

No. 843,163.

PATENTED FEB. 5, 1907.

T. F. McCARTHY.
COLUMN SUPPORT.
APPLICATION FILED JUNE 15, 1906.

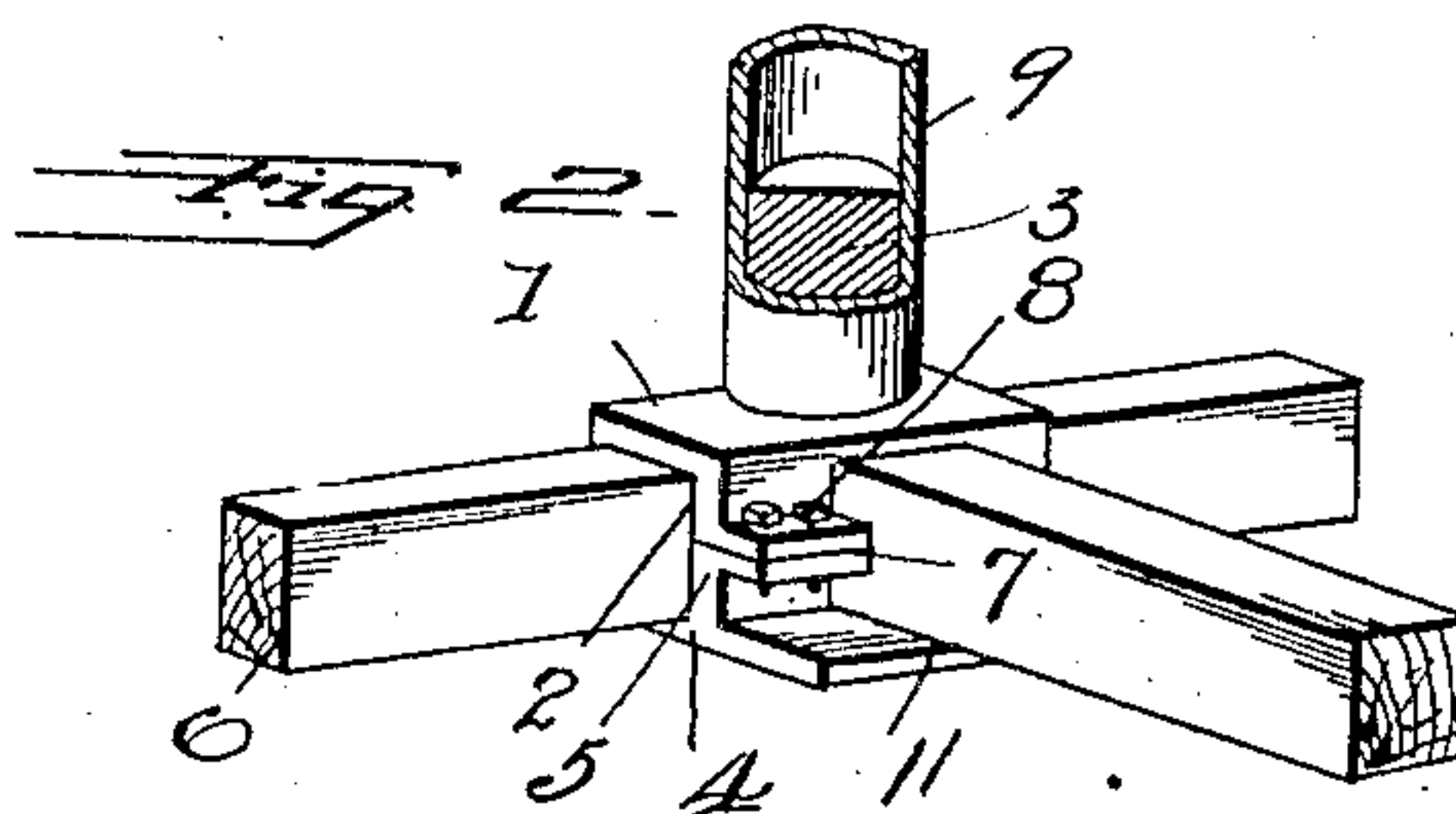
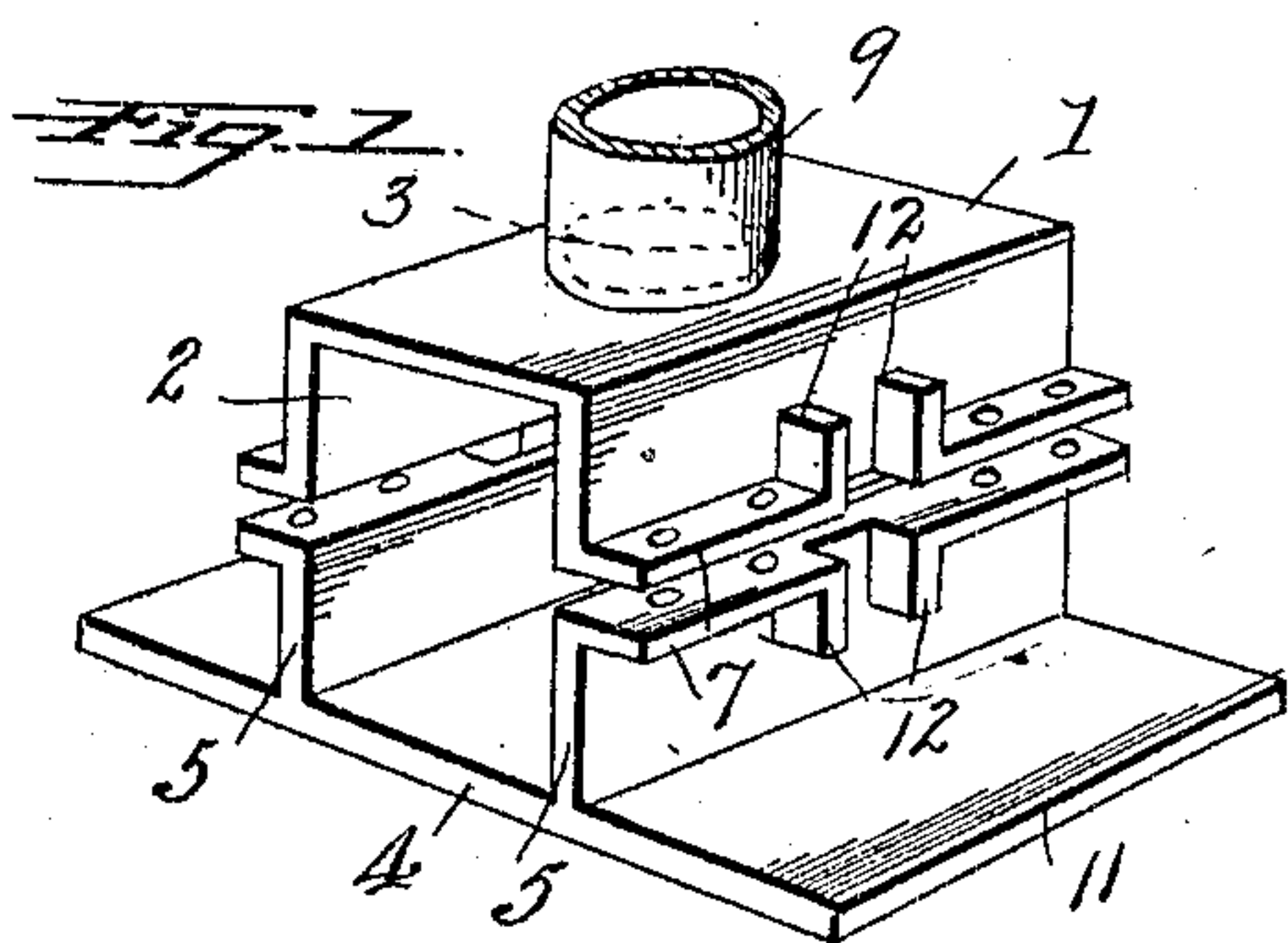


