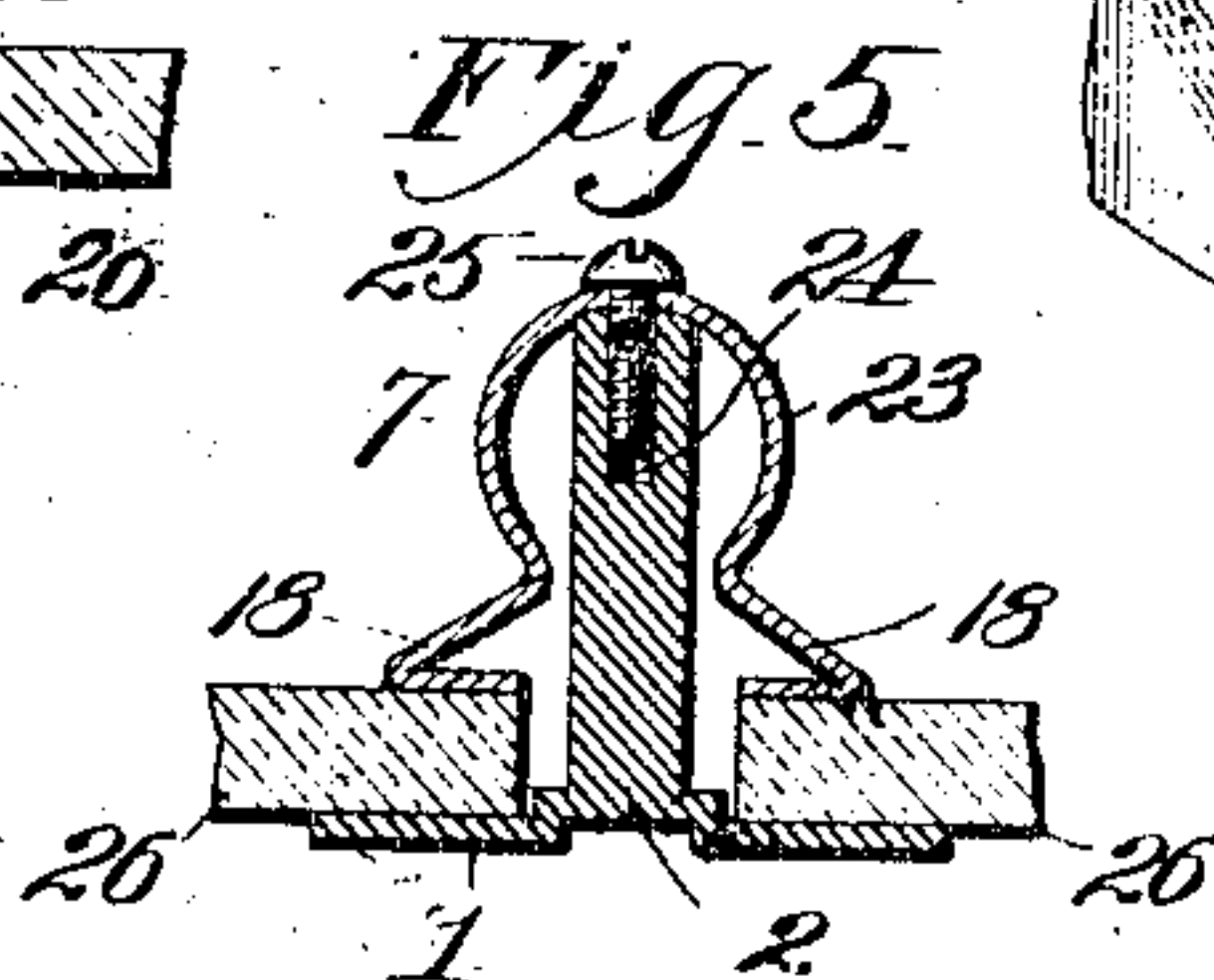
