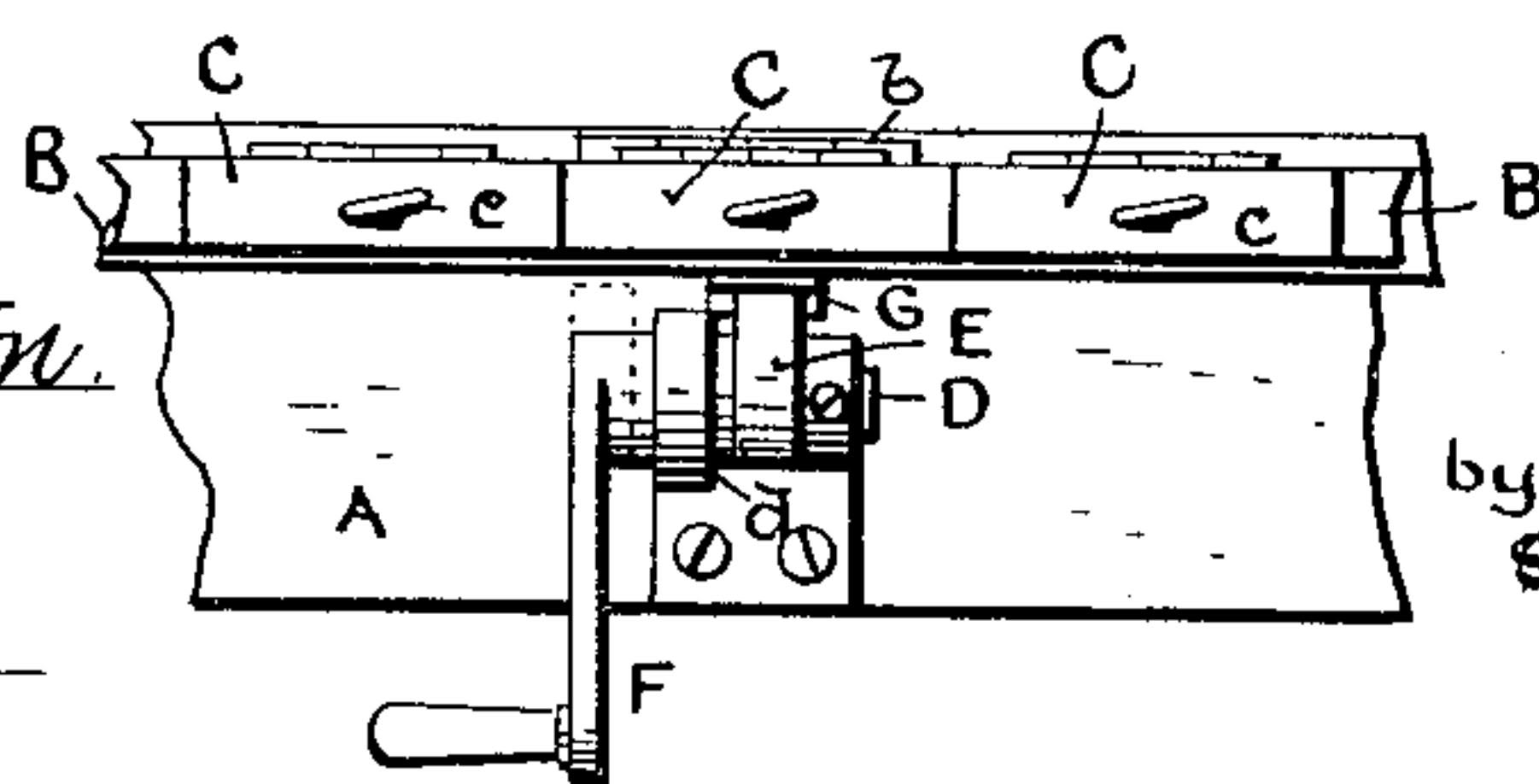


FIG. 5.

INVENTOR.

*William E. Sharples*  
by *Edson Salisbury Jones*  
Attorney.

