

(No Model.)

G. J. DICKSON.  
TRANSOM LIFTER.

No. 428,165.

Patented May 20, 1890.

Fig: 1.

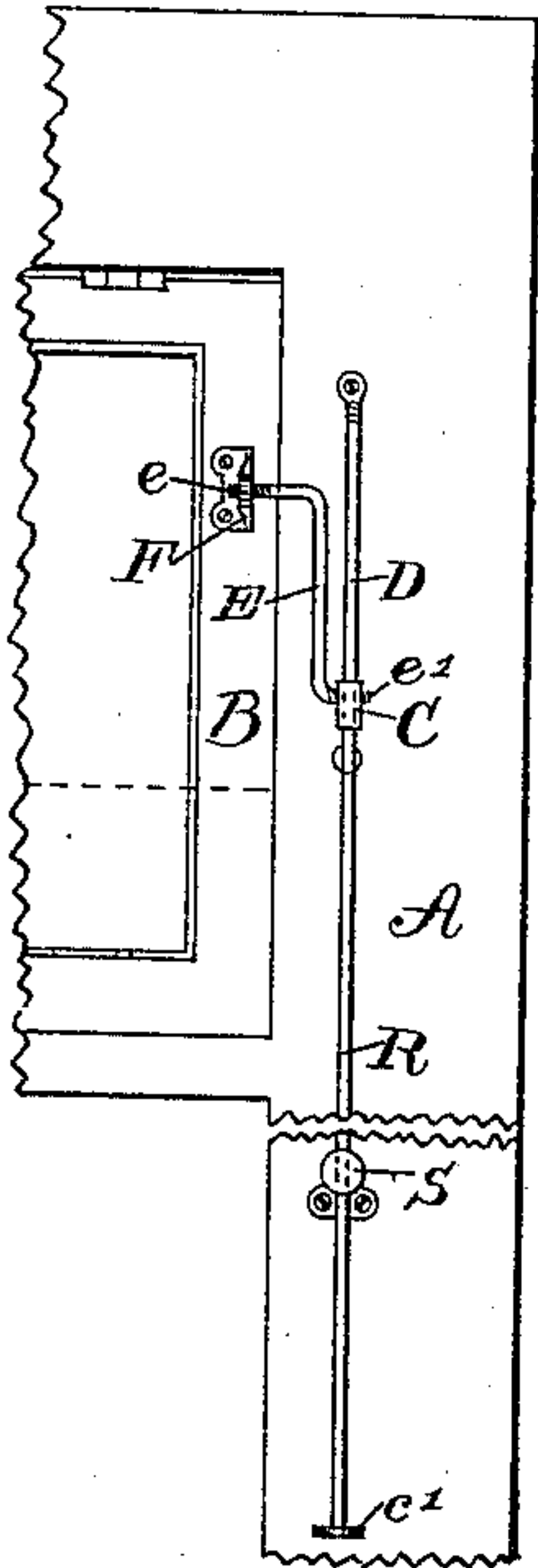


Fig: 2.

