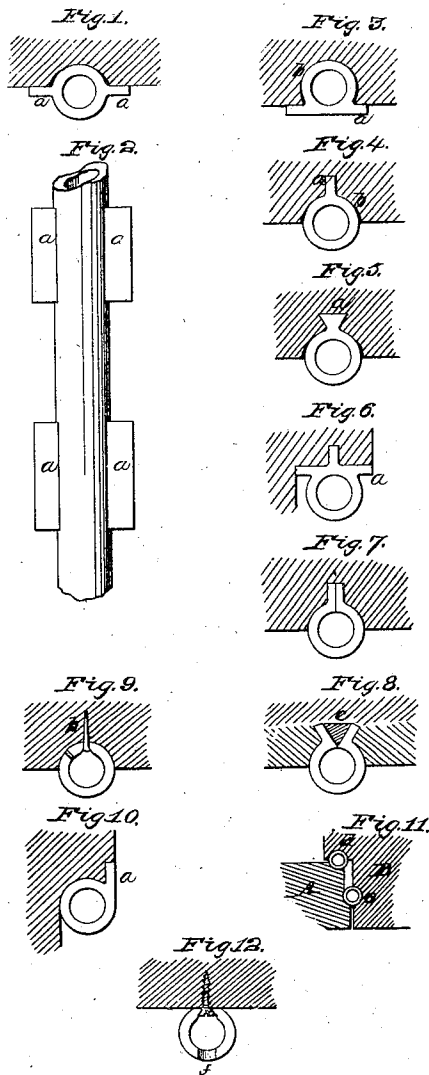


D. E. Simmes.

Weather Strips.

N^o 40,910.

Patented Nov. 12, 1867.



Witnesses:
F. C. Simmes
John K. French

Inventor:
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United States Patent Office.

DANIEL E. SOMES, OF WASHINGTON, DISTRICT OF COLUMBIA.

Letters Patent No. 70,910, dated November 12, 1867.

IMPROVED ELASTIC PACKING FOR THE JOINTS OF DOORS, LIDS, AND THE LIKE.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, DANIEL E. SOMES, of Washington, District of Columbia, have invented new Elastic Air and Water-Tight Packing-Tubes, to be applied as hereinafter described; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the annexed drawings, making part of this specification, in which the different figures represent cross-sections of India-rubber or other elastic tubing or piping, or strips of India rubber or other suitable material formed into tubes or pipes, either cylindrical or otherwise shaped, with their edges joined by adhesion to each other or not, in such case as may be deemed expedient, which tubes or pipes shall have flanges, lugs, or plates projecting from them continuously or at intervals along their lengths, for the purpose of securing the tubes in place as packing in doorways, doors, windows, drawers, lids or covers of refrigerators and other boxes, chests, or vessels.

Figure 1 shows a section of piping, with a strip or flange, *a*, projecting from each side, whereby it is to be secured in position, while a groove made in the jamb or rebate receives the body of the tube, or a portion of it, as shown at *b*. A similar groove may be made in the door or lid to partially receive the other side of the tube. The strip or flange *a* is to be made in one piece with the tube, and may be continuous or project only at intervals, as shown in Figure 2.

Figure 3 shows a modification of the double-flanged tube, so arranged that nearly the whole diameter of the tubing may be encased in a groove to receive it; or it may stand out from the surface to which it is attached, and be received, if necessary, in a groove in the door or lid which shuts against it.

Figure 4 shows the tube or pipe with only one flange. The flange in this case will be so shaped as to fit into a dove-tailed groove, as in Figure 5, whenever circumstances will allow. Instead of a flange, a series or row of points may project from one side of the tube, to be received and held in holes punched or bored into the material of the door, lid, or frame.

Figure 6 represents a section of pipe with three flanges, so that while one is received in a groove the others may be secured to the surface, as in figs. 1 and 3.

Figures 7 and 8 show a narrow sheet or strip of elastic material so folded that its bight shall form the tube, while its edges form a flange, by which it is to be held in place, like fig. 4, or, by means of a key, *c*, fig. 8, to be dove-tailed, as in fig. 5.

Figure 9 is a section of a tube split lengthwise on one side, so that it may be opened and fastened from its inside, when its elasticity will cause it to return to and maintain its tubular form.

Figure 10 is another modification of the tube having but one flange.

Figure 11 is a cross-section of a portion of a door, *A*, and jamb *B*, showing that the tubing may be placed in the rebate, as at *d*, or in the jamb opposite the edge of the door, as at *e*, or in both places.

Figure 12 shows a tube with a hole, *f*, or a row or series of them, on one side, through which the nails, screws, or their equivalents, will pass, to fasten it in place by the inner surface of the tube opposite to the holes.

It may be found expedient, under some circumstances, to make the tubes and their flanges in separate parts, and afterwards unite them; but, whenever it is practicable, I prefer to make them of one piece, and in one operation.

The grooves in the door or jamb, or its equivalent, will not be greater in depth than will allow the tube to be compressed so that it will tightly fill the space between the door or lid and its seat, and accommodate itself to all irregularities arising from defective hanging, shrinkage, settling, &c., &c.

This packing, when properly secured in any location where it may be required, will be found to possess the valuable qualities of being air and water-tight, while its elasticity will prevent any noise from slamming or sudden falls.

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

1. An elastic tube having a flange, lug, or plate, or more than one of either, or their equivalents, substantially as herein described and for the purpose set forth.
2. An elastic tube prepared by splitting, as in fig. 9, or by making holes *f*, as in fig. 12, or in any equivalent manner, for the purpose set forth.

D. E. SOMES.

Witnesses:

F. C. SOMES,
JOHN R. FRENCH.