(No Model.)

2 Sheets—Sheet 1.

J. A. COWLES.

HEAT FENDER FOR STOVES.

No. 254,803.

Patented Mar. 14, 1882.

Fig. 1.

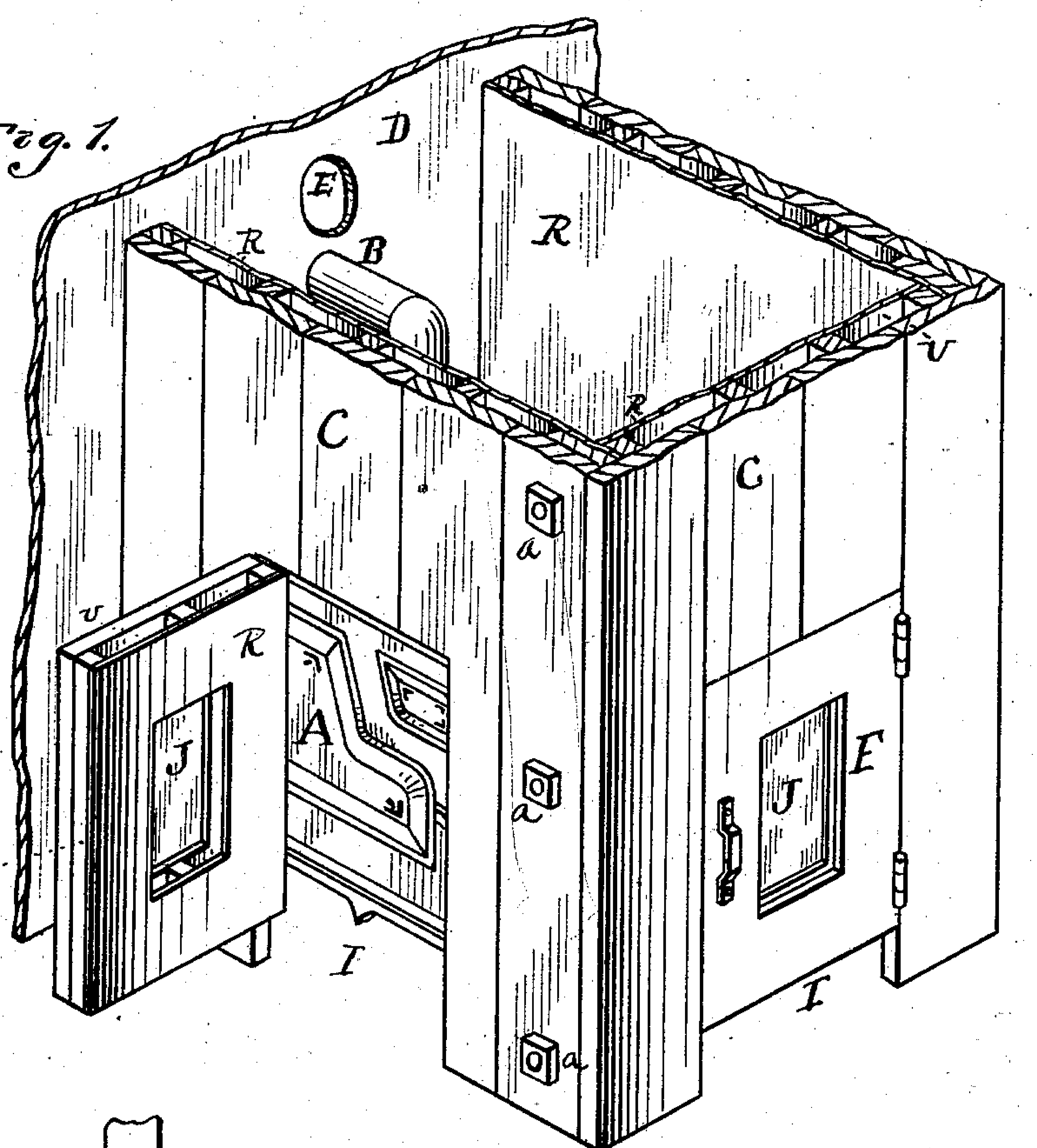
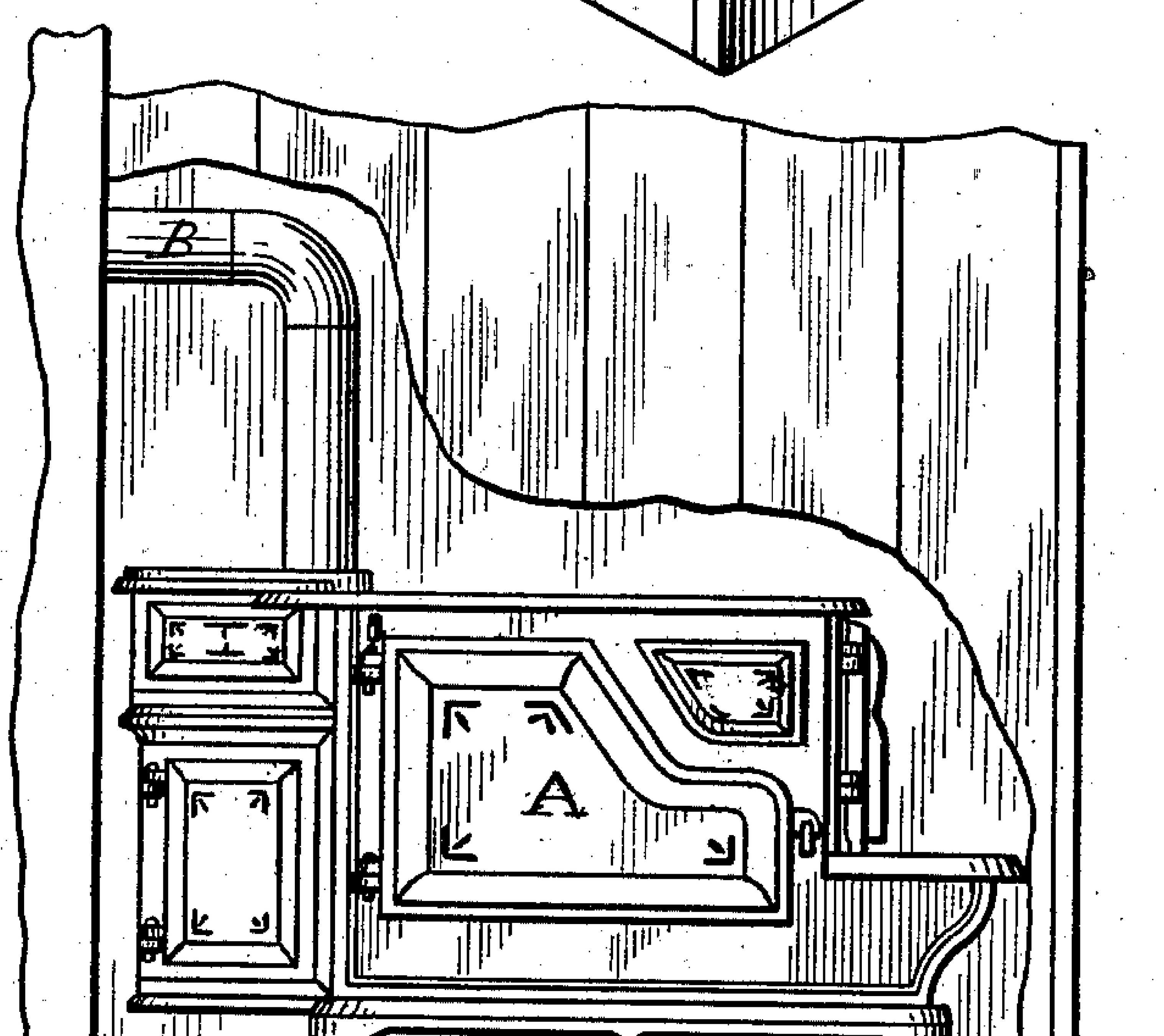