# UNITED STATES PATENT OFFICE.

WILLIAM E. SHARPLES, OF FALL RIVER, MASSACHUSETTS.

## SPINNING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 353,887, dated December 7, 1886.

Application filed July 19, 1886. Serial No. 208,351. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM E. SHARPLES, a citizen of the United States, residing at Fall River, in the county of Bristol and State of Massachusetts, have invented a new and useful Improvement in Spinning-Machines; and I do hereby declare the following specification, taken in connection with the accompanying drawings, forming a part of the same, to be a description thereof.

This invention consists in hinging the guide-wire board of a spinning-machine so that when it is raised all the guide-wire blocks hinged thereto will be lifted at the same time, and in employing the means hereinafter described and claimed for raising said board, and also for holding the board in a raised position.

The object of the invention is to save time in doffing, and to prevent a displacement of the threads during such operation.

In the accompanying drawings, Figure 1 shows a front view of a portion of the roller-beam and the guide-wire board and blocks of a ring-spinning frame of ordinary construction, and the means employed for raising said board and blocks. Fig. 2 shows an end view of the same, the board being in a horizontal position. Fig. 3 shows an end view with the board and its blocks raised to enable the doffing operation to be performed. Fig. 4 shows a similar view with the guide-wire board in section and provided with an indented notch or shoulder to receive the end of the locking cams or levers, and thereby hold the board raised. Fig. 5 shows a front view of a portion of the roller-beam, board, and blocks, and a single lever or cam for raising the board.

A is the roller-beam.

B is the guide-wire board, which is pivoted by hinges *b* to the roller-beam, so as to be raised and lowered.

C are the guide-wire blocks hinged to the board B, and having the usual wires or eyes, *c*, for guiding the threads.

D is a shaft, which, as shown in Fig. 1, extends along the frame beneath the board B, and is journaled in bearings *d*. To the shaft D are secured one or more levers or cams, E, and the shaft is furnished with a handle, F, for

rocking it. Preferably the board B is provided with as many plates G as there are cams E, so that the board shall not be worn during the raising and lowering operations by the engagement of the cams therewith.

When the handle F is raised, the shaft D will be partially rotated, and the board B will, with its blocks C, be swung upwardly from the position shown in Fig. 2 to that shown in Fig. 3 by the action of the cams E, thereby enabling the bobbins to be doffed.

In order that the board B may be locked or held in a raised position, the plates G are so located on the board that the ends of the cams E will engage the ends of the plates or shoulders *g* thereon when the board is fully raised, as shown in Fig. 3.

Preferably the faces *g'* of the plates G are inclined with relation to the board B, as shown in Figs. 2 and 3, so that the board may be raised more quickly and higher, and so that an extensive locking-shoulder, *g*, may be provided.

In place of furnishing the board B with plates G, projecting therefrom, as shown in Figs. 2 and 3, the board may have indentations or notches *g''*, as shown in Fig. 4, so as to produce shoulders *g*, with which the ends of the cams E can engage to hold the board raised.

When the handle F is lowered, the cams E will move off the shoulders *g* and the board B and its blocks will return by gravity to a horizontal position.

Although I prefer to employ several cams E, yet only one such cam may be employed, and it and the handle F be located substantially in the center of the length of the board B, as is intended to be indicated in Fig. 5. In such case, also, the cam may project from the handle F, as shown by dotted lines, instead of being secured directly to the shaft D.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The combination, with the hinged board B, having the hinged blocks C, of the rock-shaft D, one or more cams, E, and a handle, F, substantially as described, and for the purposes specified.

2. The combination, with the hinged board B, having the hinged blocks C, and provided with one or more locking-shoulders, *g*, of the



rock-shaft D, having one or more cams, E, and a handle, F, substantially as and for the purposes specified.

3. The combination, with the hinged board  
5 B, having the hinged block C, and provided with one or more plates, G, having an inclined face,  $g'$ , and shoulder  $g$ , of the rock-shaft D,

having one or more cams, E, and a handle, F, substantially as and for the purposes specified.

WILLIAM E. SHARPLES.

Witnesses:

EDSON SALISBURY JONES,  
GEORGE M. CADY.