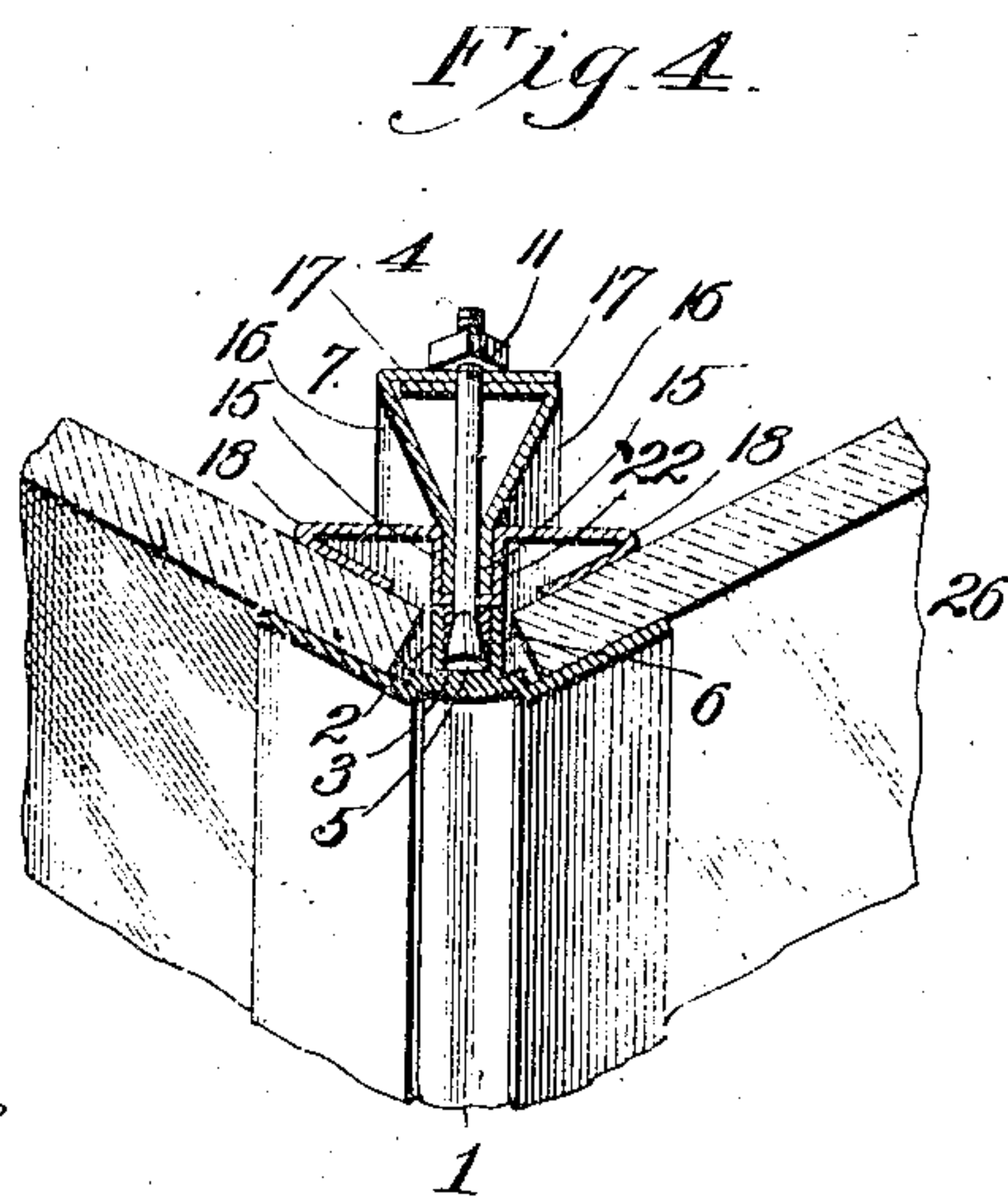
