

(No Model.)

J. WISDOM.
SMOKE DEFLECTOR.

No. 444,967.

Patented Jan. 20, 1891.

Fig. 1.

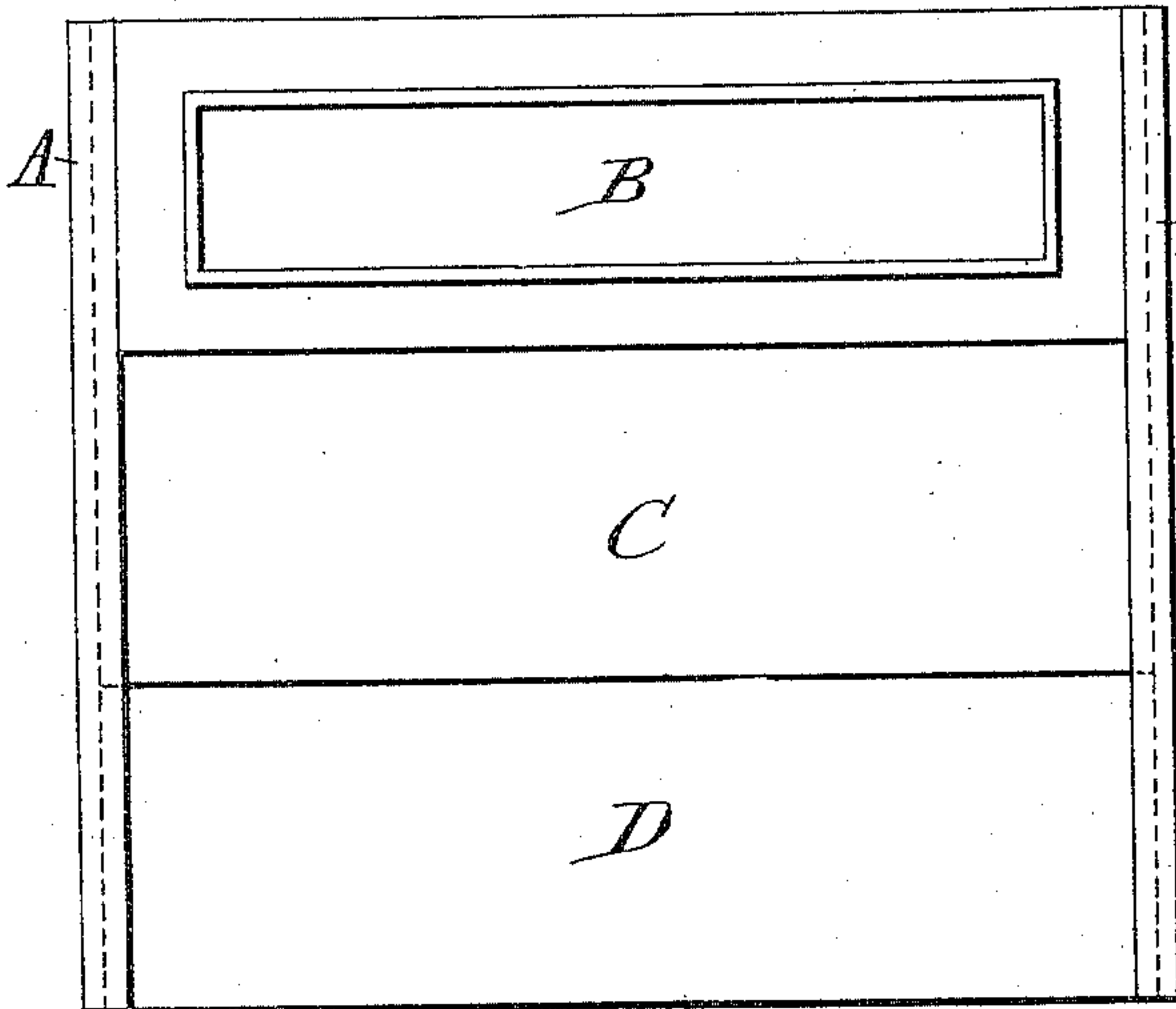


Fig. 3.