Fig. 3 Fig. 4

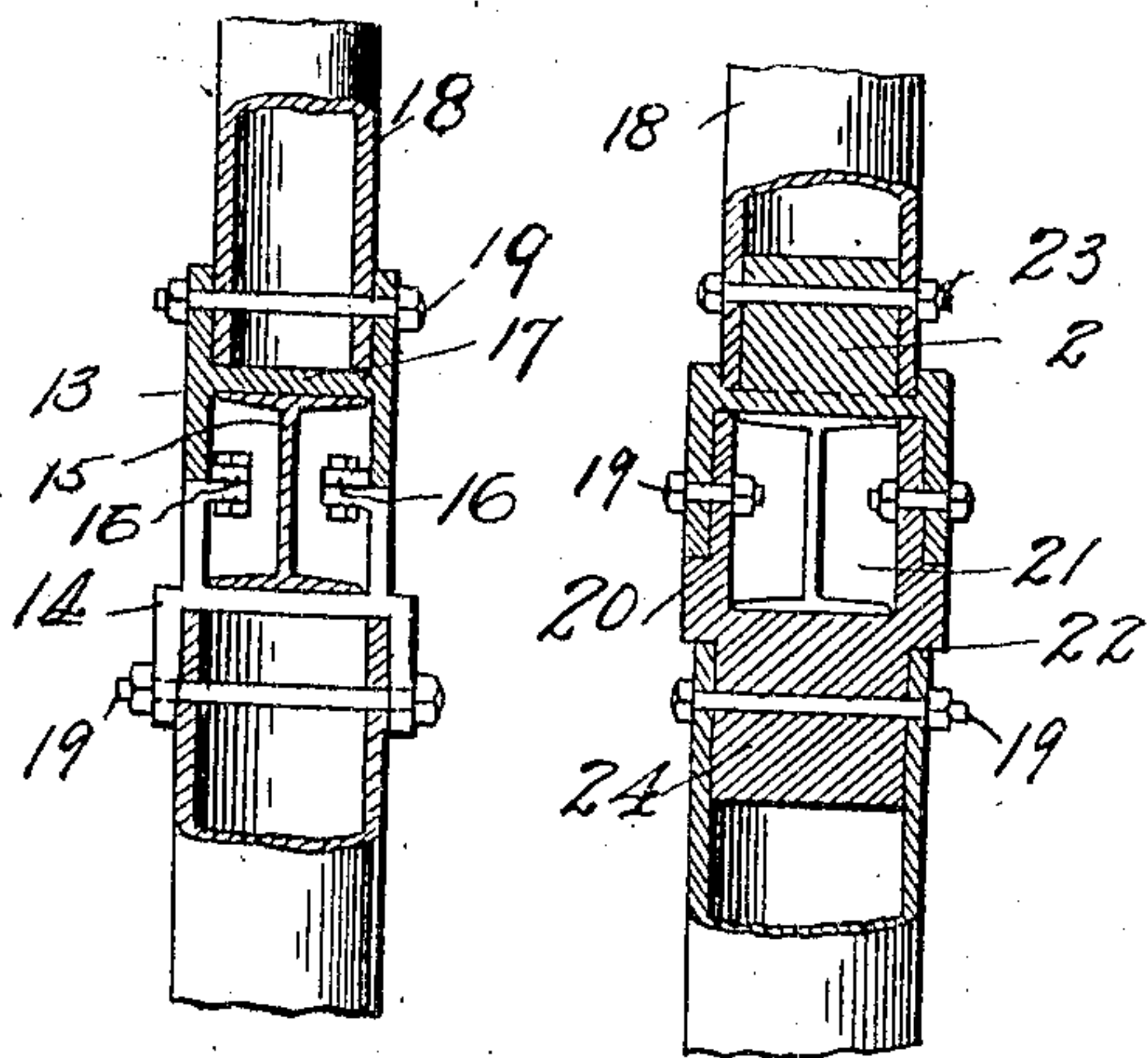


Fig. 5