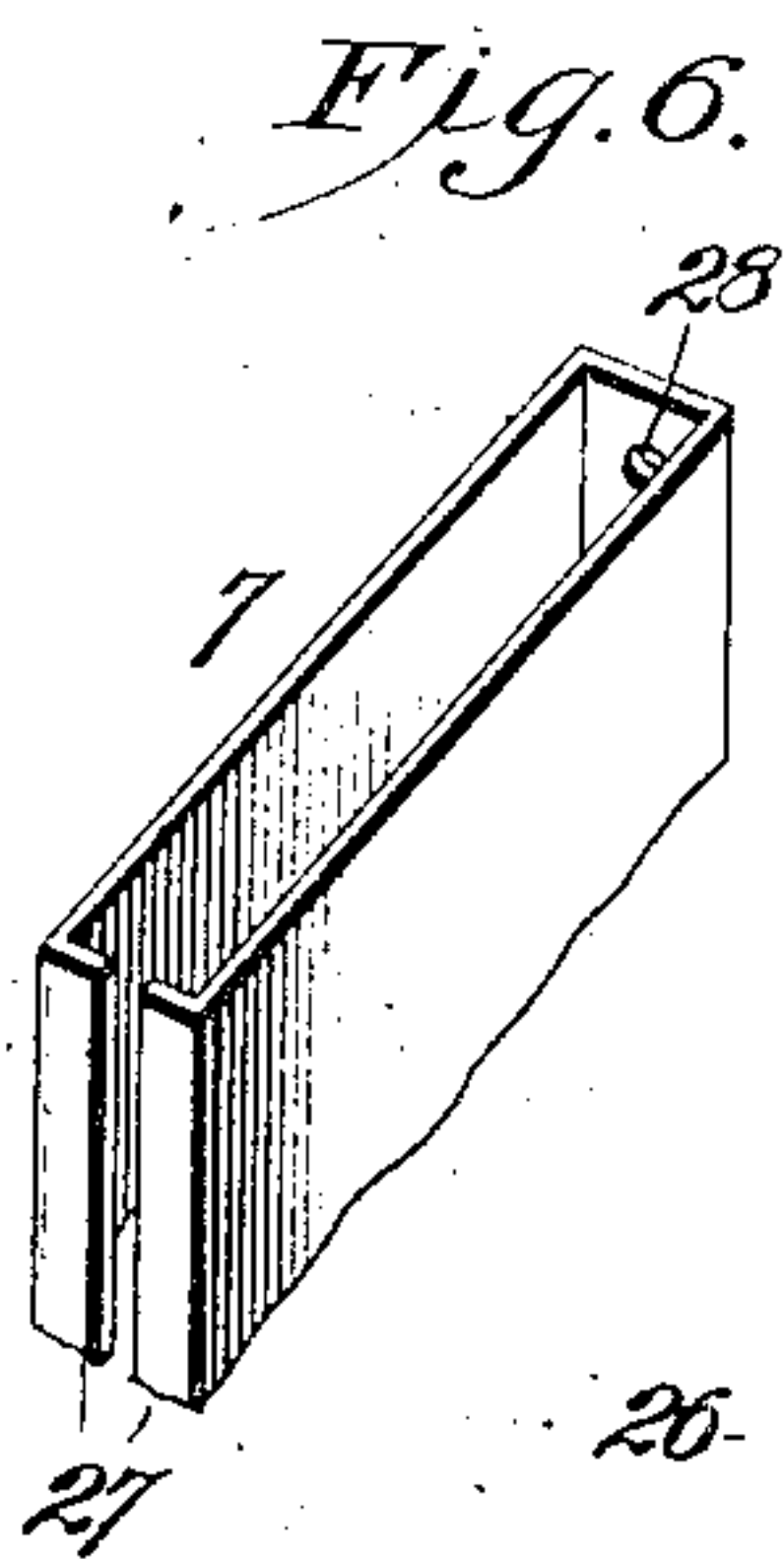