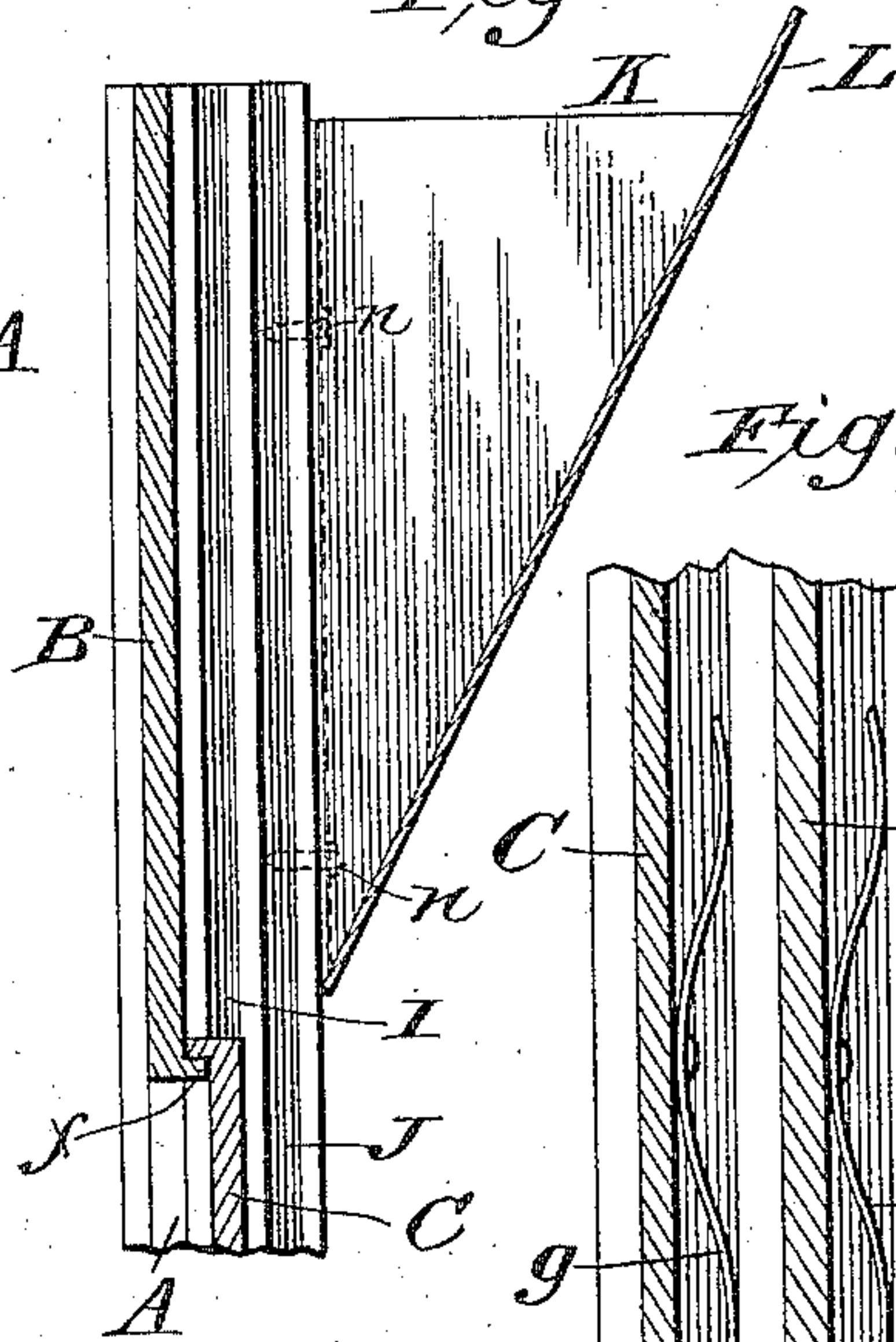


Fig. 5.

