July 6, 1948. J. W. KEFFER 2,444,705

ADJUSTABLE SHORING SUPPORT

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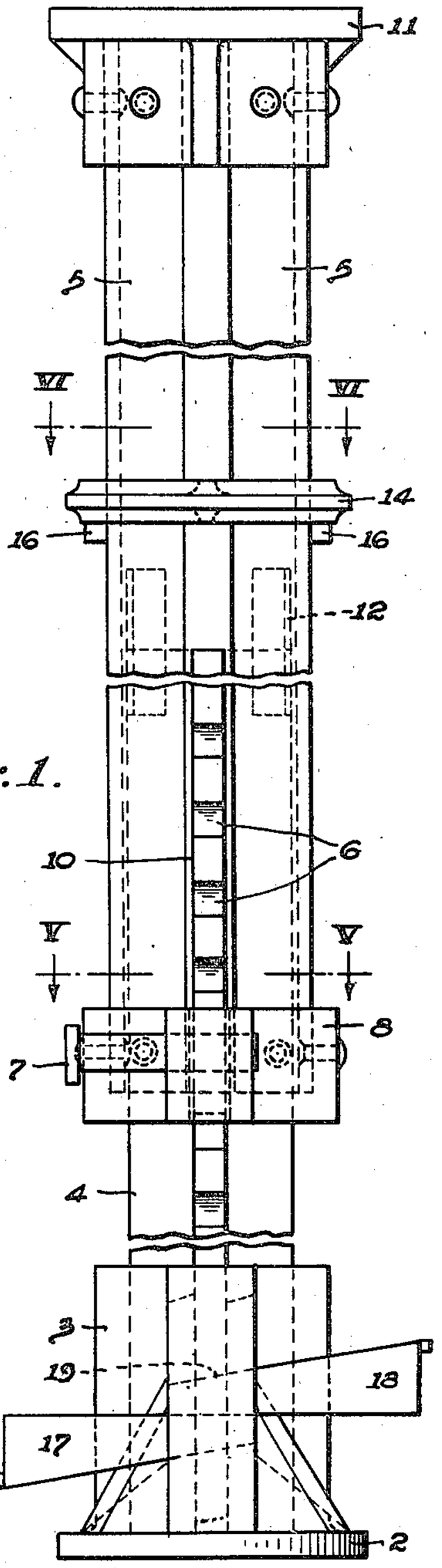

Fig. 1.

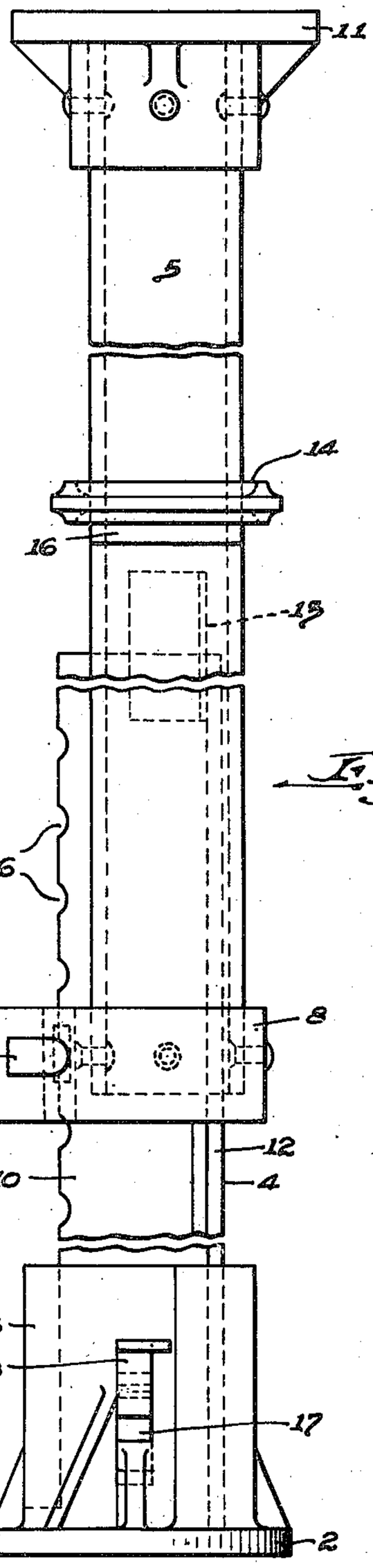

Fig. 2.