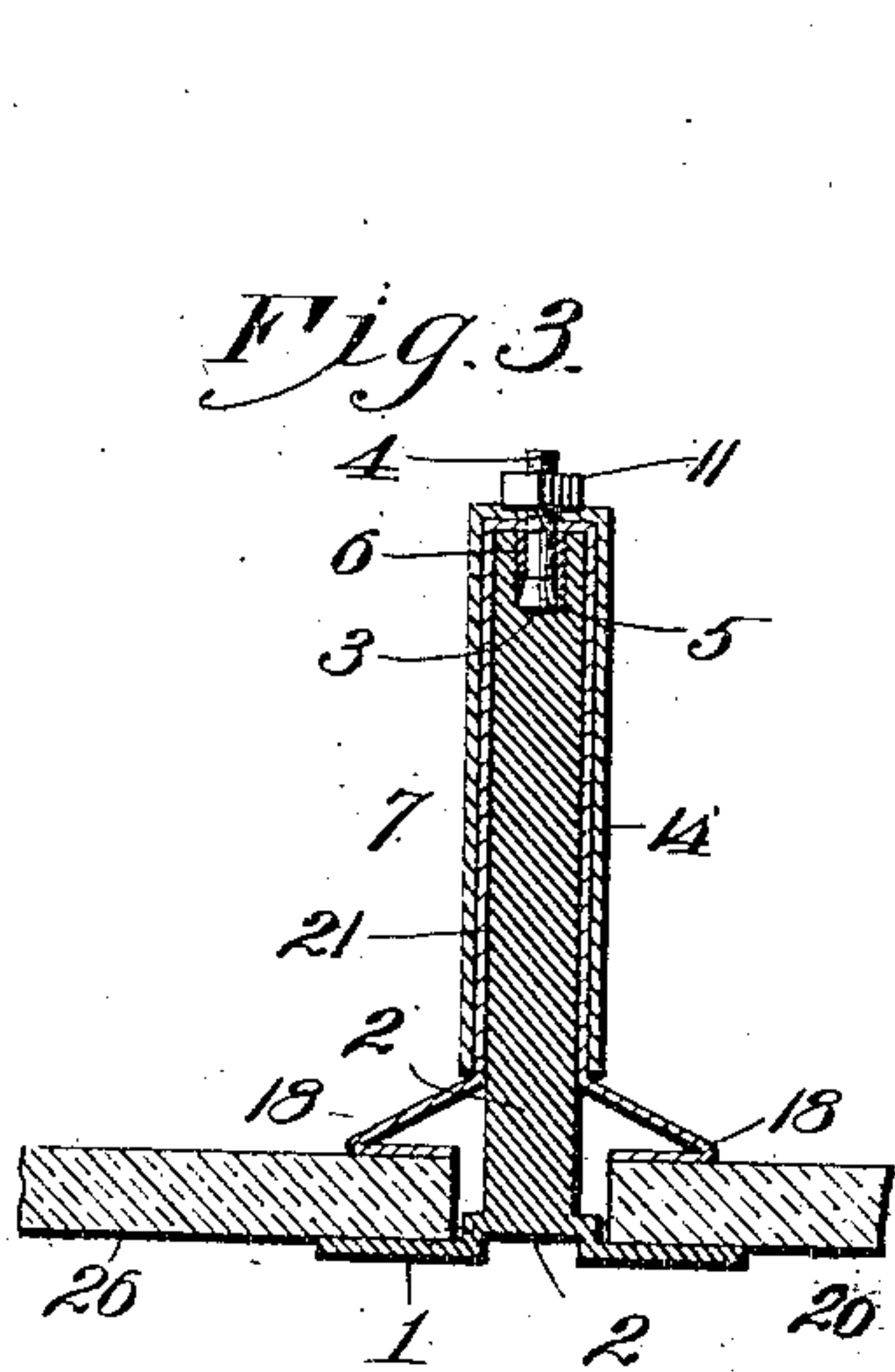