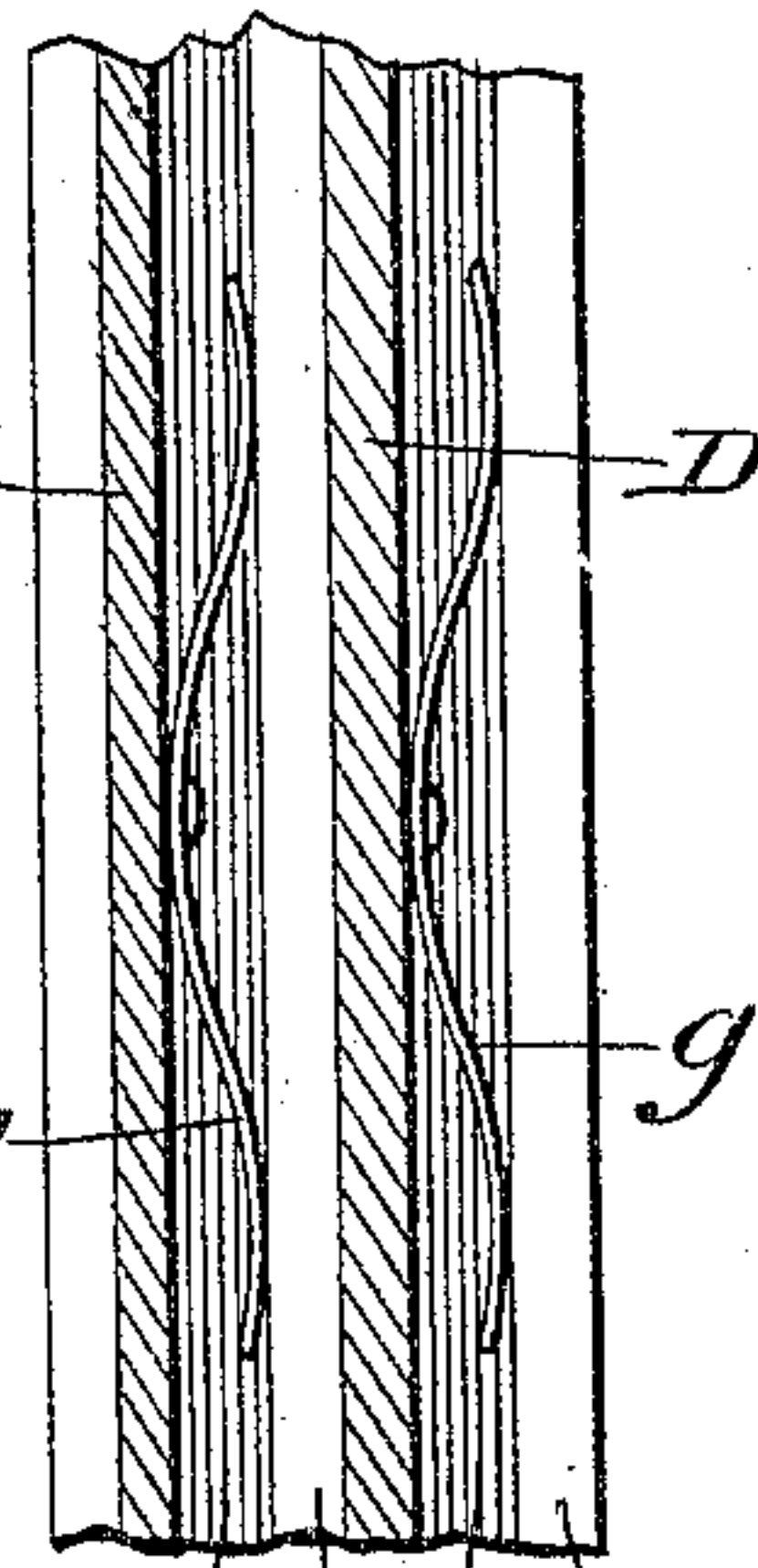


Fig. 2.