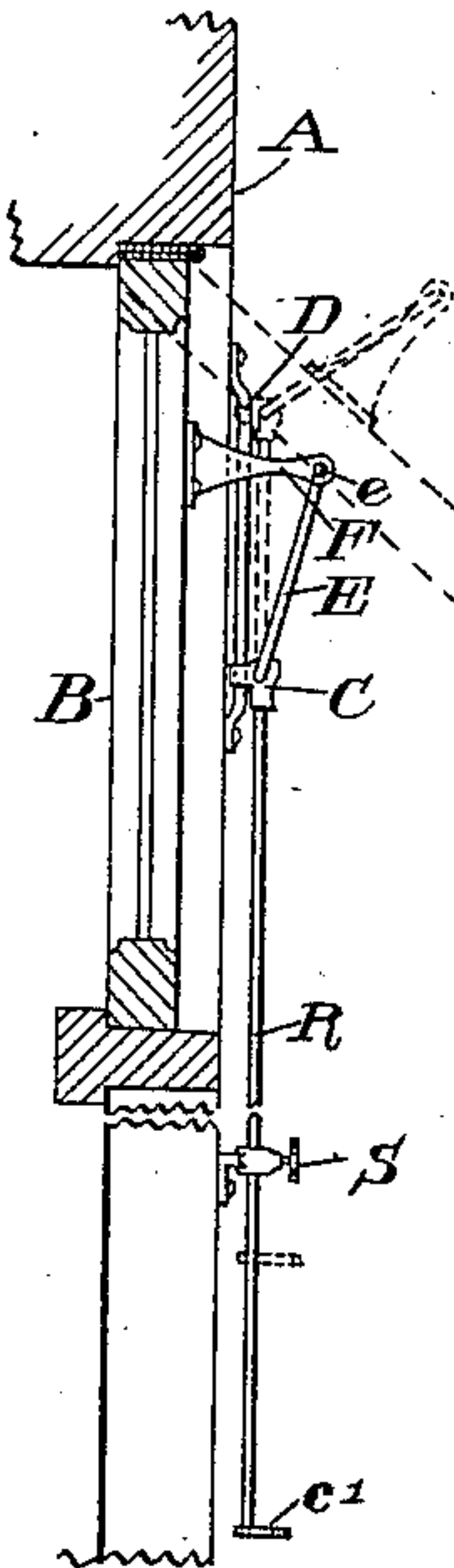


Fig: 3.

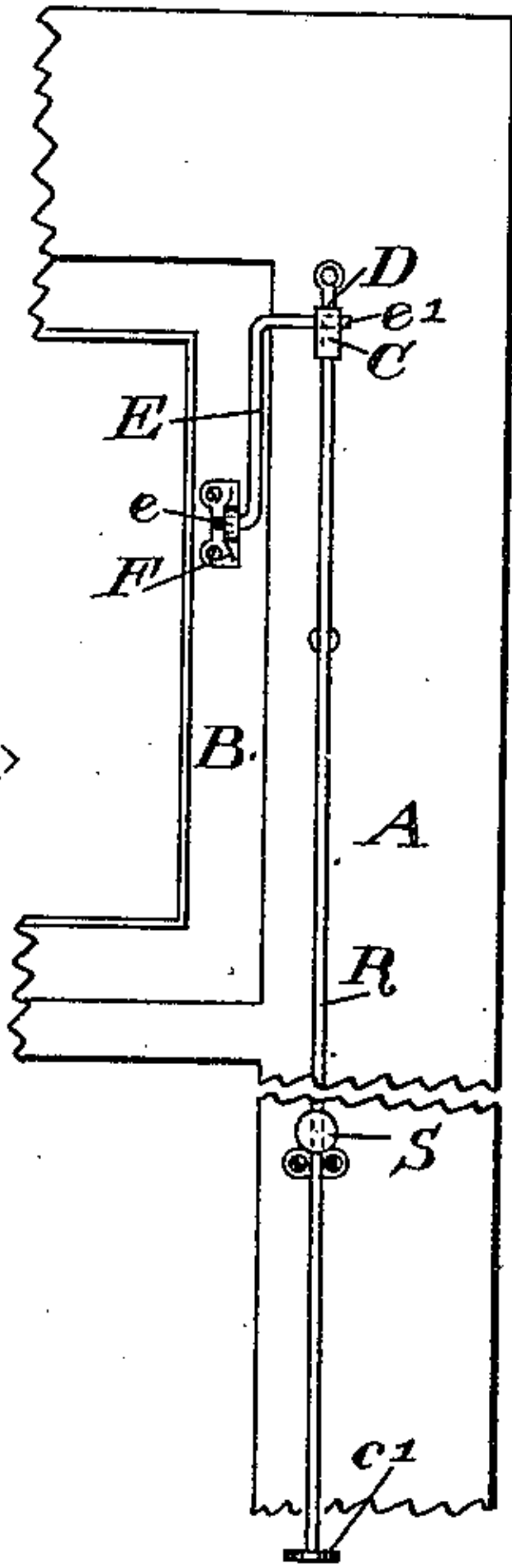


Fig: 4.