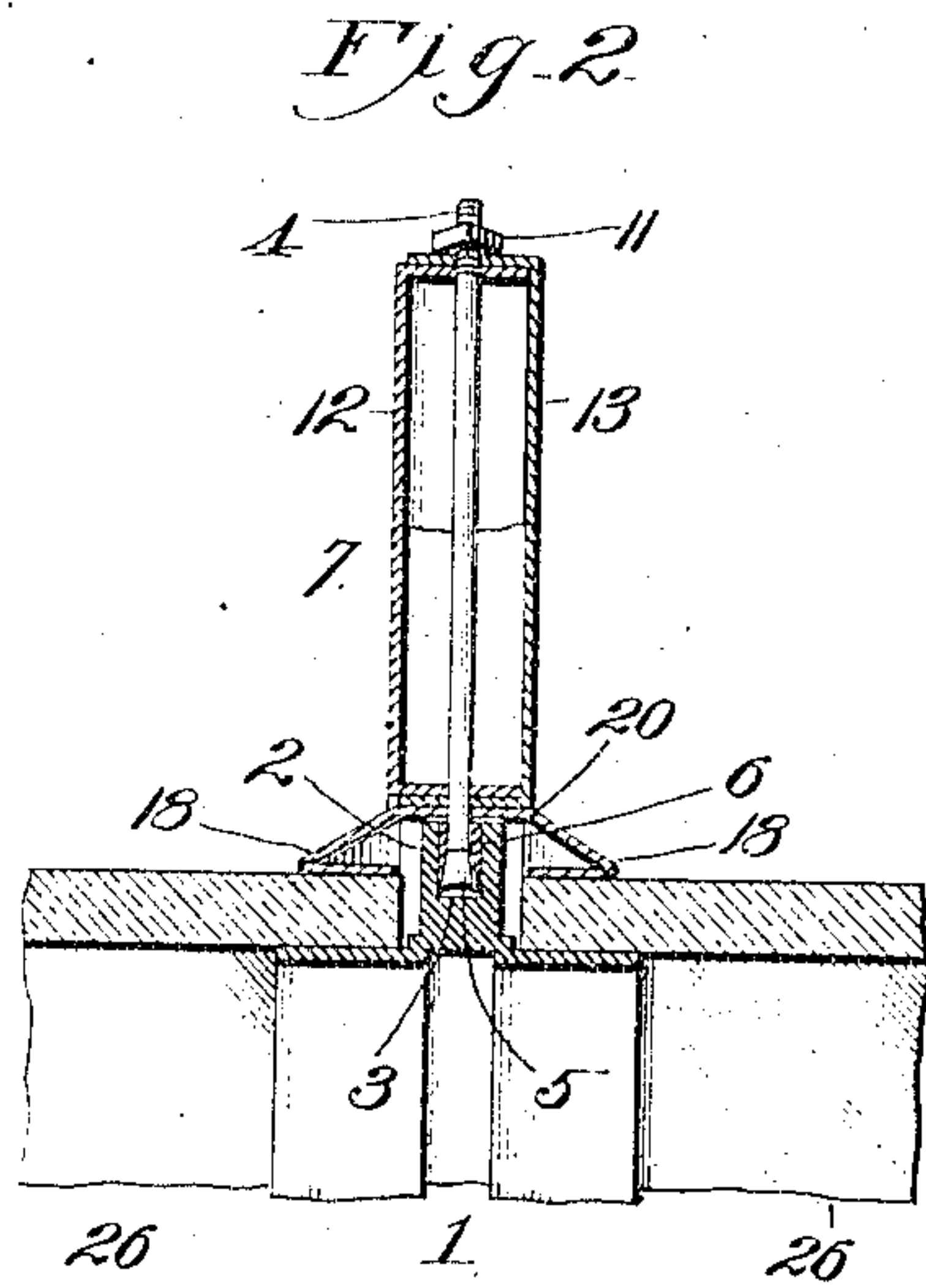