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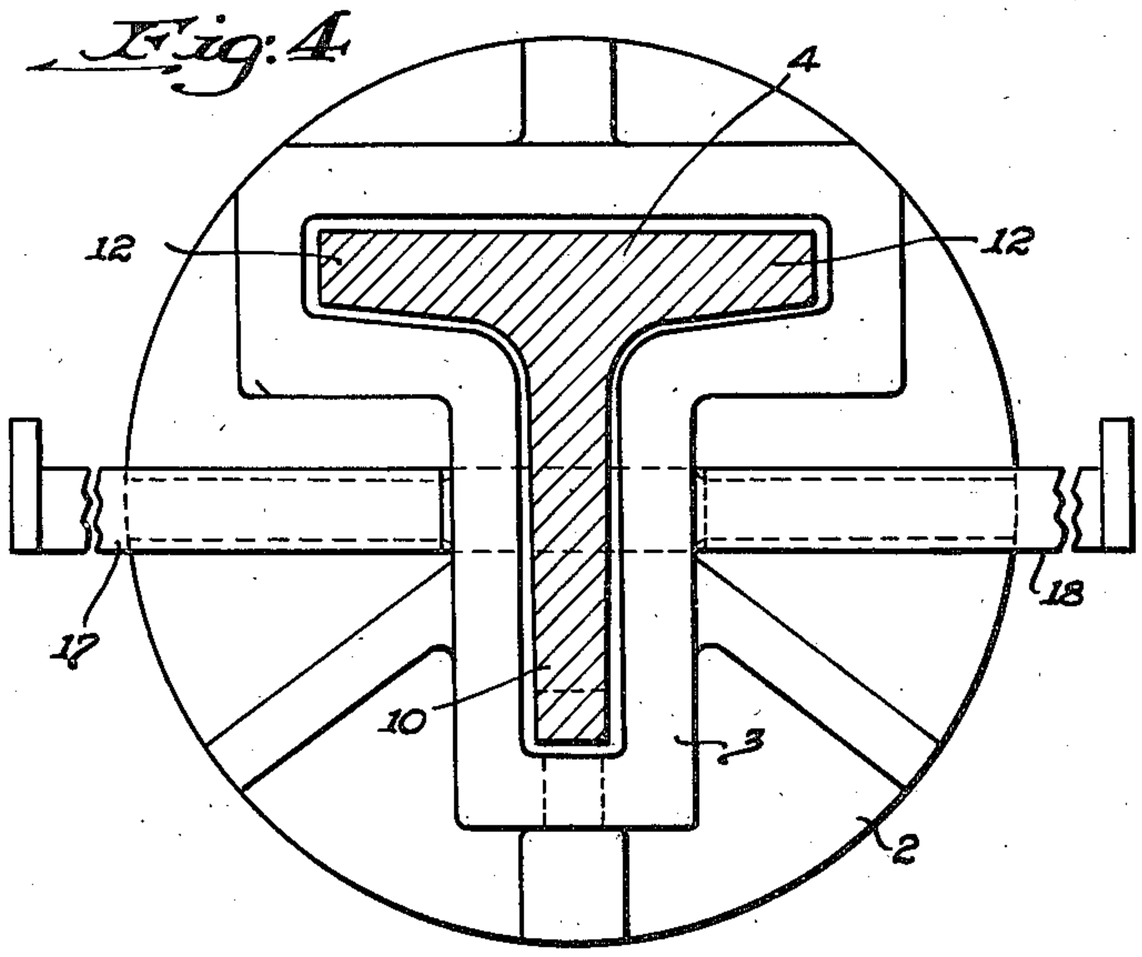
Fig: 4