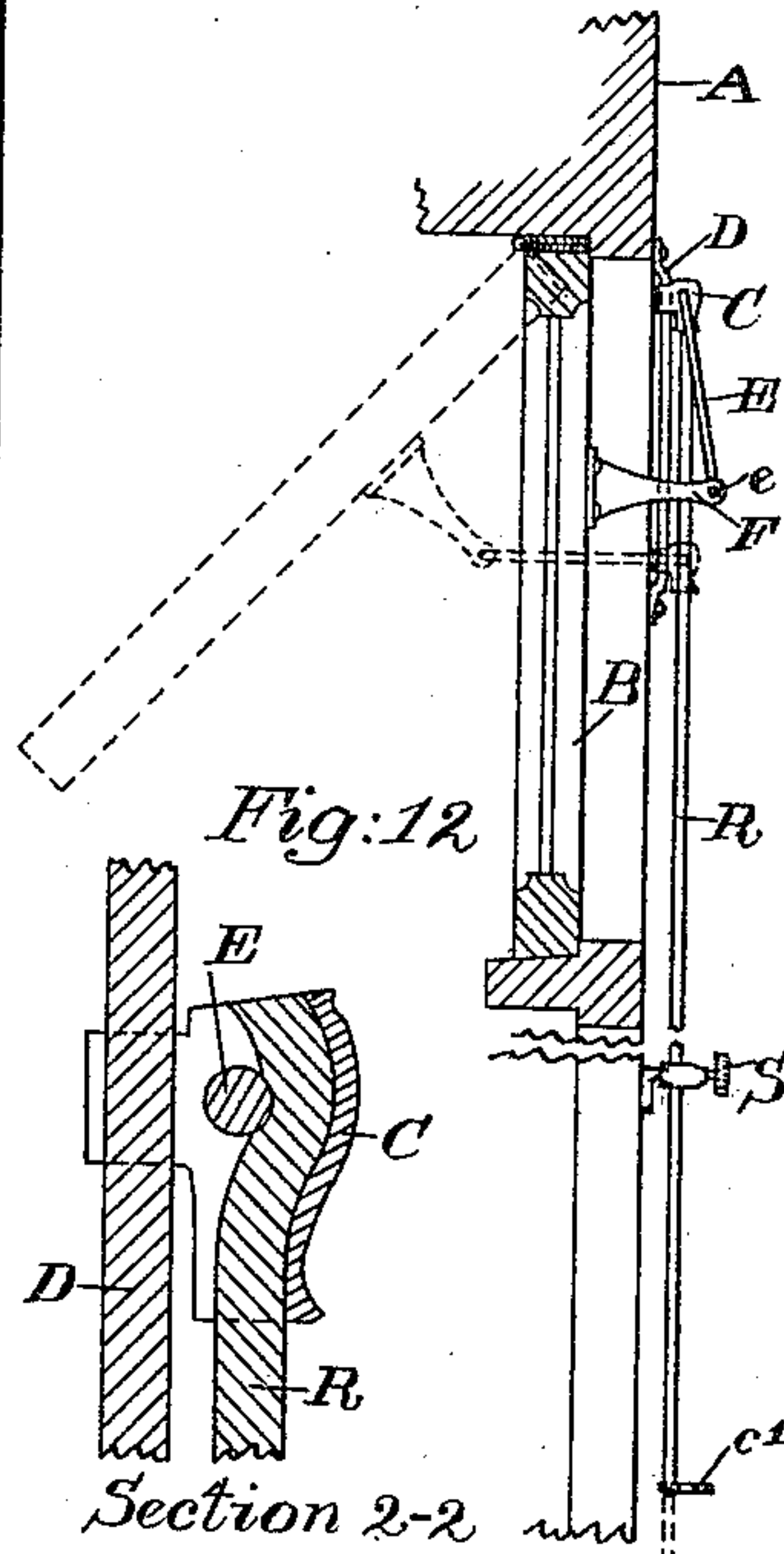


Fig: 5.