Fig. 2.



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(No Model.)

2 Sheets—Sheet 2.

J. A. COWLES.

HEAT FENDER FOR STOVES.

No. 254,803. Patented Mar. 14, 1882.

Fig. 3.

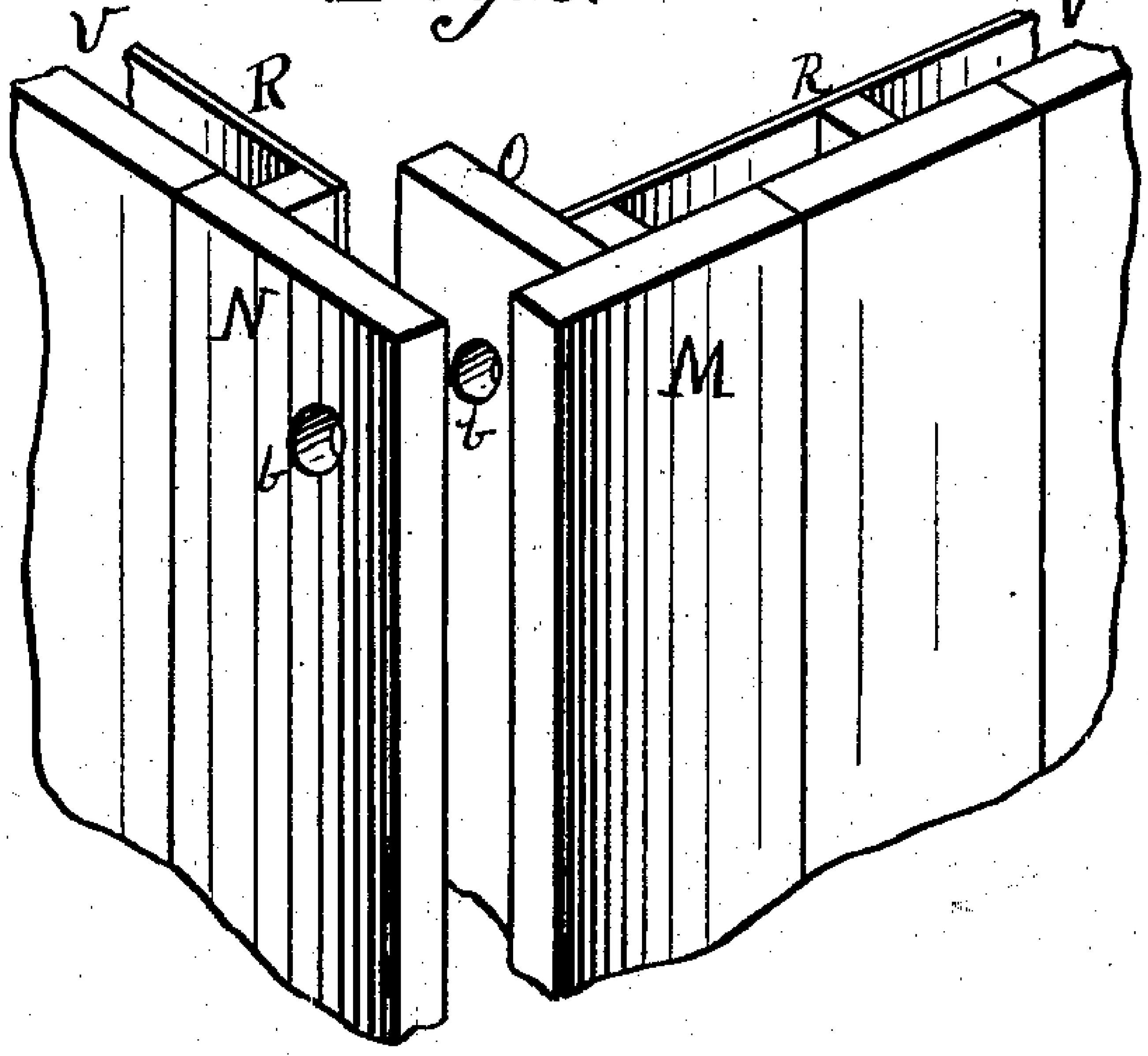


Fig. 4.