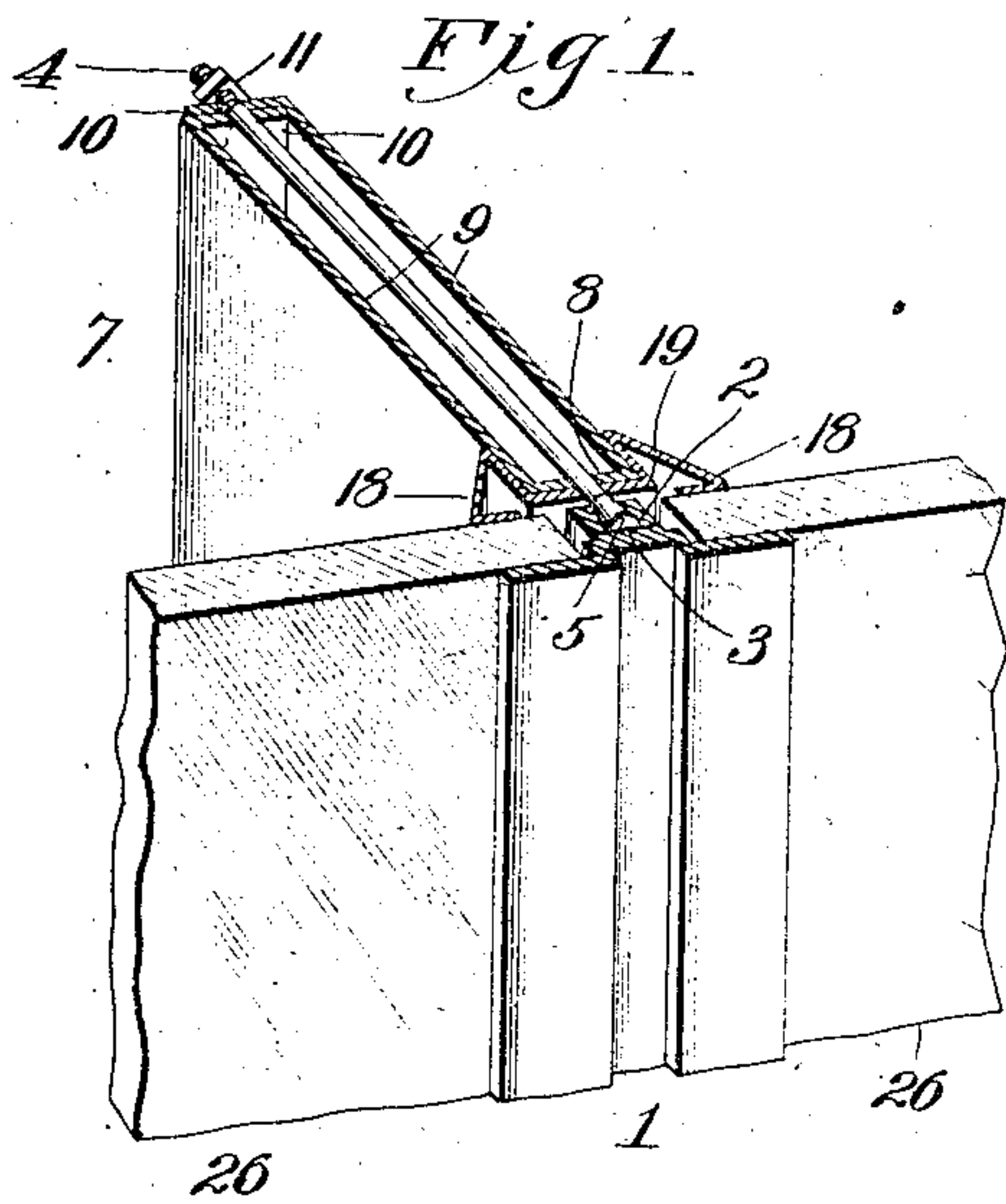