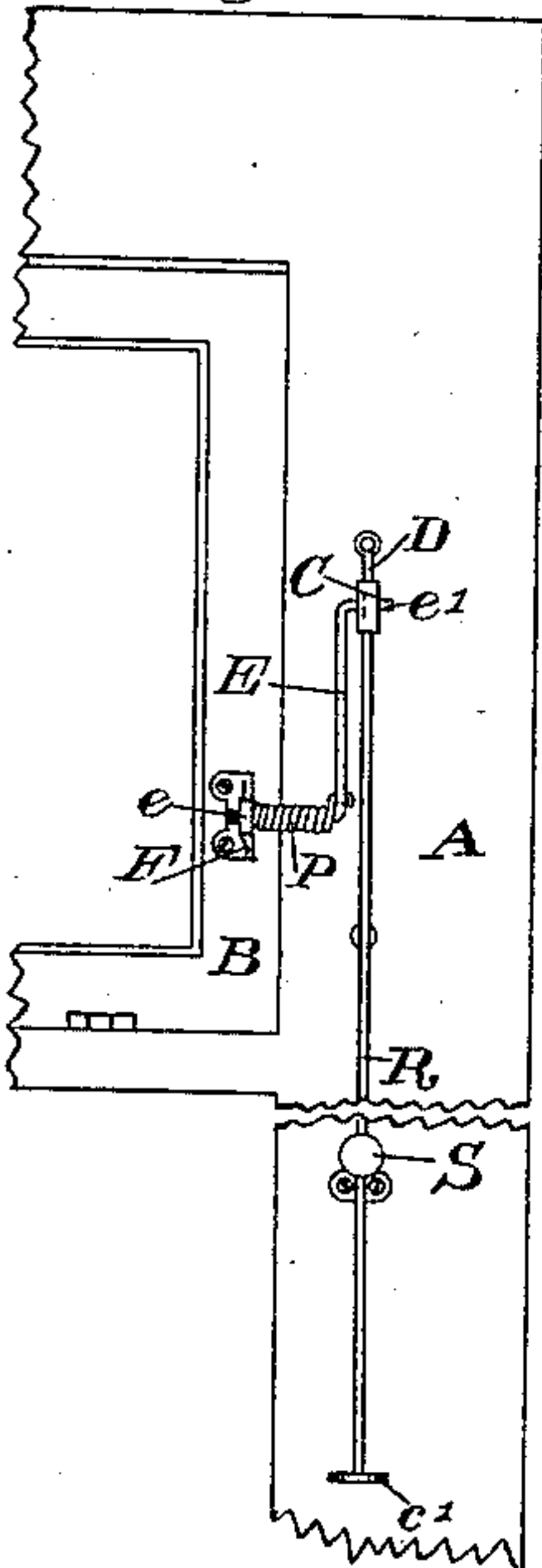


Fig: 6.

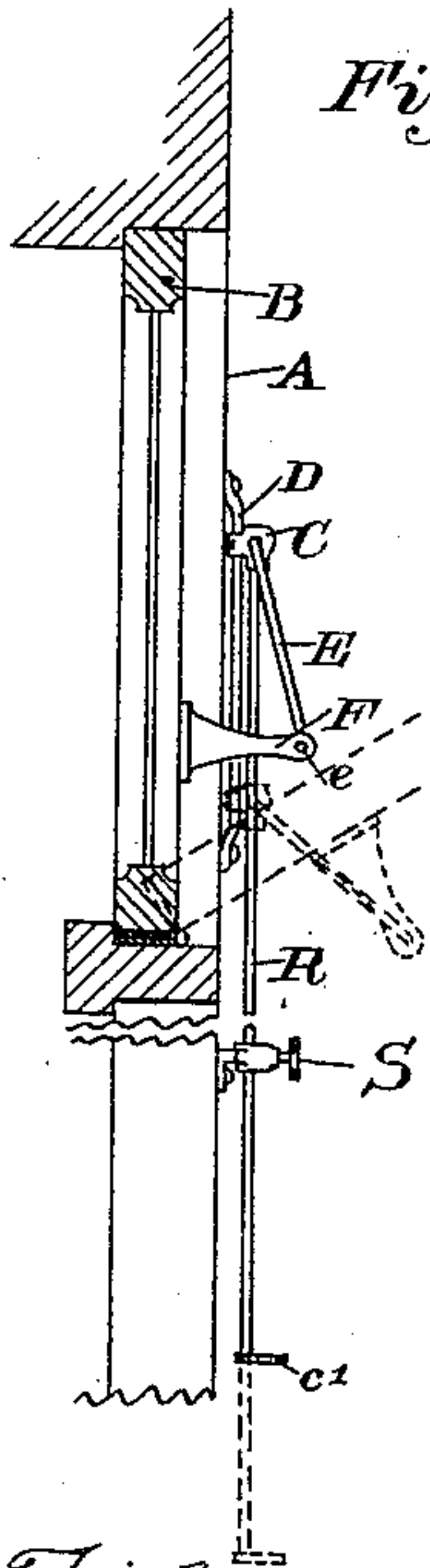


Fig: 7.