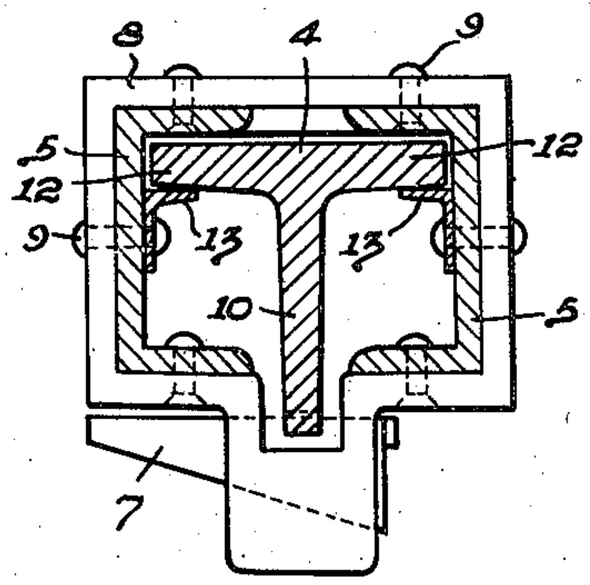


Fig: 5.

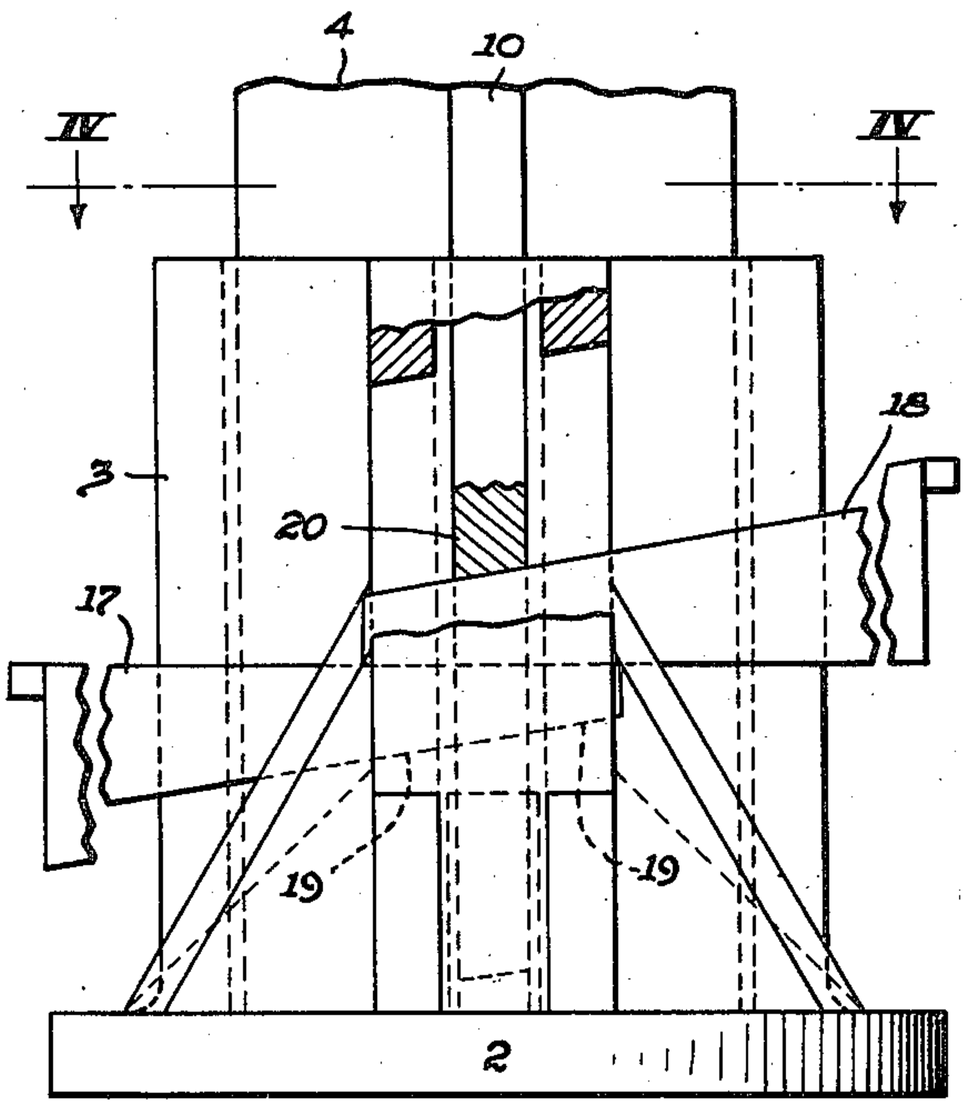


Fig: 3.

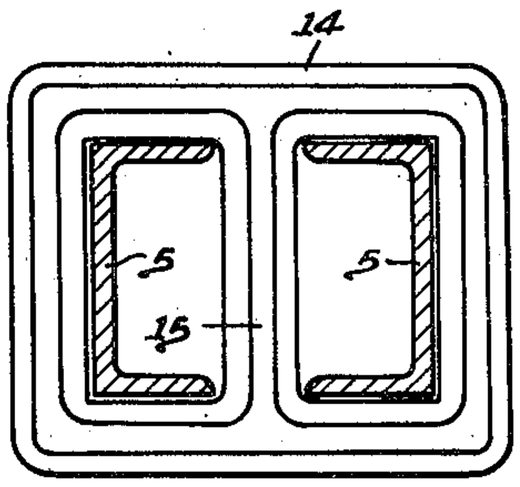


Fig: 6.

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UNITED STATES PATENT OFFICE

2,444,705

ADJUSTABLE SHORING SUPPORT

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Application March 22, 1946, Serial No. 656,400

5 Claims. (Cl. 248—354)

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My invention is an improvement in adjustable shoring supports, having in view the provision of such a device for insertion between a floor surface and an upper surface as that of a beam or ceiling or the like, for instance a temporary form for concrete flooring. It has in view to provide means for easy and quick adjustment by lengthening or shortening, for approximately correct placement between the opposing surfaces, together with means for accurately and tightly adjusting the movable member for final location.

One preferred embodiment of the invention is shown in the accompanying drawings in which:

Fig. 1 is a view of the device in front elevation, partly broken away.

Fig. 2 is a similar view in side elevation.

Fig. 3 is an enlarged view of the base and a portion of the inserted central stem or mast.

Fig. 4 is a transverse section on the line IV—IV of Fig. 3.

Fig. 5 is an enlarged cross section on the line V—V of Fig. 1.

Fig. 6 is a similar section on the line VI—VI of Fig. 1.

Referring to the drawings, a cylindrical base footing 2 is provided with an upwardly extending T-shape socket form base housing 3, integral with the footing 2, and of an outline in T form for receptive insertion of the main slidably located main mast member 4, of structural shape as a T.

Slidably mounted on member 4 is the upper extensible section, consisting of a pair of channel members 5—5, slidably enclosing the central mast 4. Members 5—5 are adapted to be raised with relation to mast 4, and locked or held in adjusted approximately proper distance, so as to render but slight supplemental adjustment necessary, to be capable of final contact with the upper surface.

For the purpose of thus adjusting the outer channel members 5, the edge of the web member of the T is provided with a series of half round sockets 6 adapted to be engaged by adjusting wedge 7 of the surrounding block 8.

Such block as shown in Fig. 5 is fixedly connected with the channel members 5 as by rivets 9. The grooves 6 are in the edge portion of the middle web member 10 of the main standard 4.

