

March 20, 1928.

1,663,153

A. W. BENSLEY

POLE SUPPORTING DEVICE

Filed Sept. 22, 1927

2 Sheets-Sheet 1

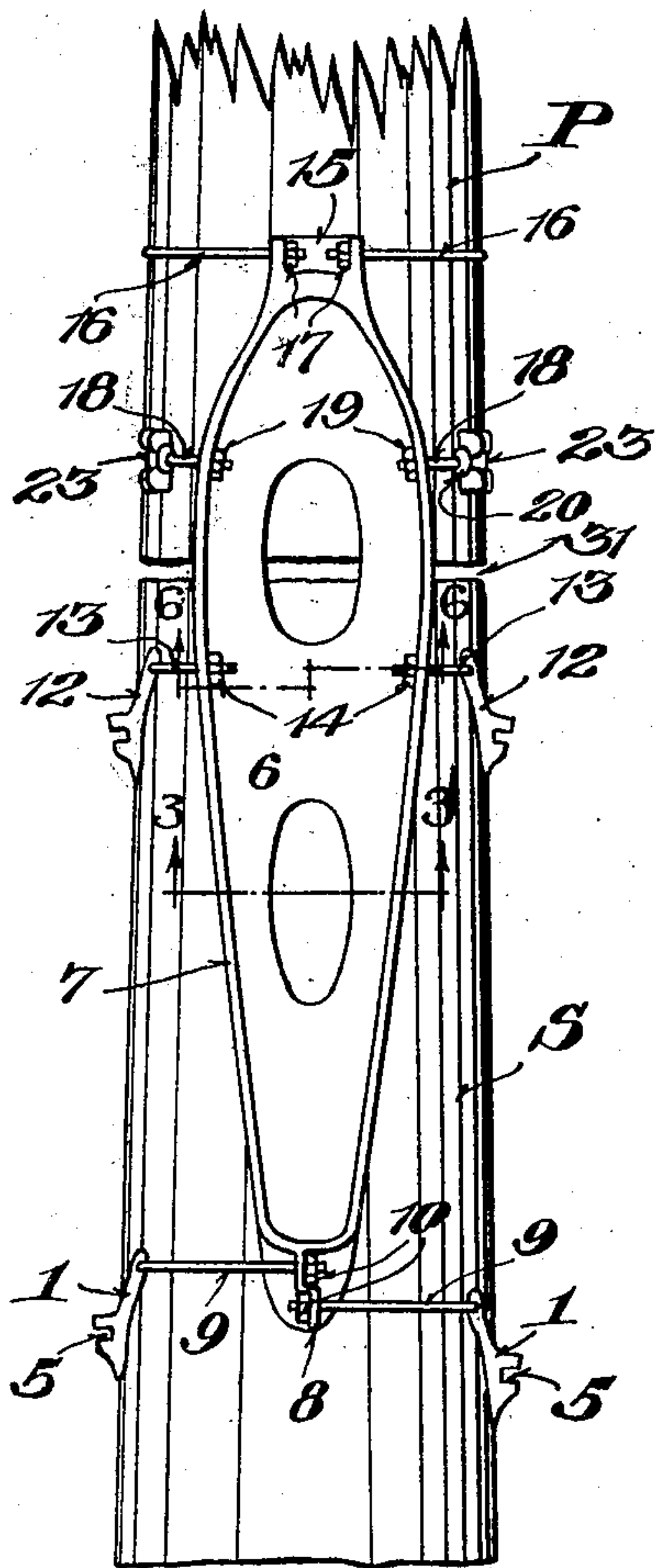


Fig. 1

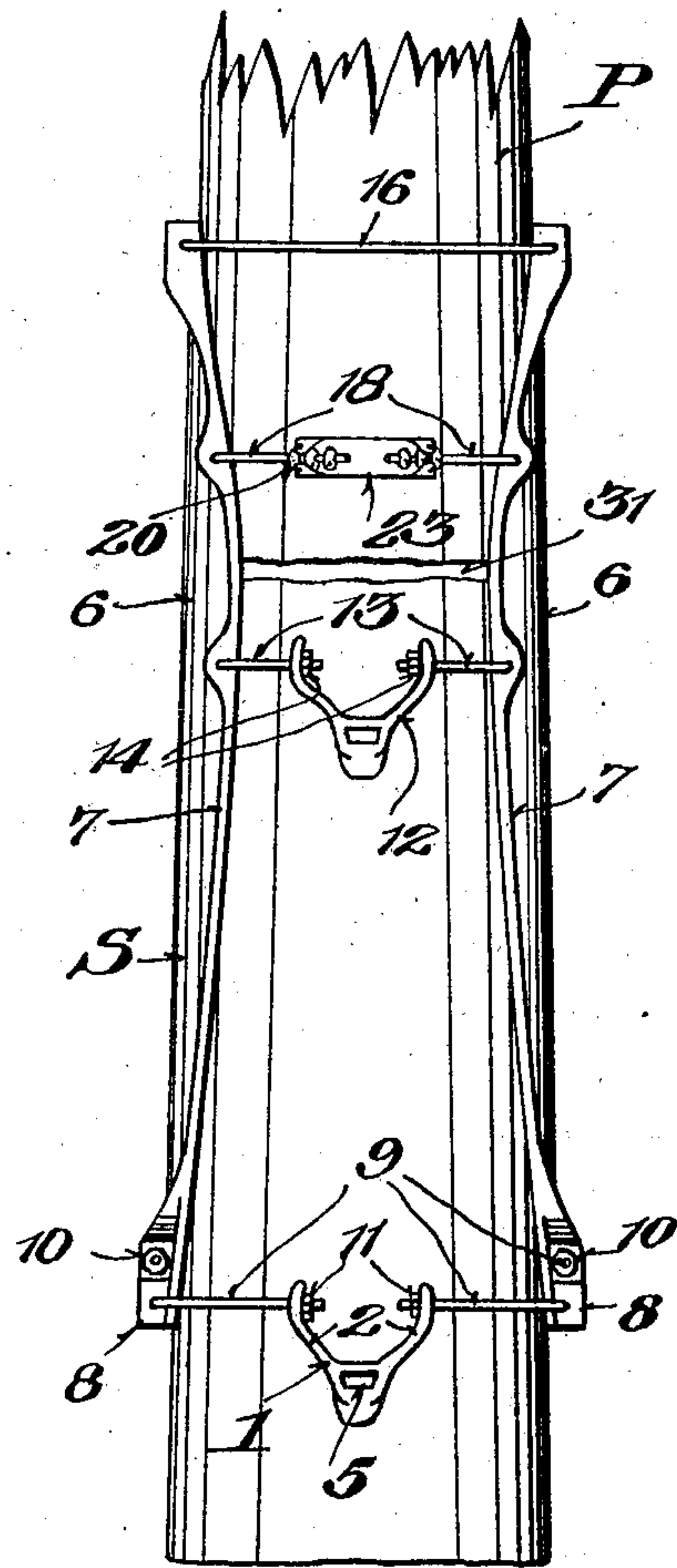


Fig. 2

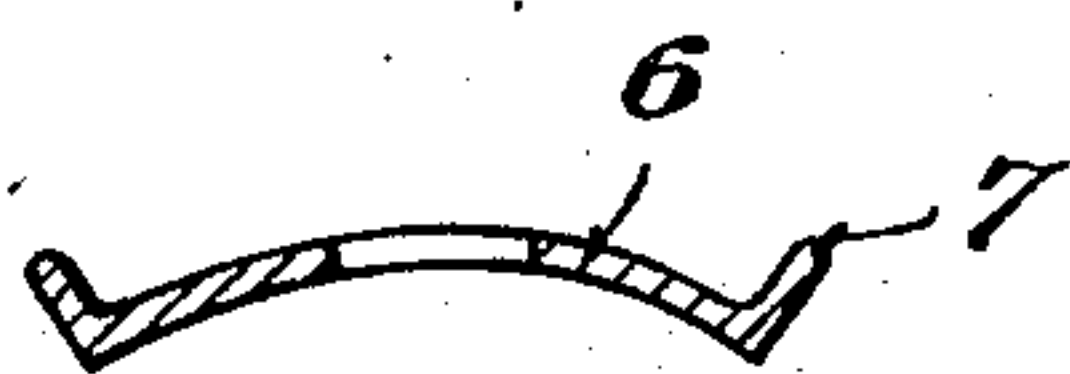


Fig. 3

Albert W. Bensley
INVENTOR
Joseph A. Miller
ATTORNEY

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2 Sheets-Sheet 2

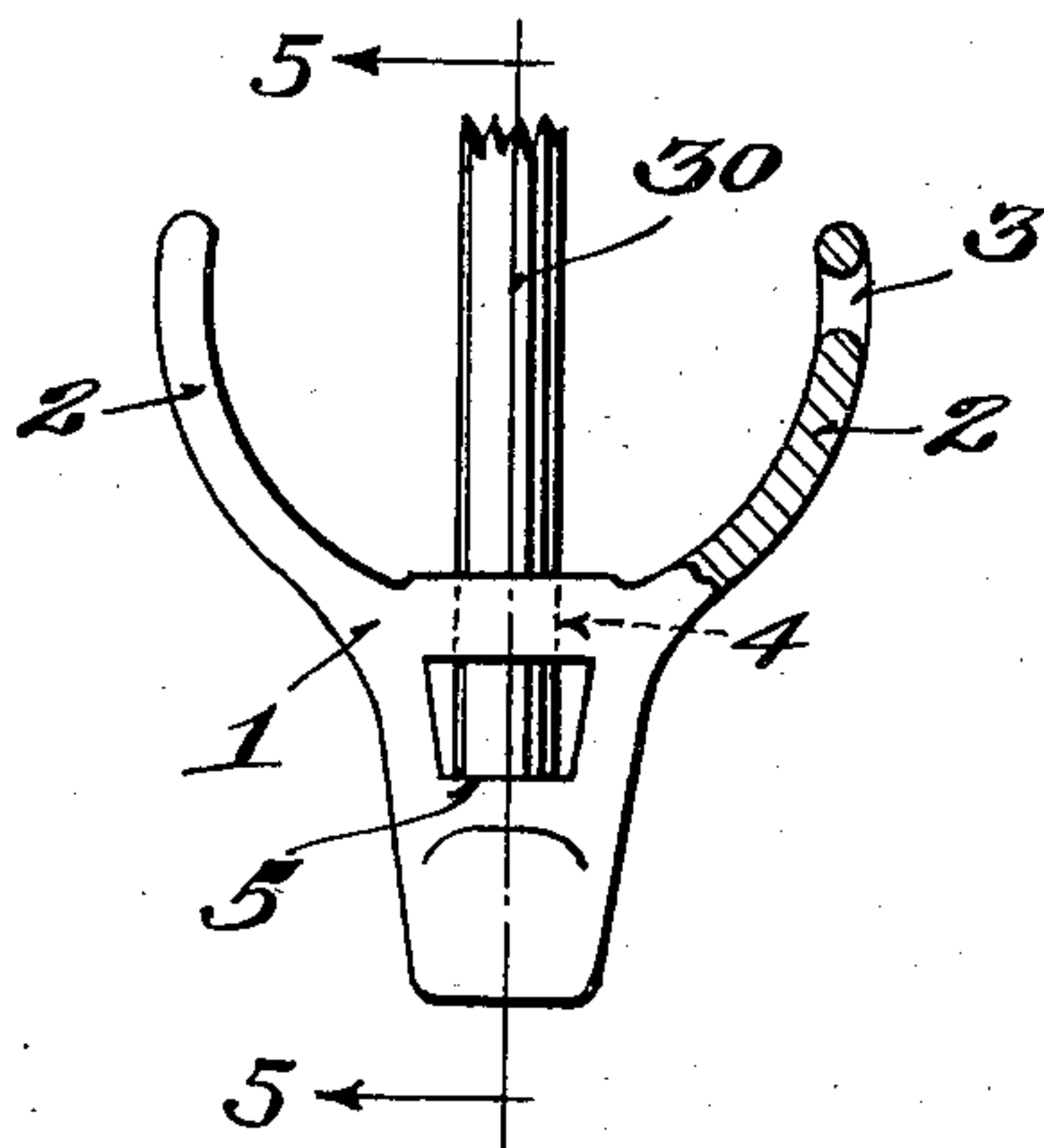


Fig. 4

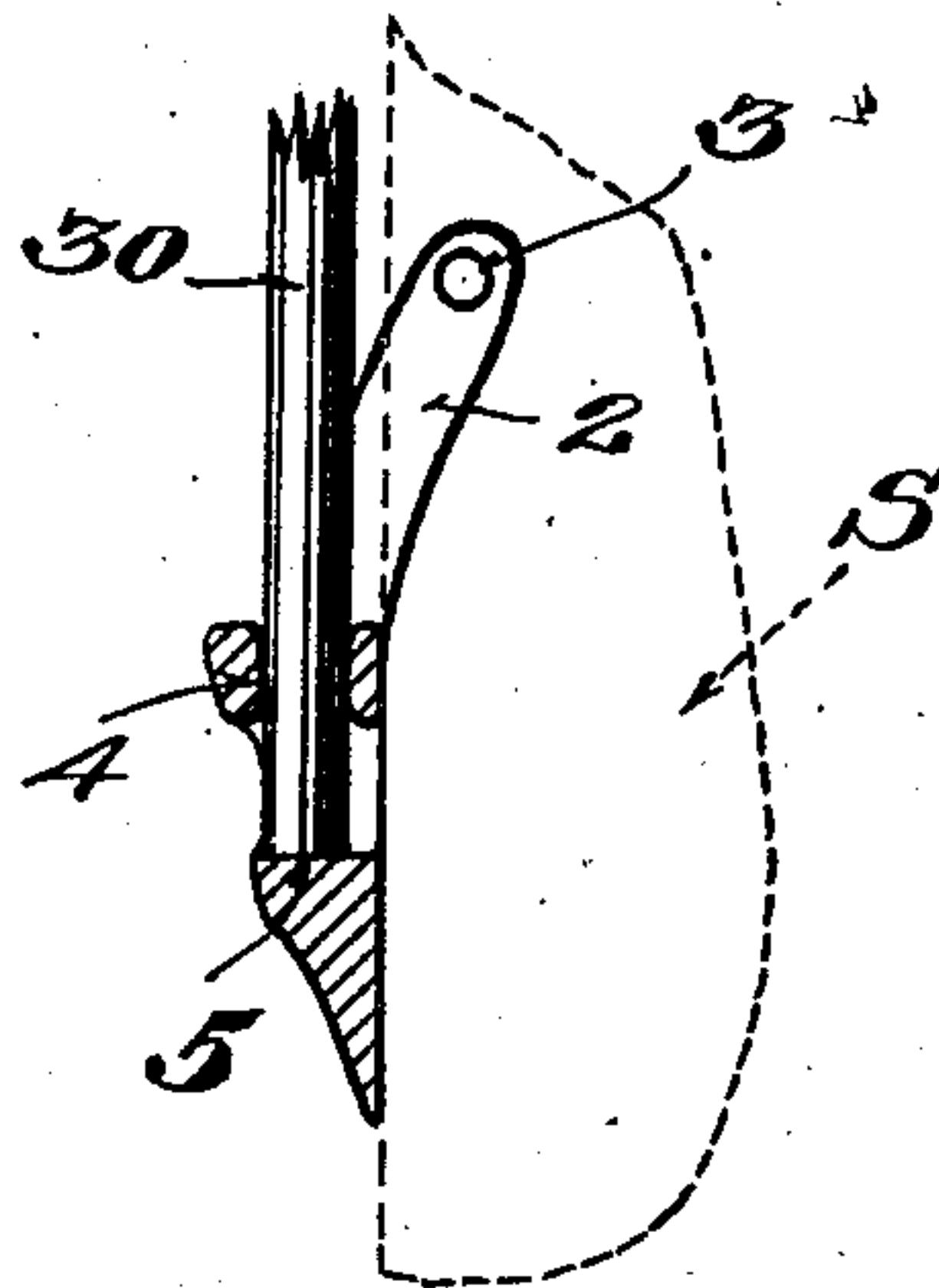


Fig. 5

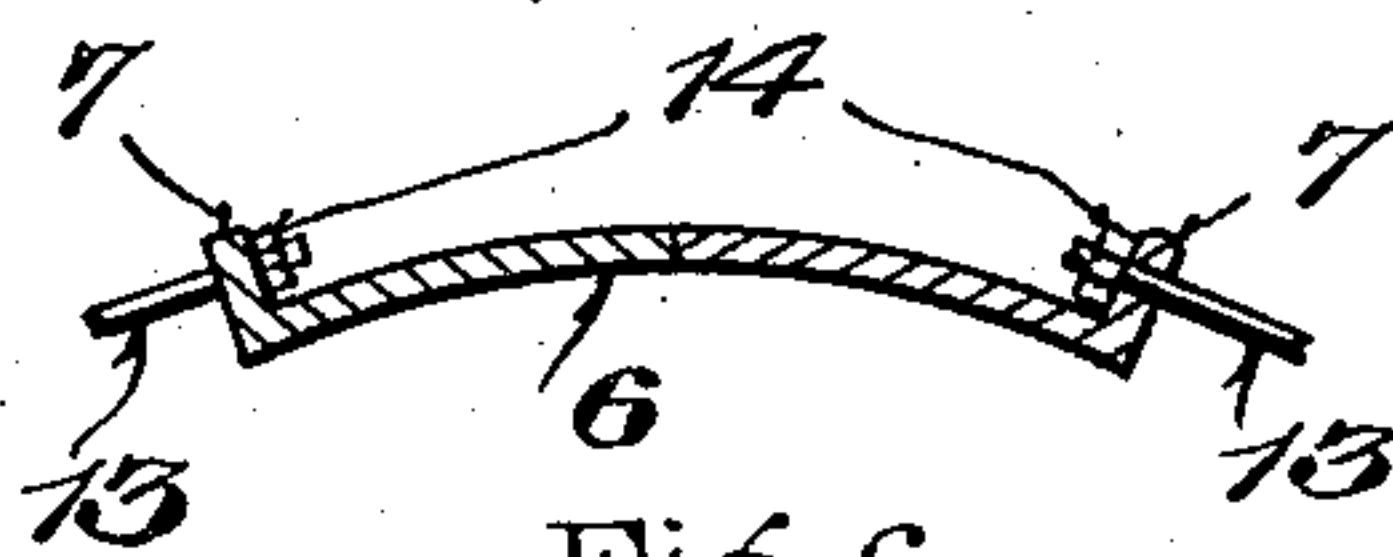


Fig. 6

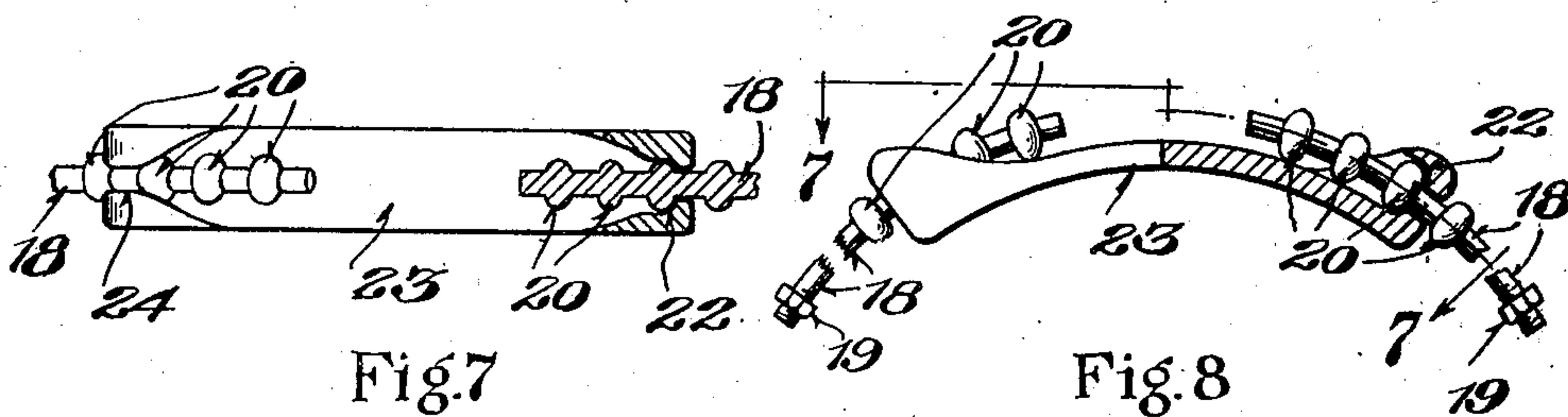


Fig. 7

Fig. 8

Albert W. Bensley

INVENTOR

Joseph A. Miller

ATTORNEY

Patented Mar. 20, 1928.

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UNITED STATES PATENT OFFICE.

ALBERT W. BENSLEY, OF PAWTUCKET, RHODE ISLAND.