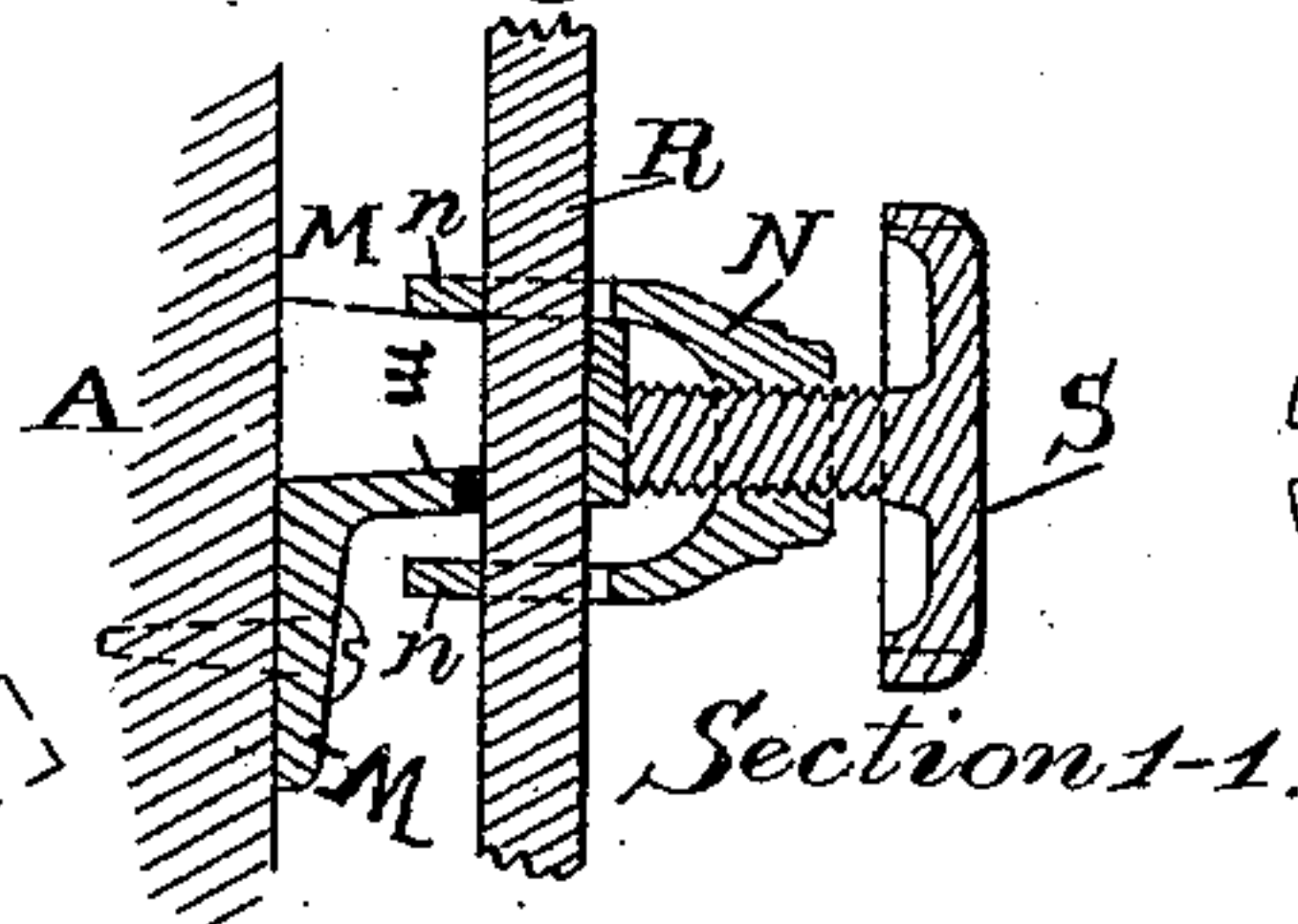


Fig: 9.

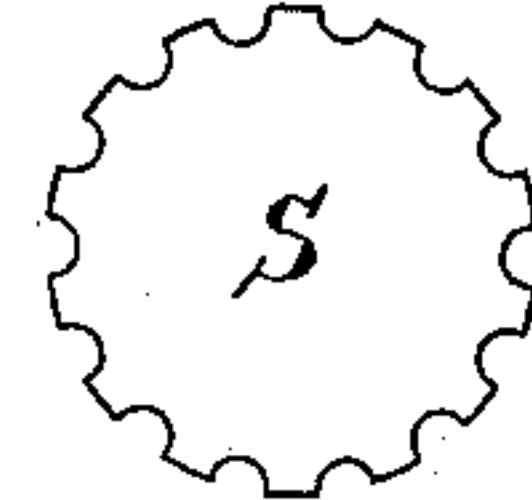


Fig: 8.