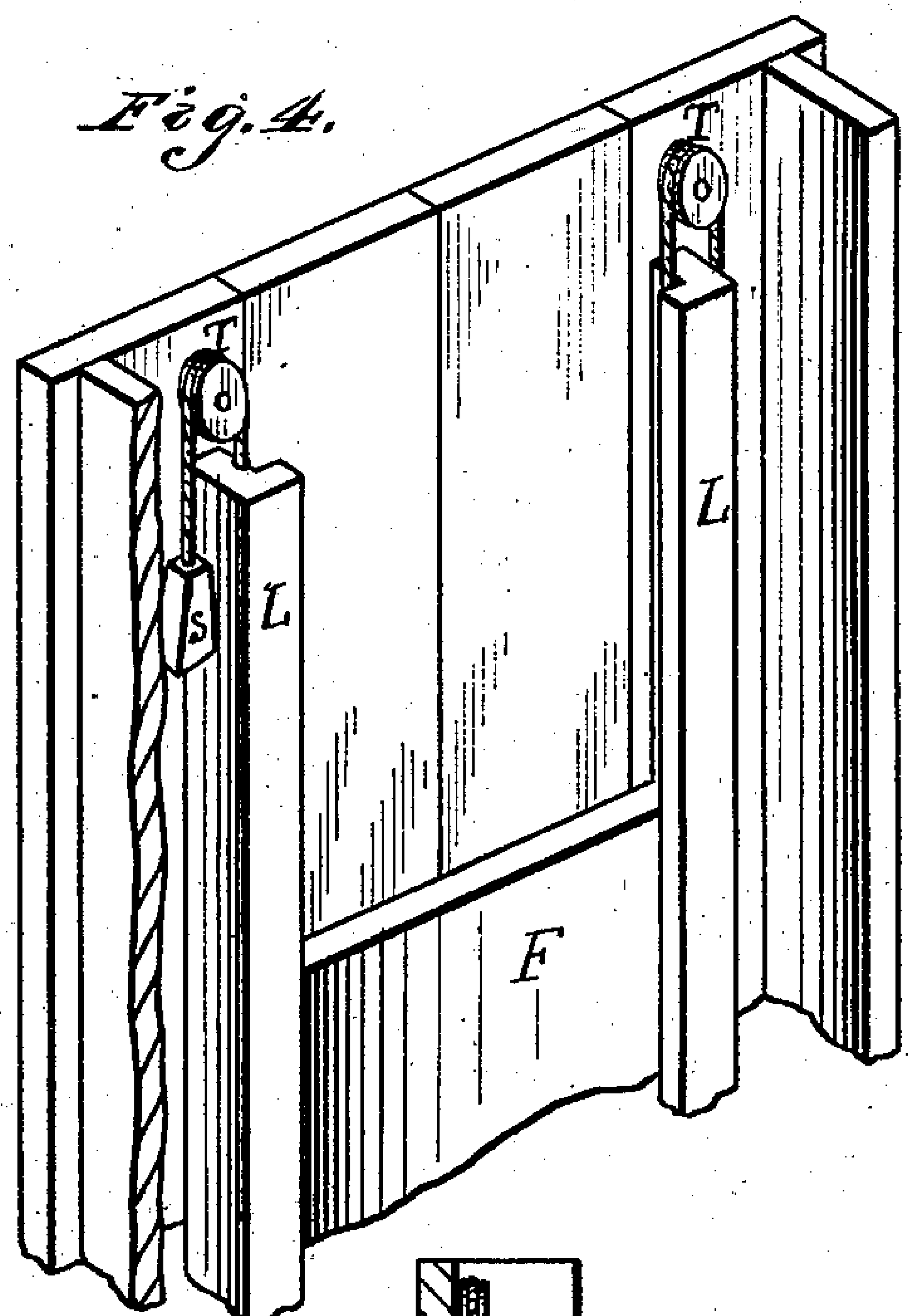


Fig. 5.