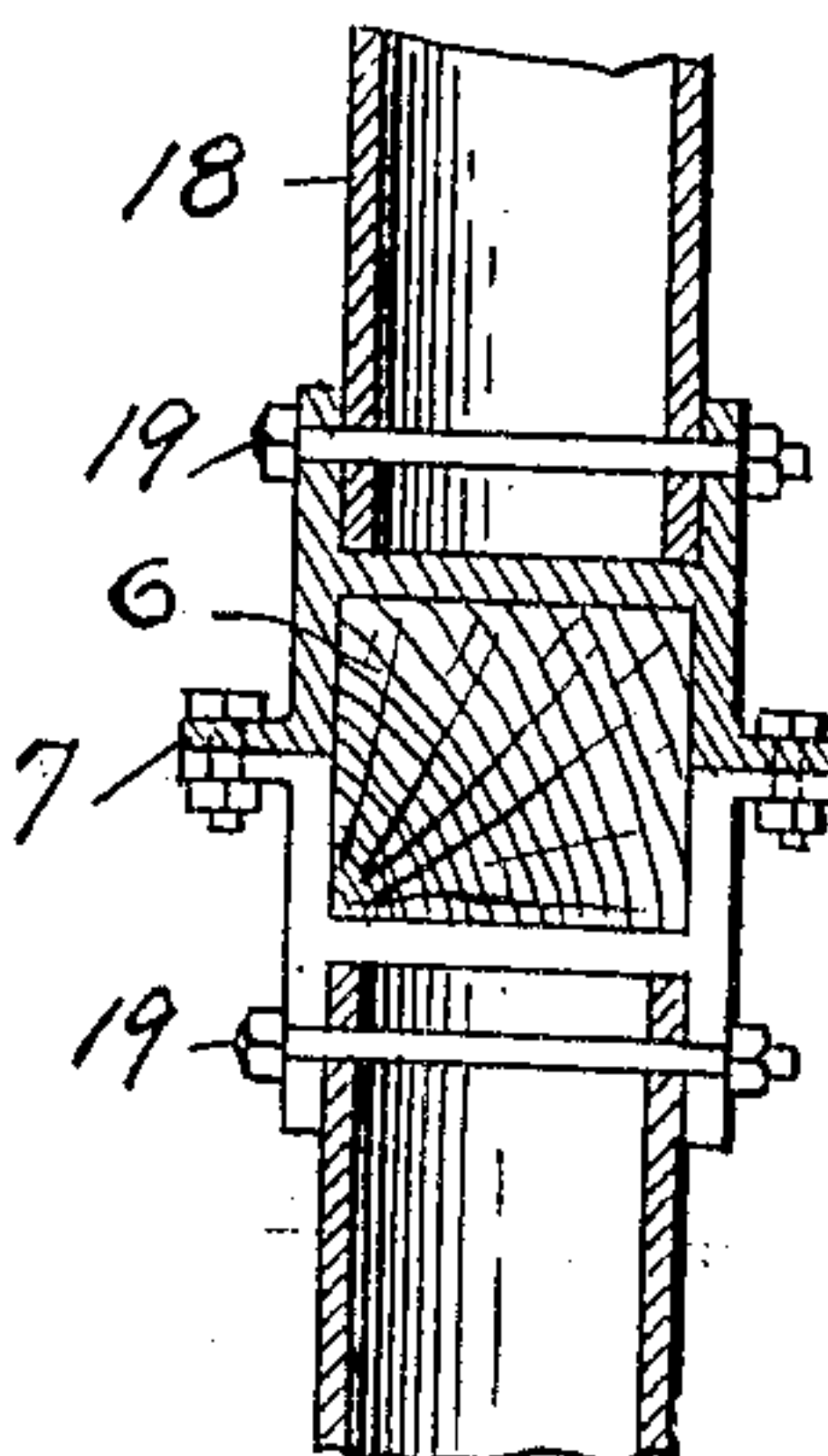