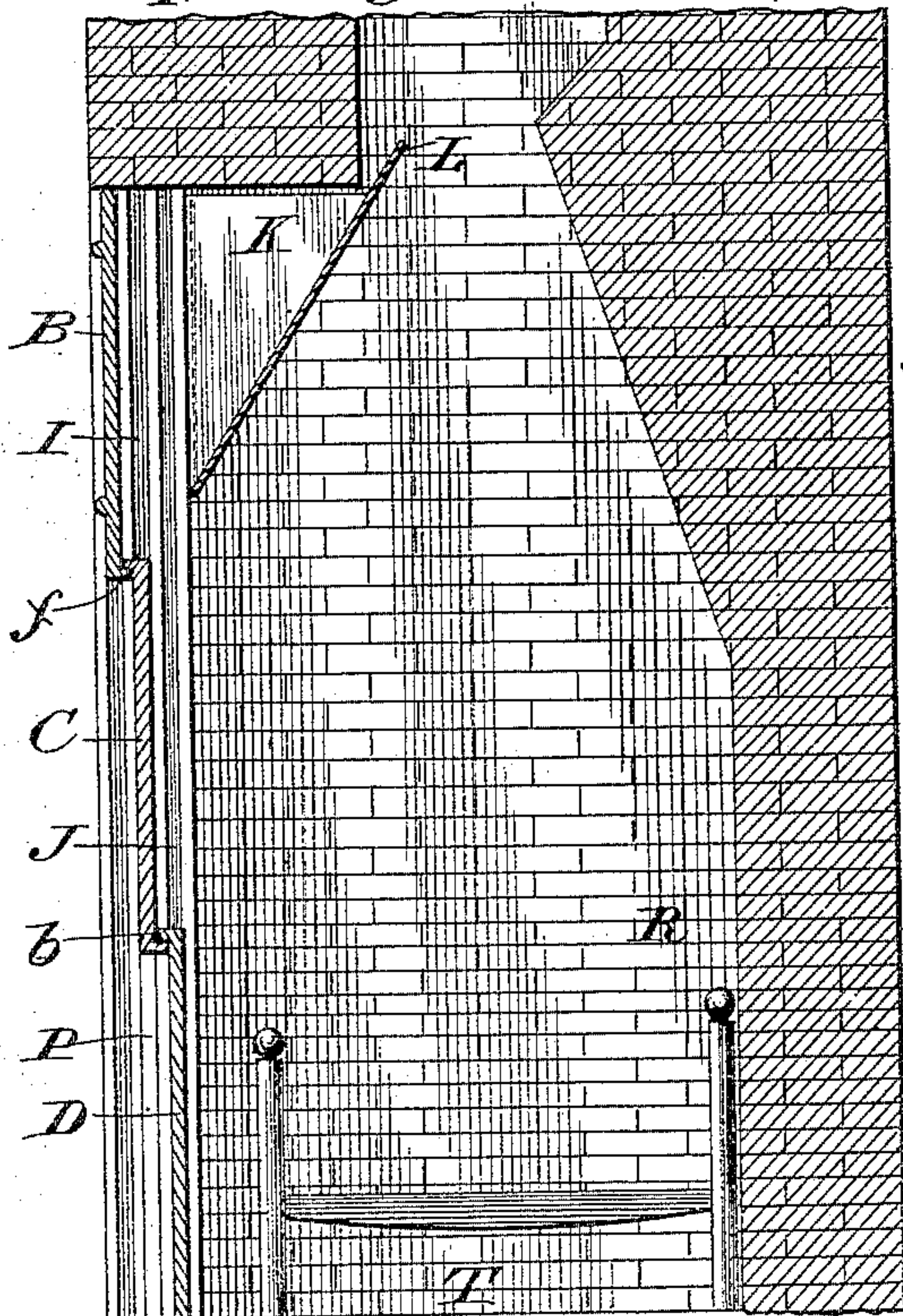


Fig. 4.