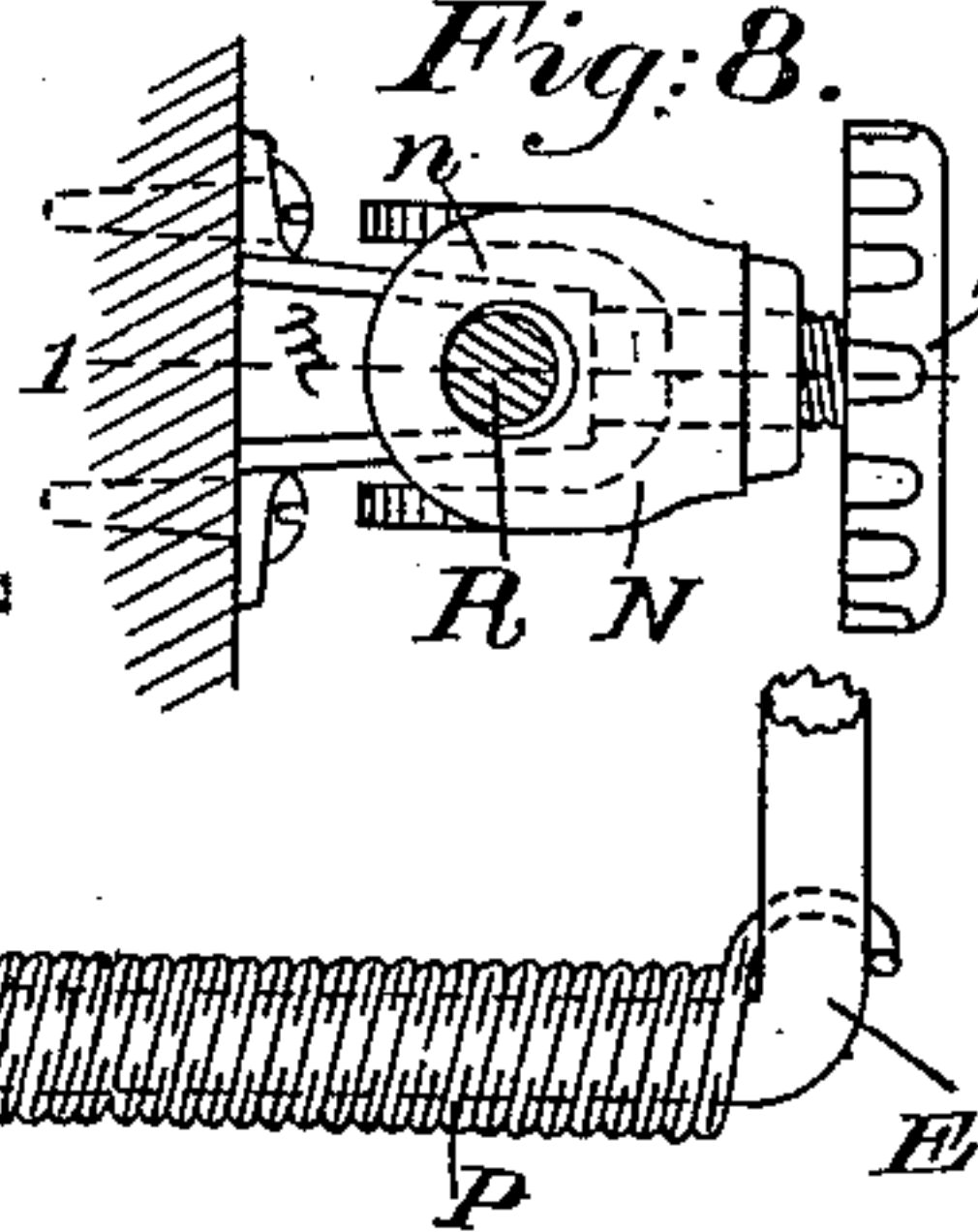


Fig: 10.