No. 837,640.

PATENTED DEC. 4, 1906.

F. J. PLYM.
STORE FRONT CONSTRUCTION.
APPLICATION FILED FEB. 10, 1906.



Witnesses:
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UNITED STATES PATENT OFFICE.

FRANCIS J. PLYM, OF KANSAS CITY, MISSOURI.

STORE-FRONT CONSTRUCTION.

No. 837,640.

Specification of Letters Patent.

Patented Dec. 4, 1906.

Application filed February 10, 1906. Serial No. 300,407.

To all whom it may concern:

Be it known that I, FRANCIS J. PLYM, a citizen of the United States, residing at Kansas City, in the county of Jackson and State of Missouri, have invented certain new and useful Improvements in Store-Front Construction, of which the following is a specification.

This invention relates to store-front construction of that class exemplified by my application for patent on similar construction filed July 8, 1905, Serial No. 268,833, and allowed October 24, 1905, the object of the present invention being to generally improve the construction embodied in said allowed application.

To this end the invention consists in certain novel and peculiar features of construction and combination of parts, as hereinafter described and claimed, and in order that it may be fully understood reference is to be had to the accompanying drawings, in which—

Figure 1 represents a sectional perspective view of a store-front construction embodying my invention. Fig. 2 is a sectional perspective view of a slightly-modified construction. Fig. 3 is a horizontal section of a second modification of the structure. Fig. 4 is a sectional perspective view of a third modification of the structure. Fig. 5 is a horizontal section of a fourth modification of the structure. Fig. 6 is a detail perspective view of the preferred type of back piece.

In the said drawings, 1 indicates a front piece. 2 indicates a longitudinal rib at the inner side of the front piece and brazed or otherwise rigidly secured to the front piece, as indicated in Fig. 1, or formed integrally with said piece, as shown in Figs. 2 to 5, inclusive. At suitable intervals this rib is provided with openings or sockets 3 to receive the heads 5 of tie-bolts 4. In Fig. 1 the holes (one only appears in each figure) are of reduced diameter at the inner face of the rib to retain the head therein, the front piece preventing opposite or forward movement of the bolts. In the remaining figures the openings or sockets are of uniform diameter to permit the heads of the bolts to be inserted from the inner side of the rib, and said bolts are then secured by filling said openings or sockets with lead 6 or any other suitable material which will harden and retain the heads in place.

7 indicates back pieces in Figs. 1 to 4 and Fig. 7. In Fig. 1 the back piece is formed

of sheet metal bent to oblong rectangular form in cross-section, 8 indicating the base or cross piece, 9 the sides, and 10 flanges formed at the inner margin of said sides and overlapping each other, the bolts 4 extending through said base and flanges, as shown, and being retained in position by nuts or taps 11, engaging their inner or threaded ends.

In Fig. 2 the back piece is shown as composed of two pieces of sheet metal 12 and 13, of U shape in cross-section, with the flanges of piece 12 fitting snugly within the flanges of piece 13, and extending through said flanges are the bolts 4, engaged at their inner ends by the nuts or taps 11.

In Fig. 3 the back piece 7 is of U shape in cross-section, as shown at 14, and is disposed with its open side toward the front piece, and in this figure it will be noted that the rib 2 is of greater depth than said cross-piece and projects into the latter. The bolts 4 project inwardly from said rib through the base or bridge portion of said back piece and are engaged inward of the latter by the nuts or taps 11.

In Fig. 4 the back piece 7 is of angular shape in cross-section and consists of two similar pieces each comprising parallel outer portions 15 and rearwardly-diverging side portions 16, provided at their inner margins with overlapping flanges 17, the bolts 4 in this instance extending between the outer and side portions and through said flanges, the nuts or taps 11 engaging the inner ends of the bolts inward of said flanges.

18 indicates resilient flanges disposed at opposite sides of the rib and preferably of V shape in cross-section, the said flanges being adapted to exert a pressure toward the front piece. In Fig. 1 said flanges are integrally formed with a plate 19 of U shape in cross-section, which embraces the front or outer edge and the contiguous portions of the sides of back piece 7, and to reliably retain said plate in position the bolts 4 extend through it. In Fig. 2 the flanges 18 are integrally formed with flat plate 20, which is interposed between the back piece and the rib and is also mounted on the bolts 4. In Fig. 3 the flanges 18 are integrally formed with a plate 21 of U shape in cross-section, but of greater depth than and disposed in the opposite direction from the corresponding part of Fig. 1. This plate 21 snugly embraces rib 2 and is snugly embraced by back

piece 14, the bolts 4 extending through plate 21. In Fig. 4 the flanges 18 are formed integrally with a plate 22, U shape in cross-section and snugly embracing the front portions 15 of the back piece, the bolts 4 in this figure also extending through said plate 22 to guard against slippage of the same.