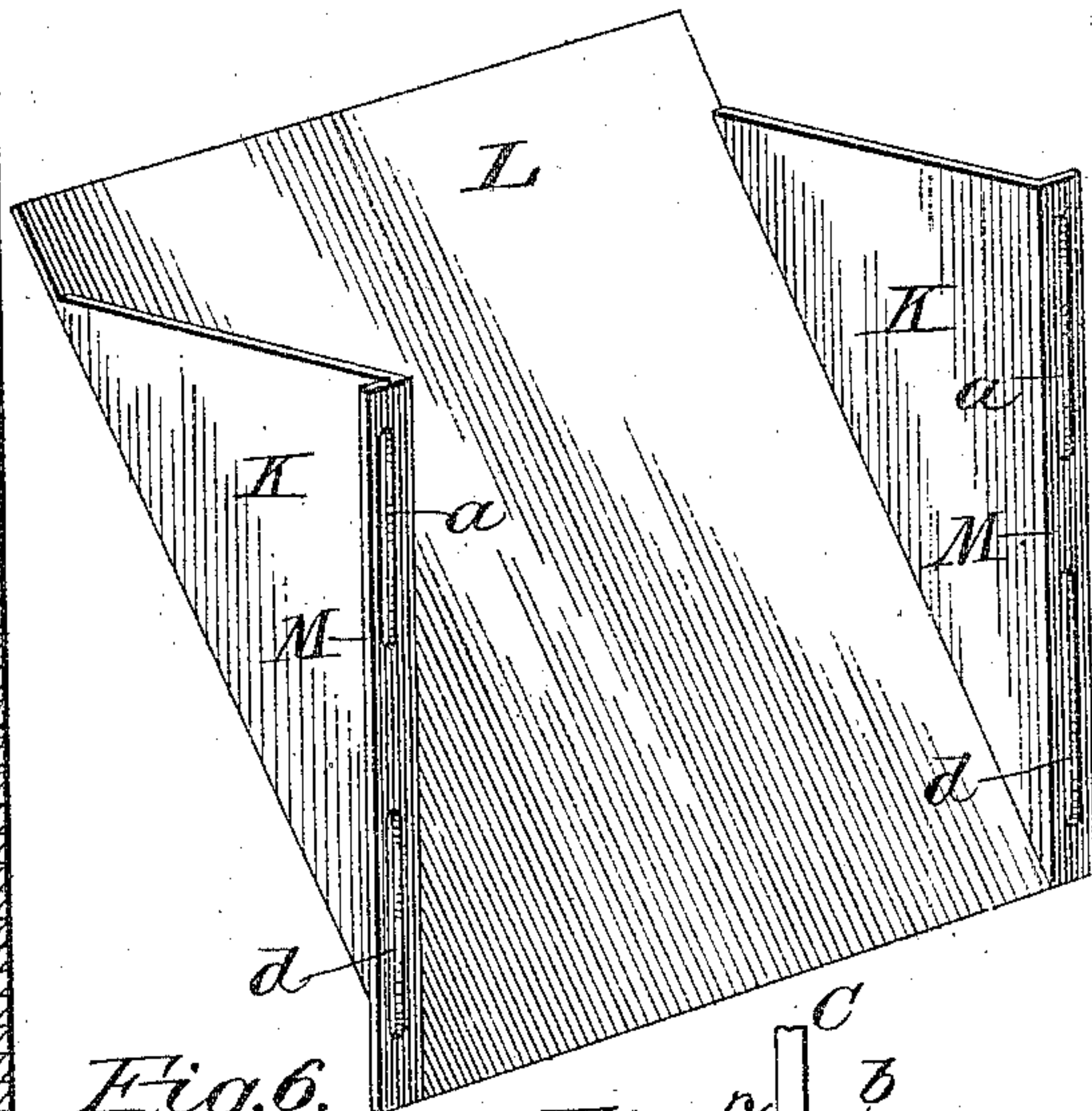


Fig. 6.