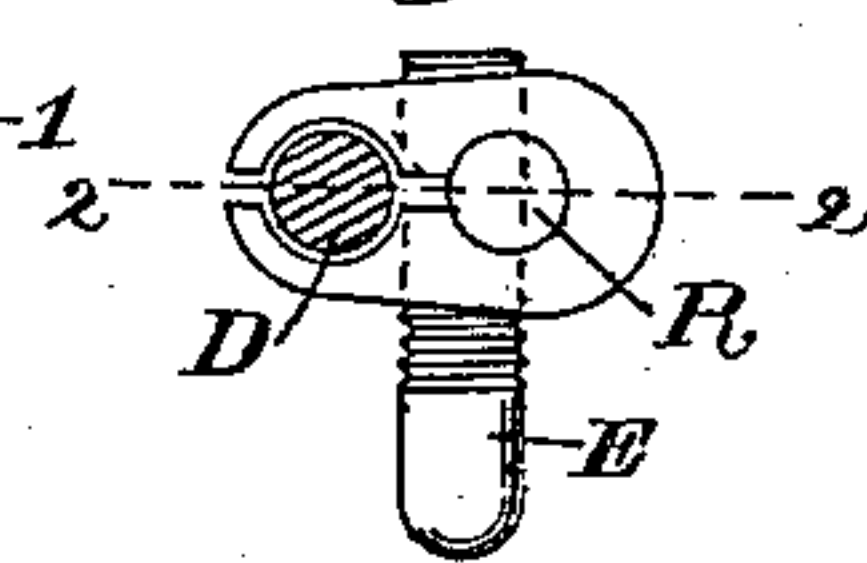
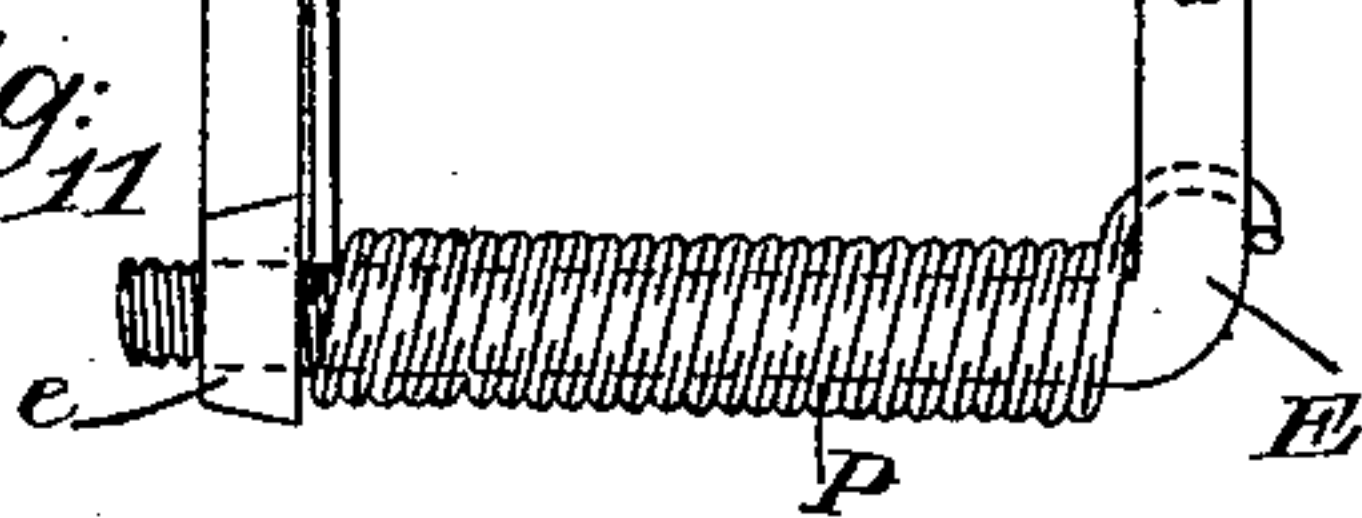


Fig: 11.



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## TRANSOM-LIFTER.

SPECIFICATION forming part of Letters Patent No. 428,165, dated May 20, 1890.

Application filed February 8, 1890. Serial No. 339,627. (No model.)

*To all whom it may concern:*

Be it known that I, GILBERT J. DICKSON, a citizen of the United States, residing at the city and county of Albany, State of New York, have invented a new and useful Improvement in Transom-Lifters, of which the following is a specification.

My invention relates to improvements in transom-adjusters; and the object of my invention is to produce a transom-lifter that may be placed upon either the right or left side of a transom, and may be so arranged as to open the transom from the top or from the bottom toward the side on which the mechanism is placed or opening the same toward the opposite side, as may be desired. I accomplish these objects by means of the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a front elevation showing my transom-lifter attached to a closed transom. Fig. 2 is a side elevation, partly in section, of Fig. 1, showing the transom open. Fig. 3 is a front elevation showing a transom, to which my invention is attached, closed. Fig. 4 is a side elevation, partly in section, of Fig. 3, showing the transom opened toward the side opposite that upon which the apparatus is placed. Fig. 5 is a front elevation of a closed transom, to which my invention is attached. Fig. 6 is a side elevation, partly in section, of Fig. 5, showing the transom open from the top. Fig. 7 is a section of the clamping device placed on the operating-rod. Fig. 8 is an elevation of said clamping device. Fig. 9 is a plan of the thumb-screw attached to said clamping device. Fig. 10 is a plan of the saddle C. Fig. 11 shows the safety-spring placed on the offset-arm. Fig. 12 is section 2 2 of Fig. 10.

Similar letters refer to similar parts throughout the several views.

To the casing or frame A, a short distance from the transom, I attach the guide-rod D in any suitable manner. On said guide-rod D, I place the saddle C in such a manner that it shall reciprocate along the guide-rod. The operating-rod R is bent near its upper end, and about the bent portion of the rod R is clamped the saddle C, Fig. 12. The saddle C has a lateral opening, which is usually threaded, and one side of the interior of said

opening is formed by the concave part of the bent portion of the rod R, and upon which concave surface threads are cut. The saddle C is also formed with an opening beneath the rod R and at the jaws of the saddle, through which freely passes the guide-rod D. As thus arranged the saddle is held firmly in position without rivet or screw, and may be placed at any position along the operating-rod R. Into the lateral opening in the saddle I place the shorter horizontal end of the offset-arm, which is threaded to mesh with the threads in said opening.