POLE-SUPPORTING DEVICE.

Application filed September 22, 1927. Serial No. 221,307.

This invention relates to certain new and useful improvements in pole supporting devices, and relates more particularly to supports used in connection with telephone, electric light or other poles.

As is well-known, these poles are long, heavy and costly and one of the main objections is that they rot at the surface of the ground.

The primary object of the present invention is to provide a structure which enables the rotted portion to be removed, by cutting, and the upper part of the pole then secured to the lower part, which latter remains in the ground, without disturbing or digging a hole around the lower end of the pole that remains in the ground, thereby to not only enable the operation to be more expeditiously and economically performed, but to also in no way affect the security of the anchorage of the bottom end of the pole that remains in the ground.

In the drawings:—

Figure 1 is a fragmentary side elevation of the present invention applied to a pole that has had the rotted part thereof removed.

Figure 2 is a like view taken at right angles to Figure 1,

Figure 3 is a section on line 3—3 of Figure 1.

Figure 4 is a side elevation partly broken away and in section of one of the anchors applied to the stub or bottom end of the pole.

Figure 5 is a section on line 5—5 of Figure 4,

Figure 6 is a section on line 6—6 of Figure 1,

Figure 7 is a section on line 7—7 of Figure 8 and

Figure 8 is a top plan view partly broken away and in section of one of the clamps employed in connection with the upper end of the pole.