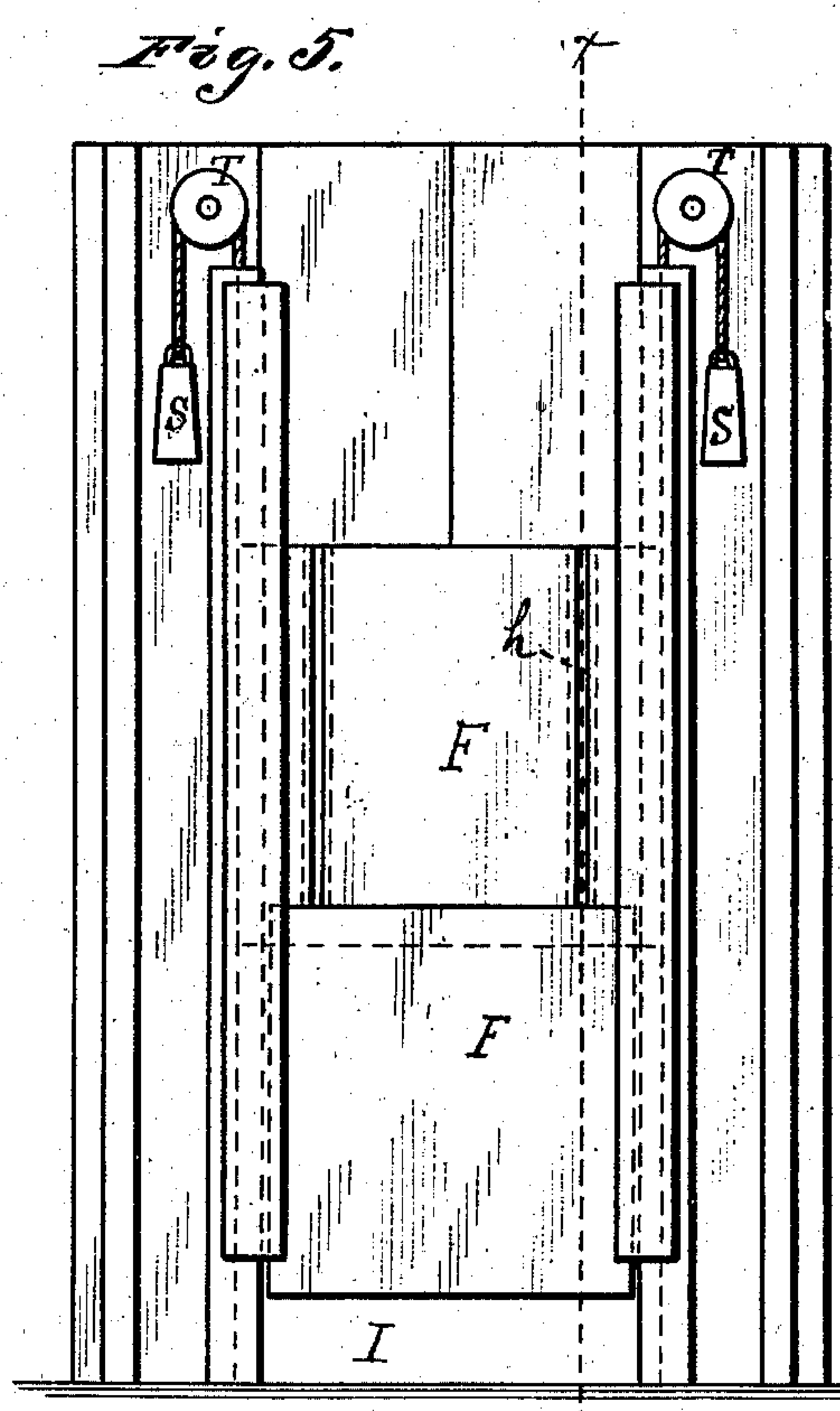
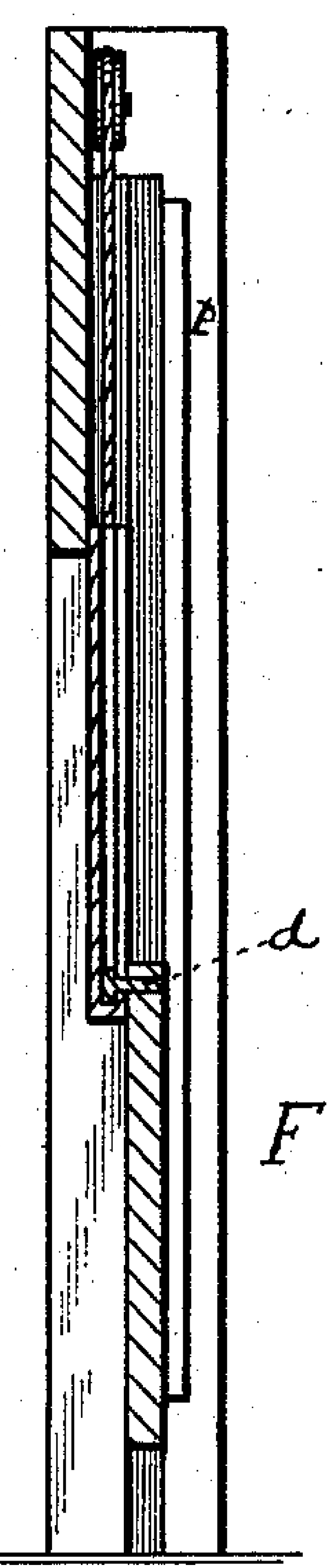


Fig. 6.



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UNITED STATES PATENT OFFICE.

JAMES A. COWLES, OF CHICAGO, ILLINOIS.

HEAT-FENDER FOR STOVES.

SPECIFICATION forming part of Letters Patent No. 254,803, dated March 14, 1882.

Application filed June 27, 1881. (No model.)

To all whom it may concern:

Be it known that I, JAMES A. COWLES, of Chicago, in the county of Cook and State of Illinois, have made certain new and useful Improvements in Heat-Fenders for Stoves or Ranges, of which the following is the specification, reference being had to the accompanying drawings, and to the figures and letters of reference thereon.