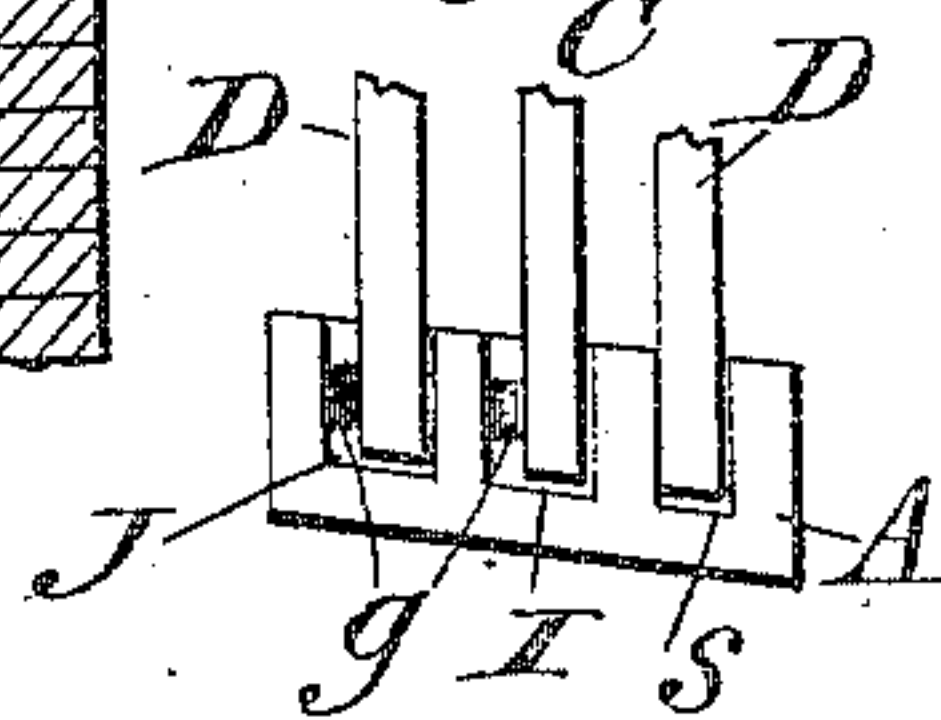
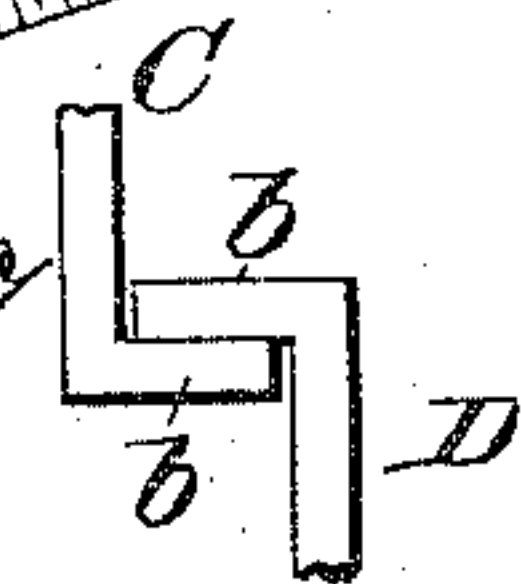


Fig. 7.



Witnesses
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UNITED STATES PATENT OFFICE.

JOHN WISDOM, OF CHICAGO, ILLINOIS.

SMOKE-DEFLECTOR.

SPECIFICATION forming part of Letters Patent No. 444,967, dated January 20, 1891.