As is customary in the art, the pole is cut off at the surface of the ground, by sawing, which leaves a stub or base S embedded in the ground. The decayed part is then cut by sawing from the upper part of the pole, the latter being jacked in vertical position. In proceeding in accordance with the present invention, ground engaging members or anchors 1 are employed which are preferably of substantially U-shape and which have the arms thereof bent to conform and en-

gage with the sides of the stub S of the pole as shown in Figures 1, 2 and 5. The bar or rod 30 is adapted to be removably engaged in the socket 4 for a purpose later set forth.

A pair of bridge members 6 are employed which have inner sides conforming to the sides of the stub S and the top P of the pole, the members having reinforcing or strengthening side flanges 7. The bridge members 6 are also formed with flanges 8 at their end lower portions, which flanges are of somewhat undulating form and are perforated to receive the bolts 9 having nuts 10 which latter fit in the undulations and are held against turning thereby. The other ends of the tie bolts 9 extend through the openings 3 and the arms 2 of the anchors 1 and are equipped with nuts 11. As shown in Fig. 1 of the drawings there are two anchors employed, one being disposed above the other.

Anchors 12 similar to the anchors 1 are employed and are disposed at the upper portion of the stub S, which anchors are connected by tie bolts 13 to the flanges 7 of the bridge members, the tie bolts 13 extending through openings provided therefor in the flanges 7 and being equipped with nuts 14 as shown in Figures 1 and 6.

The upper ends of the bridge member 6 are formed with depressed parts 15, the opposite walls of which are perforated to receive tie rods 16 which latter are secured in position by nuts 17. The upper ends of the bridge members are further secured to the pole P by means of tie rods 18, the outer ends of which extend through openings provided therefor in the flanges 7 and are equipped with nuts 19. The inner ends of the tie rods 18 are formed with spaced disc-like abutments 20 which are adapted to be engaged in end seats 22 of curved connector members 23. The curved connector members have openings 24 at their upper sides so as to permit the tie rods 18 to be admitted thereto, and easily and quickly adjusted in accordance with the diameter of the hole.