Wedge 7 is for temporarily locating the upper slidable members 5 and the terminal cap portion 11 approximately as close as possible. Such adjustment is by manual lifting and driving of the wedge 7 to fixedly locate the upper supplemental adjustable members 5—5 to approxi-

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mately the correct position, subject to final tightening.

In such preliminary adjustment, the channel members 5—5 slidably engage the flanges 12 of main mast 4, additional angle members 13 assisting in providing such sliding relationship, held in position by the rivets 9 at suitable locations, in addition to connection with the frame 8.

For the purpose of fixedly holding the channel members 5 in relationship to each other, I utilize a retaining ring 14 surrounding the channels 5, and provided with a middle transverse bar 15 as clearly shown in Fig. 6.

The ring as thus made is supported by opposite strips 16 of the channel members, whereby to maintain the spacing of the parts with relation to each other, for easy sliding movement.

The preliminary adjustment as described having been made, the final tightening by further upward movement of the main mast 4 is effected by a pair of wedges 17—18. The wedges extend inwardly in opposite directions between bearings 19 of the T-shaped housing 3, and the bearing face 20 of the main web 10 of the T-iron mast 4, as clearly shown in Figs. 3 and 4.

Such adjustment of one or both wedges used together forces the T member, and its supplemental surrounding channel members 5 and cap 11, upwardly into tight supporting contact with the member being adjusted.

After thus being so adjusted, and in use, the support, or several of them, are readily collapsed by reverse movement of wedges 17—18 as well as of wedge 7, whereby the upper portion may be lowered until block 8 is resting upon the main foundation member 3, for removal.

The construction and operation of the invention will be readily understood from the foregoing description, and it may be constructed of commercial shapes readily adaptable to the combinations described, while as a whole the adjusted shoring implement is readily and accurately set in position, as desired.

It is composed of few parts, simply and easily constructed, and capable of manufacture and use in variable sizes and of suitable weight and strength, for adaptation to various conditions of use.

What I claim is:

1. An adjustable shoring device consisting of a base adapted to slidably engage a structural column provided with a central web having on its edges a series of wedge-engaging grooves, a supplemental upper portion composed of structural members, and a holding block therefor surround-

ing and secured to the said structural members having a wedge engageable with one of said edgewise grooves.

2. An adjustable shoring assembly comprising a base member having a socket opening and a transverse wedge opening extending therethrough, a raising and lowering wedge in said opening, a column in the base in shouldered engagement with said wedge, a series of holding sockets arranged edgewise of the column, an upper secondary column surrounding the base member column having a sliding block secured thereto, and a wedge mounted in the block for engaging one of said sockets.

3. An adjustable shoring assembly comprising a base member having a socket opening and a pair of oppositely acting transverse wedges extending therethrough, a main structural column in the base having a web member provided with a transverse shouldered opening in engagement with said wedges and having along one edge a series of holding sockets, an upper secondary column consisting of a pair of channel members surrounding and slidably engaging the base member column provided with a surrounding sliding block, a lower block secured to the channel members slidably embracing the main column, and a transverse wedge in the lower block for engaging one of said holding sockets in the web member of the main column.

4. In combination, a base member having a transverse wedge, a T-shape main column having a wedging opening through its web and a series of sockets along its edge, a pair of channel bars and a surrounding block secured thereto in sliding relation to the column, a wedge in said block engageable with one of said sockets, an upper retaining ring embracing each of the channel bars, and a terminal bearing cap secured to the channel bars.

5. In combination with a base having a supporting socket and plural wedges extending therethrough, a T-shape double flange main column slidably mounted in the base having a wedge engaging opening and a series of holding notches in its edge, a composite upper column formed of a pair of channel members slidably engaging the T-shaped column, a terminal cap, an upper sliding block embracing each channel member, and a lower block connected with the lower ends of the channel members, and provided with a wedge engageable with one of said notches.

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