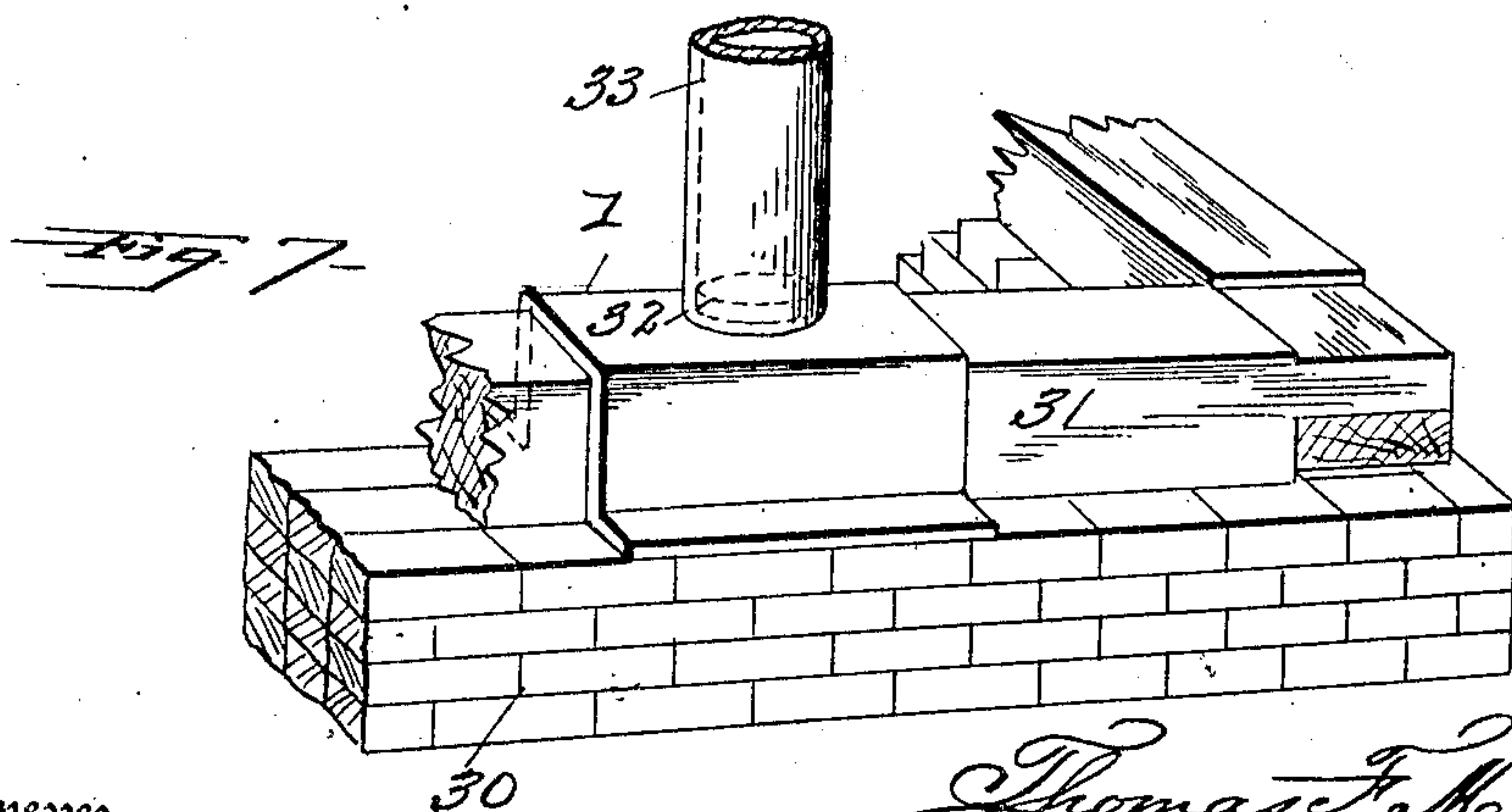
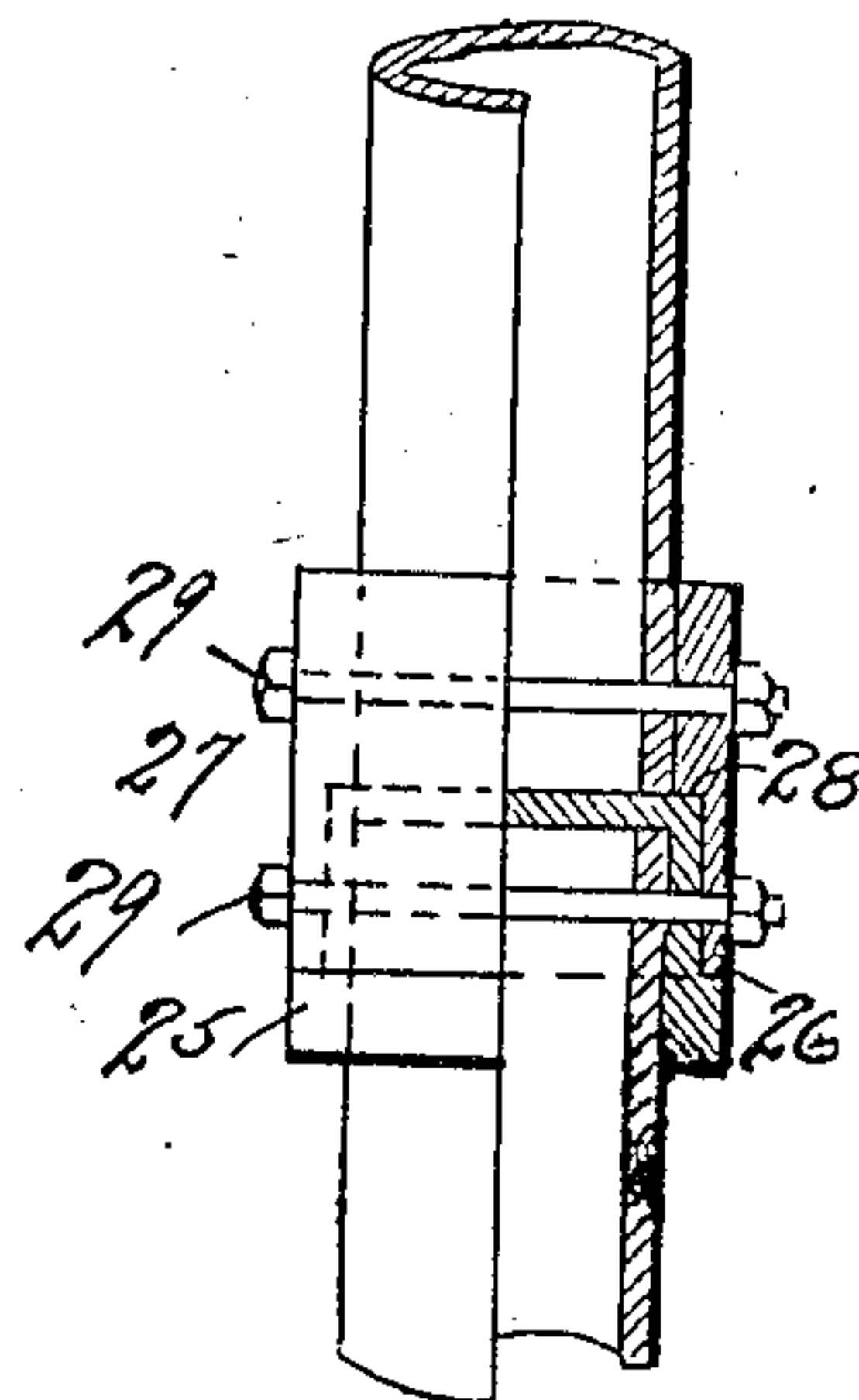