Figure 1 is a perspective view of my heat-fender with one door open, showing the stove. Fig. 2 is a side elevation with one side cut away, showing the stove more clearly than in Fig. 1. Fig. 3 is a detailed view, showing the method of fastening the sides together at the corners. Fig. 4 is a sectional view, showing one method of opening the doors and holding them in position. Fig. 5 is an inside view of one of the sides, showing the door in position. Fig. 6 is a vertical section of Fig. 5 through line *x x*.

The object of this invention is to provide a cheap and safe means whereby the heat arising from the cooking-stove and the noxious and offensive odors arising from cooking are entrapped and led directly into the chimney, and thus prevented from escaping into the room and spreading throughout the house, to the detriment of the health and personal comfort of the occupants.

Similar letters of reference refer to similar parts in the different drawings.

A is the cook-stove or range, having the pipe B entering the chimney in the ordinary way. The stove or range is surrounded by the partitions or sidings C C, with the corners extending from the floor to the ceiling.

D is the side of the room beyond which is the chimney. The chimney may be built within the room.

E is the flue entering the chimney above the stove-pipe B and within the fender.

F F are doors located on the sides of the partitions forming the fender, leaving an opening, I, of about one foot or so in height under each door, next to the floor.

J J are windows placed in the doors. They may be of one or more panes of glass, as fancy would suggest. The doors shown in Fig. 1 are hung on hinges in the ordinary manner, and should it be desired they could be made to be raised up and lowered, as shown in Figs. 4, 5, and 6, and should the ceiling be so low as not to allow them to be raised high enough they can be made in sections, as shown in Figs. 5 and 6. In this case the lower section would lock into the upper one, substantially as shown at *d*, Fig. 6, the headed pin *d* working in the slot *h*, Fig. 5, of the upper section of the door, and the door working in guides L L, Figs. 4 and 5, and when elevated the lower door is retained in position by any well-known means.

The corners are united or joined together as follows:

M N O, Fig. 3, are three posts extending from floor to ceiling. The post O is located on the inside of the post M and fixedly attached to it on its edge. The post N is placed alongside of the post O, with the edge abutting against the post M and its side flush with the edge of post M, as shown in Fig. 1. A bolt, *a*, is inserted in the holes *b b*, and a nut is placed on the screw end thereof, thus holding the two sides rigidly and fixedly together. Several of these bolts and nuts are placed in each corner, as shown at *a a a*, Fig. 1. To these posts the sides are attached, having the doors J J.

On the inside of the fender is a lining, R, made of sheet metal, removed a short distance—say an inch or so—leaving flues *v* between the lining and the side. It is not necessary for this lining to extend over the entire inner surface of the fender, as shown in Fig. 1. It should, however, cover such parts of the sides and doors as are in dangerous proximity to the stove. Through the flues *v*, made by the lining and the side, is constantly arising a current of air, which precludes the possibility of the fender taking fire from the heated stove. In case the door is made in sections, as shown in Fig. 5, the lower section will work between the outer flanges L L, within a guide made by fastening cleats to the outside of flange L, as shown at P, Fig. 6, and by the dotted lines in Fig. 5. Should the stove be located at or near the center of the room, then the fender would have to embrace the stove on the four sides, and a pipe like a stove-pipe would extend from the fender to the flue E. Should the stove be located in the corner of the room, then the heater would extend only on two sides of the stove. In

many instances the door only would require the lining R, as this would be sufficient.

The windows J J present the opportunity of viewing the stove during the time of cooking without opening the doors, and also of letting light in. The windows will be used in doors when they are made in sections the same as when not made in sections.

The doors, when made to elevate and lower, will have balancing-weights working by means of cords over sheaves T T, as shown in Figs. 4, 5, and 6. By working the doors up and down the evil arising from the door swinging out into the room is obviated. Through the opening I under the doors enters fresh air, which passes up through the flues *v* and through the fender.

It will readily be seen that by using a heat-fender as herein shown all heated air, gases, and offensive odors arising from cooking or otherwise using the stove will be entrapped and led directly into the chimney through the flue E.

I claim—

1. A heat-fender composed of the separable sections, provided with air-flues, as described, and having the posts M, N, and O, held together by bolts, all constructed and arranged as set forth.

2. A heat-fender composed of sections, provided with the posts M, N, and O, for securing them together, and with the air-flues *v*, and with illuminated doors, as and for the purpose shown and described.

JAMES A. COWLES.

Witnesses:
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