Application filed March 3, 1890. Serial No. 342,372. (No model.)

To all whom it may concern:

Be it known that I, JOHN WISDOM, a citizen of the United States, and a resident of Chicago, county of Cook, and State of Illinois, have invented new and useful Improvements in Smoke-Deflectors, of which the following is a specification, reference being had to the accompanying drawings, illustrating the invention, in which—

Figure 1 is a face view of the adjustable fire-board portion of the invention; Fig. 2, a vertical sectional elevation of the fire-board, its frame, and the smoke-deflector in position in a fire-place, taken on line X, Fig. 1. Fig. 3, an enlarged view of the smoke-deflector and the upper portion of the same parts shown at Fig. 2; Fig. 4, a back side elevation of one end of the smoke-deflector enlarged; Fig. 5, a broken elevation of the inside of a portion of one of the frames which support the adjustable fire-boards, showing two of the springs which hold the fire-board plates in position, the same being full size; Fig. 6, a top view of one of the frame-pieces which support the fire-board with the ends of the fire-boards therein, they having a size corresponding to Fig. 3. Fig. 7 shows how the meeting edges of the fire-boards overlap, full size.

This invention relates to an adjustable fire-board which operates in conjunction with a smoke-deflector adjustably attached to the frame of the fire-board that it may be extended upward to form such a throat to the chimney as will insure a proper draft when the fire-board is elevated.

The nature of the invention will be fully understood by the following detail description.

R represents an ordinary fire-place, and N is the breast of the same, and O is the back of the chimney. I employ two metal frame-pieces A, which are made in pairs, and their jamb sides are inclined inward, as shown at Fig. 6, that they may be wedged firmly in between the jambs of the fire-place and shut out any gas and smoke which might otherwise escape into the room. In the inner faces of these two frame-pieces, respectively, are formed three grooves J I S, and in the grooves

S are firmly affixed what I term a "breast-plate" B, which lies wholly in front of the adjustable fire-boards C D. The latter are fitted to run, respectively, in the grooves I J. The fire-boards are preferably made of about No. 12 steel plate. The upper edge of the upper plate is bent outward to meet the inner lower portion of the breast-plate, as shown at F, Fig. 3. The lower portions P of the grooves I are filled with stops P, that the top edge of plate C may not come below the breast-plate B, and the meeting edges of the plates C D are provided with bent overlapping portions b b, that the fire-board at that place may be dust-tight. Springs g g, made of rolled brass, are riveted to the sides of each plates C D, near its ends, to bear against the separating-ribs e n, and serve as friction-supports to hold the plates up in any position desired. In practice the grooves will be about three-eighths of an inch deep and the springs at each end of the plates of the same width. This will be fully sufficient for the purpose.

The smoke-deflector consists of a single stiff plate of metal formed with ends K, which incline inward from the jambs of the chimney, and a back portion L, which pitches back toward the throat thereof. The ends are provided with flat portions M, which are parallel to each other and provided, respectively, with slots a a, through which screws u are to be put to hold the deflector to the inside edges of the frame-pieces A. By loosening the screws the deflector may be adjusted to bring the plate L to a height corresponding to the throat. In the construction shown the throat is so high that the portion L has to extend above the ends K. The extension, however, does not prevent the same deflector from being lowered down and employed in fire-places whose throats are lower down. This deflects the smoke from contact with the under side of the breast N and prevents it from coming into the room, and by the use of these devices almost all faulty fire-places can be made to have sufficient draft by lessening the size of the throat and air-supply, thus making a small chimney or short one serve a good purpose.

I claim and desire to secure by Letters Patent of the United States—

In adjustable fire-board fronts for fire-places, the side vertical frame-pieces of such
5 front inclined inward to fit the jambs of the fire-place, in combination with a smoke-deflector which is adjustably secured to the end frame-pieces, inclined back from them, and

provided with ends which are also inclined inward to fit the jambs to deflect smoke, as is specified.

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