Fig. 6



Witnesses

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COLUMN-SUPPORT.

No. 843,163.

Specification of Letters Patent.

Patented Feb. 5, 1907.

Application filed June 15, 1906. Serial No. 321,851.

To all whom it may concern:

Be it known that I, THOMAS F. MCCARTHY, a citizen of the United States, residing at Waltham, in the county of Middlesex and State of Massachusetts, have invented certain new and useful Improvements in Column-Supports, of which the following is a specification.

My invention relates to improvements in column-supports, and refers in particular to a device adaptable for general building construction to serve the purpose of making a secure joint between the posts or columns and the beams or girders.

The object of my invention is the provision of means for connecting the adjoining ends of posts and to securely tie the girders or beams at such joint in such a manner as to leave the girder of continuous length and unutilized. In this manner wood girders may be used in conjunction with metal columns, and the parts will be securely held together.

A further object of my invention is to provide a joint for building construction which will be of simple, durable, and inexpensive construction and will be thoroughly practical and efficient for all purposes.

To attain the desired objects, my invention consists of clamping members adapted to receive a girder, each of said members provided with means for securing a post or column thereto.

My invention further consists of a column-support and joining means embodying certain other novel features of construction, combination, and arrangement of parts, as herein set forth.

Figure 1 is a detail perspective view of my improved joint and column-support. Fig. 2 is a similar view of the device as in actual use, parts being broken away to more fully illustrate the joint. Fig. 3 is a detail sectional view of a slightly-modified form of the invention used for tying I-beams and superposed columns. Fig. 4 is a similar view of another modification used for the same purpose. Fig. 5 is a detail sectional view of the invention most commonly used for making a joint between metal columns or posts and wooden girders or beams. Fig. 6 is a detail view of a modified construction for tying the adjoining ends of superposed columns. Fig. 7 is a detail view in perspective of the invention as adapted for supporting a column upon an ordinary wooden sill.