In operation, after the pole has been sawed and the decayed portion removed as above described, the present invention is loosely placed and locked around the upper end of the stub and the lower end of the pole, but is not locked to the pole. Bars 30 are inserted in the sockets 4 of the ground anchors 1 and 12 and are seated on the anvil face 5, whereupon the outer ends of the bars have ham-

mer blows delivered thereto so as to drive the anchors in the ground to the desired depth, and at the same time the bridge members are also driven into the ground, which latter must be sufficient to cause the bridge member 6 to be firmly supported from the stub. Preferably the anchors are formed of malleable or wrought iron which permits the arms 2 to be bent to a considerable degree without rupture or breaking so that the arms can conform themselves to any irregularities of the periphery of the pole. During this operation the pole P is held jacked and after the anchors have been driven to the desired depth the pole P is lowered so as to leave a free air space 31 between the top face of the stub and the lower face of the pole P. The securing devices embodying the tie rods 16 and 18 at the upper ends of the bridge members are then adjusted so as to cause the bridge members to securely engage the pole. If desired the same type of tie rod 16 can be employed in lieu of the tie rods 18 if desired.

From the foregoing it will be seen that due to the usual upward tapering of the stub S the various parts will be frictionally engaged with the stub upon downward driving of the parts by means of the rods 30, and it will further be noted that these rods 30 permit the device to be applied to the stub from above the surface of the ground, and without digging of a hole or otherwise disturbing the security of the anchorage of the stub.

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

1. In a device of the type set forth, a pair of bridge members formed to engage opposite sides of a stub and a pole, an upper and a lower pair of U-shaped ground engaging members formed to engage the stub and to be driven into the ground, means to connect the bridge members to the pole, and means to connect the ground engaging members to the bridge members, said ground engaging members having anvil faces and sockets thereabove located between the arms thereof so as to removably receive driving rods in the sockets and on the anvil faces to enable the members to be driven into the ground from above the surface thereof.

2. In a device of the type set forth, a pair of bridge members formed to engage opposite sides of a stub and a pole, an upper and a lower pair of U-shaped ground engaging members formed to engage the stub and to be driven into the ground, means to connect

the bridge members to the pole, and means to connect the ground engaging members to the bridge members.

3. In a device of the type set forth, a pair of bridge members formed to engage opposite sides of a stub and a pole, ground engaging members formed to engage the stub and to be driven into the ground, means to connect the bridge members to the pole, and means to connect the ground engaging members to the bridge members.

4. In a device of the type set forth, a pair of bridge members formed to engage opposite sides of a stub and a pole, ground engaging members formed to engage the stub and to be driven into the ground, means to connect the bridge members to the pole, and means to connect the ground engaging members to the bridge members, the ground engaging members having guides to receive driving rods so as to enable the members to be driven into the ground from above the surface of the latter.

5. In a device of the type set forth connecting means formed to engage a stub and a pole, means to secure the connecting means to the pole, ground engaging means formed to be driven into the ground from above the surface thereof, and means to secure the ground engaging means to the connecting means.

6. In a device of the type set forth, connecting means formed to engage a stub and a pole, means to secure the connecting means to the pole, ground engaging means formed to be driven into the ground from above the surface thereof, and means to secure the ground engaging means to the connecting means, said ground engaging means having anvil faces and sockets to engage and receive driving bars.

7. In a device of the type set forth, connecting means formed to engage a stub and a pole, means to secure the connecting means to the pole, ground engaging means formed to be driven into the ground from above the surface thereof, and means to secure the ground engaging means to the connecting means, said ground engaging means having divergent upwardly extending arms formed to embrace the stub and further having driving-bars-receiving sockets between the arms and anvil faces, on which the bars seat located at the lower ends of the sockets.

In testimony whereof I have signed my name to this specification.

ALBERT W. BENSLEY.