The offset-arm E is provided near its end opposite that attached to the saddle C with an elongated horizontal threaded portion extending beyond the window casing or frame, and passes into a threaded pivotal bearing on the bracket F, attached to the transom B. As thus arranged, by means of the operating-rod R the transom may be opened from the top or from the bottom in accordance with the location of the bracket F. If the bracket F is placed above the saddle C when the transom is closed, as shown in Fig. 1, the transom will open from the bottom by forcing upward the operating-rod R. If the bracket F is placed below the saddle C, as shown in Fig. 5, the transom will open from the top by forcing downward the operating-rod R.

When it is desired to open the transom toward the side opposite to which the device is connected, I place the short horizontal portion of the offset-arm in connection with the bracket F, and place the longer horizontal portion of the offset-arm in connection with the saddle C, as shown in Figs. 3 and 4. As thus arranged the window may be forced outward either from the top or from the bottom, according to the relative positions of the bracket F and the saddle C, as already explained in reference to Figs. 1 and 5.

For the purpose of retaining the transom in any required position, I place a clamping device in connection with the operating-rod R. To the face of the casing I attach the bracket M, provided with a lug *m*, having an opening therein, through which the operating-rod R freely passes. Over the lug *m*, I place the clamping-piece N, which is provided with two lugs *n*, one opposite the other, and having openings therein, through which the



operating-rod passes, so that one of the lugs *n* is on one side of the lug *m* and the other lug *n* is on the opposite side of the lug *m*, the operating-rod passing through the openings  
 5 in each of said lugs. Through a threaded opening in the top of the clamping-piece *N*, I place the screw *S*, having its point in contact with the top of the lug *m*. Thus by operating the screw the lugs attached to the clamp-  
 10 ing-piece are brought in contact with the lower surface of the operating-rod, and the top of the lug *n* is forced into contact with the upper portion of the operating-rod *R*, thus holding the operating-rod firmly in the  
 15 position desired.

When a heavy transom is to be operated upon, it is desirable to have some device for allowing it to open gradually; otherwise after the upper portion of the sash has been  
 20 drawn a short distance from the frame it will fall with great force, tending to break the glass and the hinges by which it is attached to the frame. I place a spiral spring *P* on the horizontal portion of the offset-arm,  
 25 connecting one end of the spring to the vertical portion of the arm, and the other to the bracket on the sash in such a position that the spring will become contracted as the window opens downwardly, holding the window  
 30 to such an extent as to overcome its tendency to fall.

An important part of my invention is the mode of attachment of my offset-arm. By means of two right-angled portions of the  
 35 arm extending in opposite directions the one from the other, and having one of said portions longer than the other, enables me to place my device on either side of the window, right or left, and open the window from  
 40 the top or from the bottom, outwardly or inwardly, as may be desired, a result which has not been attained by any other device within my knowledge.

My transom-lifter is extremely simple in its operation, inexpensive in its construction,  
 45 and performs the work required of it in a very satisfactory and positive manner.

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

1. In a transom-lifter, the combination of 50  
 an operating-rod whose upper end is fitted to reciprocate upon a guide-rod, said operating-rod provided near its upper end with a bearing, on which is placed the horizontal portion of one end of an offset-arm, the oppo- 55  
 site horizontal portion of said offset-arm placed in a bearing in a bracket attached to the transom, all substantially as described, and for the purpose set forth.

2. In a transom-lifter, the combination of 60  
 an offset-arm having its ends bent at right angles and extending in opposite directions one to the other, and having a thread cut thereon, one end of said offset-arm placed in a threaded bearing in a saddle attached to 65  
 the end of the operating-rod, the other end of said offset-arm extending beyond the casing and in front of the transom-sash, pivoted in a threaded bearing attached to said sash, all substantially as described, and for the pur- 70  
 pose as set forth.

3. In a transom-lifter, the combination of  
 an operating-rod provided near one end with a saddle, which saddle reciprocates upon a guide-rod, in which saddle is pivoted the 75  
 horizontal portion of one end of an offset-arm, the opposite horizontal portion of said offset-arm pivoted in a bearing attached to the transom, with a spiral spring placed around the horizontal portion near one end 80  
 of the offset-arm, said spring having one end in contact with the vertical portion of said arm, the other with the bracket attached to the transom, all substantially as described, 85  
 and for the purpose set forth.

4. In a transom-lifter, a rod *R*, bent in the form of an elbow, with a saddle placed about said rod, forming at its jaws an opening, through which a guide-rod passes, said saddle *C* having a lateral opening, one side of 90  
 which is formed by the concave surface of the rod *R*, all substantially as described, and for the purpose as set forth.

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Witnesses:

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