Reference being had to the accompanying

drawings, the numeral 1 designates the upper clamping member or plate, which is formed on the lower side with a recessed or channeled portion 2 and upon the upper face is provided with a boss or stud 3. (See Fig. 2.) The lower clamping member 4 is in the form of a flat plate provided near its central portion with the upstanding flanges 5, adapted to cooperate with the channel of the upper clamping member and form a box for the reception of the rectangular beam or girder 6. Flanges 7 are formed at the meeting edges of the two clamping members and are adapted to receive the securing-bolts 8 for fastening the members together. The hollow metal columns 9 engage the studs on the clamping members, and bolts may be passed there-through to secure the parts together. Thus it will be seen that the girder is not weakened in any manner at its joint with the columns, but is of continuous unutilized length. Where several girders come together, as in Fig. 2, one of the girders is of continuous length, as described, and the other girders rest upon the shelf or extension 11 on the base of the lower clamping member. The securing-flanges of the members are cut away to receive the end of the girder, and at such point the flanges are continued at right angles, forming ears 12 to engage the sides of the girder and secure the end of the girder to the clamping members. The construction shown in Fig. 1 is adapted to have a girder pass therethrough and a girder abut on either side thereof; but slight changes may be made in the construction to accommodate different numbers of girders.

When all-metal construction is employed, as shown in Fig. 3, the upper and lower clamping members 13 and 14, respectively, are adapted to have the I-beam 15 pass continuously therethrough, as before; but the securing-flanges 16 are formed on the inner walls of the girder-passage, so that a smooth outer joint is presented. The clamping members are provided on the upper and lower faces with the integral collars or rims 17 to form a socket for the ends of the columns 18, and securing-bolts 19 prevent displacement of the columns. The form illustrated in Fig. 4 serves the same purpose as the one just described; but the construction is slightly different. The lower member 20 is formed with a channel 21 to receive the beam and is exteriorly shouldered at 22. The upper member is in the form of a channel-iron

which fits down over the shouldered walls of the lower member, and fastening-bolts 19 pass through the meeting walls of the two members. The members are each formed with studs 24, over which fit the ends of the columns.

In Fig. 6 is shown means for tying the superposed columns together. Upon the end of the lower column is mounted a cap-piece 25, exteriorly shouldered at 26. The upper column rests upon the cap-piece, and a sleeve 27 surrounds the lower end of the upper column and is shouldered at 28 to engage the shouldered portion of the cap. Securing-bolts 29 are passed through the parts to hold the members together.

Where it is desired to use the invention simply as a column-support, as in Fig. 7, the upper clamping member is mounted upon the foundation 30, with the sill 31 passing therethrough. A stud 32 is provided on the upper face of the member, which is engaged by the column 33. Lugs or projections may be formed on the under face of the member to secure the member against movement on the sill.

From this description, taken in connection with the drawings, it will be evident that I have accomplished all the objects hereinbefore set forth and have provided a practical and durable joint for building purposes.

I claim—

1. The combination of a pair of clamping members adapted to have a beam pass there-through, and means for adjustably clamping the members together said members pro-

vided with means for securing the adjoining ends of columns thereto.

2. The combination with clamping members formed each with a channeled portion to provide a boxing, of means on the upper and lower faces of said members for engagement with a post or column and clamping means for securing the members in juxtaposition.

3. A column-joint adapted to be secured to the ends of superposed columns, fastening means for securing the columns thereto, said joint formed with an angular channel to allow the passage of a beam therethrough.

4. In building construction, a joint comprising clamping members, there being angular securing-flanges at the meeting edges of the members, said members being hollowed to provide a central passage therethrough for the reception of a beam, and means on opposite faces of the members to be engaged by superposed columns.

5. In building construction, a joint comprising clamping members having angular securing-flanges at their meeting edges, said members being hollowed to form a boxing for the passage of a beam therethrough, and means on the sides of the members to receive an abutting beam.

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

THOMAS F. McCARTHY.

Witnesses:

ALFRED L. MOODY,
GEORGE E. REGAN.