In Fig. 5 the back piece as a separate element is dispensed with, and the flanges 18 are formed integrally with a substantially cylindrical plate 23, fitting around the rib 2. In this construction the rib is provided in its inner edge with threaded passage 24, engaged by a screw-bolt 25, extending outwardly through the cylindrical plate 23.

26 indicates the window panes or lights, the same fitting snugly between the front piece and the resilient flanges 18, this relation being made secure by screwing home the nuts or taps 11 on bolts 4. As a result said window panes or lights are held by said resilient flanges with a yielding pressure, which therefore accommodates window panes or lights of varying thickness, as well as expansion and contraction of the latter, which occur under varying temperatures.

It will be noted that the constructions illustrated in the drawings differ from that of the allowed application in that the fastening means are accessible only from the inner side of the store-front, and consequently cannot be loosened or withdrawn from the outside. In other respects the invention forming the subject of this application is in principle the same as that covered in the allowed application.

In Fig. 6 the back piece 7 consists of a piece of sheet metal of substantially the same form as the corresponding part of Fig. 3, the side walls of the back piece of Fig. 6 being equipped at their front margins with inwardly-projecting flanges 27, which terminate a distance apart about equal to the diameter of bolts 4, in order that said bolts may extend through the slot between them and through holes 28 in the base portion.

From the above description it will be apparent that I have produced a store-front construction which is obviously susceptible of change in minor particulars without departing from the principle of construction involved.

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

1. A sash-bar or mullion, comprising a front piece and rib projecting from the rear side thereof, a back piece rearward of the front piece, a tie-rod secured at its front end to said rib and extending through the back piece, a plate interposed between the rib and the back piece and provided with a hole through which said rod extends and with a

resilient flange at one side of the back piece and rearward of the front piece, and means engaging said rod and back piece to cause the latter to press said interposed plate toward said rib.

2. A sash-bar or mullion, comprising a front piece and rib projecting from the rear side thereof, a back piece rearward of the front piece, a tie-rod secured at its front end to said rib and extending through the back piece, a plate interposed between the rib and the back piece and provided with a hole through which said rod extends and with a resilient flange at each side of the back piece and rearward of the front piece, and means engaging said rod and back piece to cause the latter to press said interposed plate toward said rib.

3. A sash-bar or mullion, comprising a front piece and rib projecting from the rear side thereof, a back piece rearward of the front piece, a tie-rod secured at its front end to said rib and extending through the back piece, a plate interposed between the rib and back piece and provided with a hole through which said rod extends and with a resilient flange at each side of the back piece and rearward of the front piece, and a nut engaging the rear end of the tie-rod and adapted to cause the back piece to press said interposed plate toward the rib.

4. A sash-bar or mullion, comprising a front piece and rib projecting from the rear side thereof, a back piece rearward of the rib, a tie-rod secured at its front end in the rib and projecting rearwardly therefrom and slidingly through the back piece, a plate interposed between the back piece and rib and having an opening through which said tie-rod extends and a pair of resilient flanges at its opposite sides embracing opposite sides of the back piece, and means engaging said rod and back piece to cause the latter to press said interposed plate toward said rib.

5. A sash-bar or mullion, comprising a front piece having a rearwardly-projecting rib, a tie-rod projecting rearwardly from the rib and having a head at its front end secured in said rib and incapable of endwise movement, a back piece fitting slidingly on said rod, a plate interposed between the rib and back piece and provided with an opening through which said rod extends and with resilient flanges at opposite sides of said rib and back piece, and means engaging said rod and back piece to cause the latter to press said interposed plate toward said rib.

In testimony whereof I affix my signature in the presence of two witnesses.

FRANCIS J. PLYM.

Witnesses:

H. C. RODGERS,
G. Y. THORPE.