

March 7, 1944.

S. C. MILLER

2,343,691

SIZE COMPENSATING ELEVATION POST

Filed Oct. 17, 1941

Fig. 1.

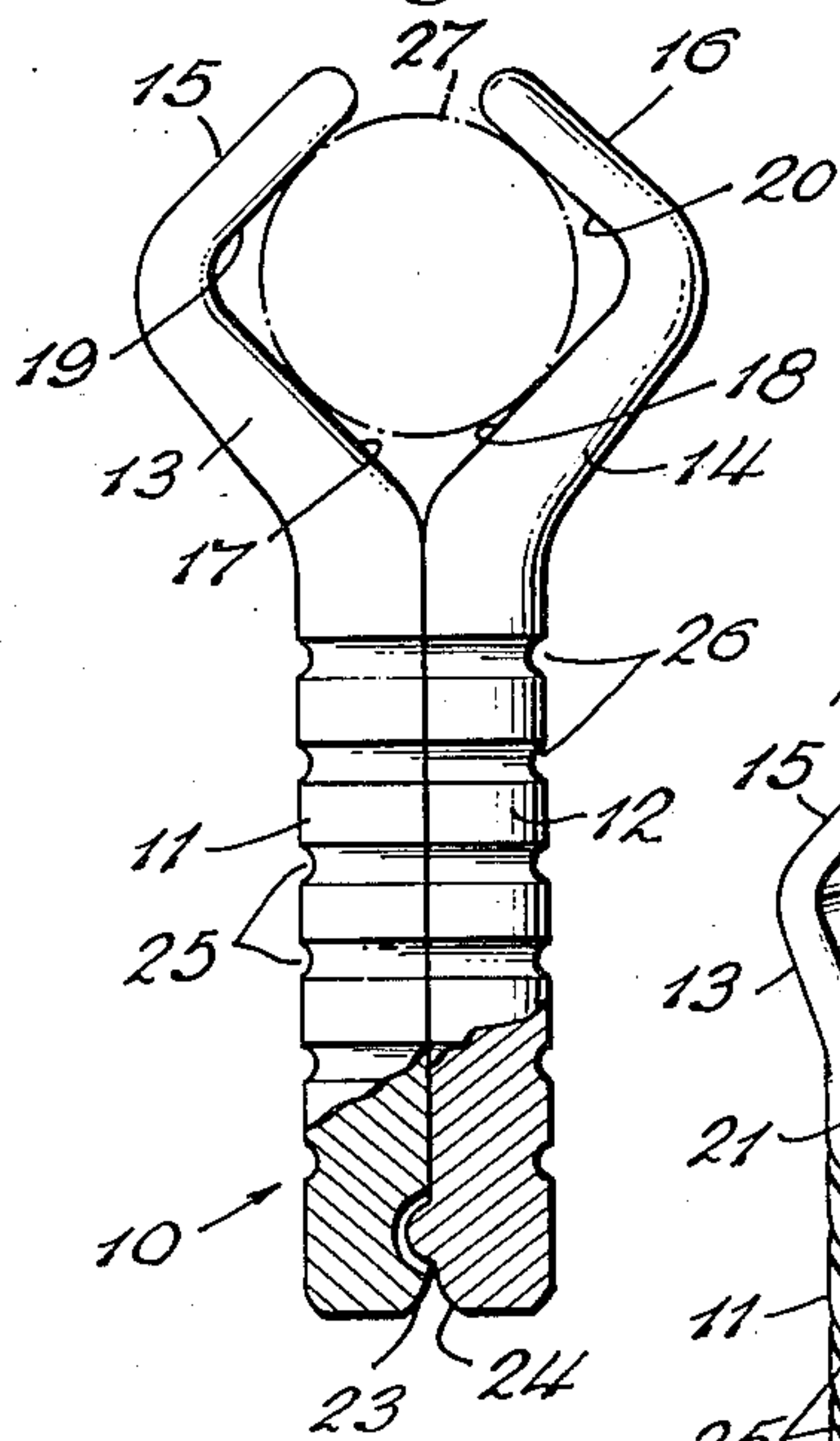


Fig. 2.

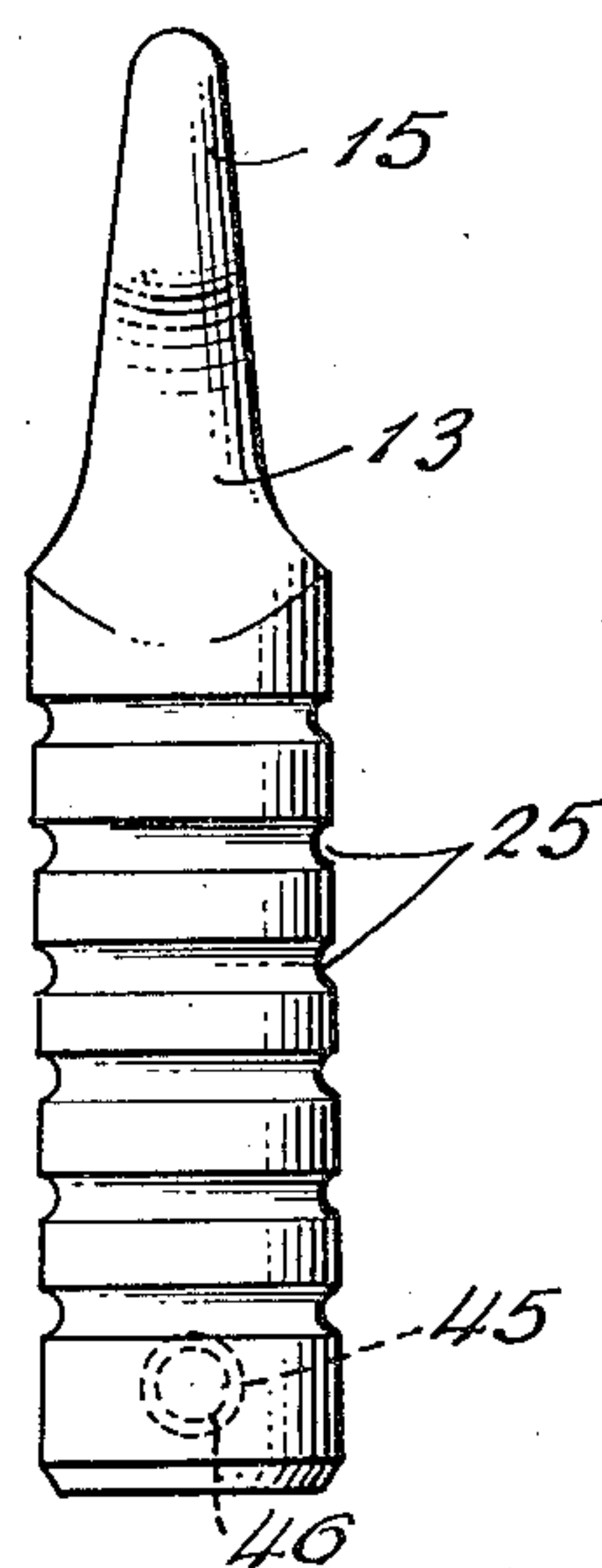


Fig. 3.

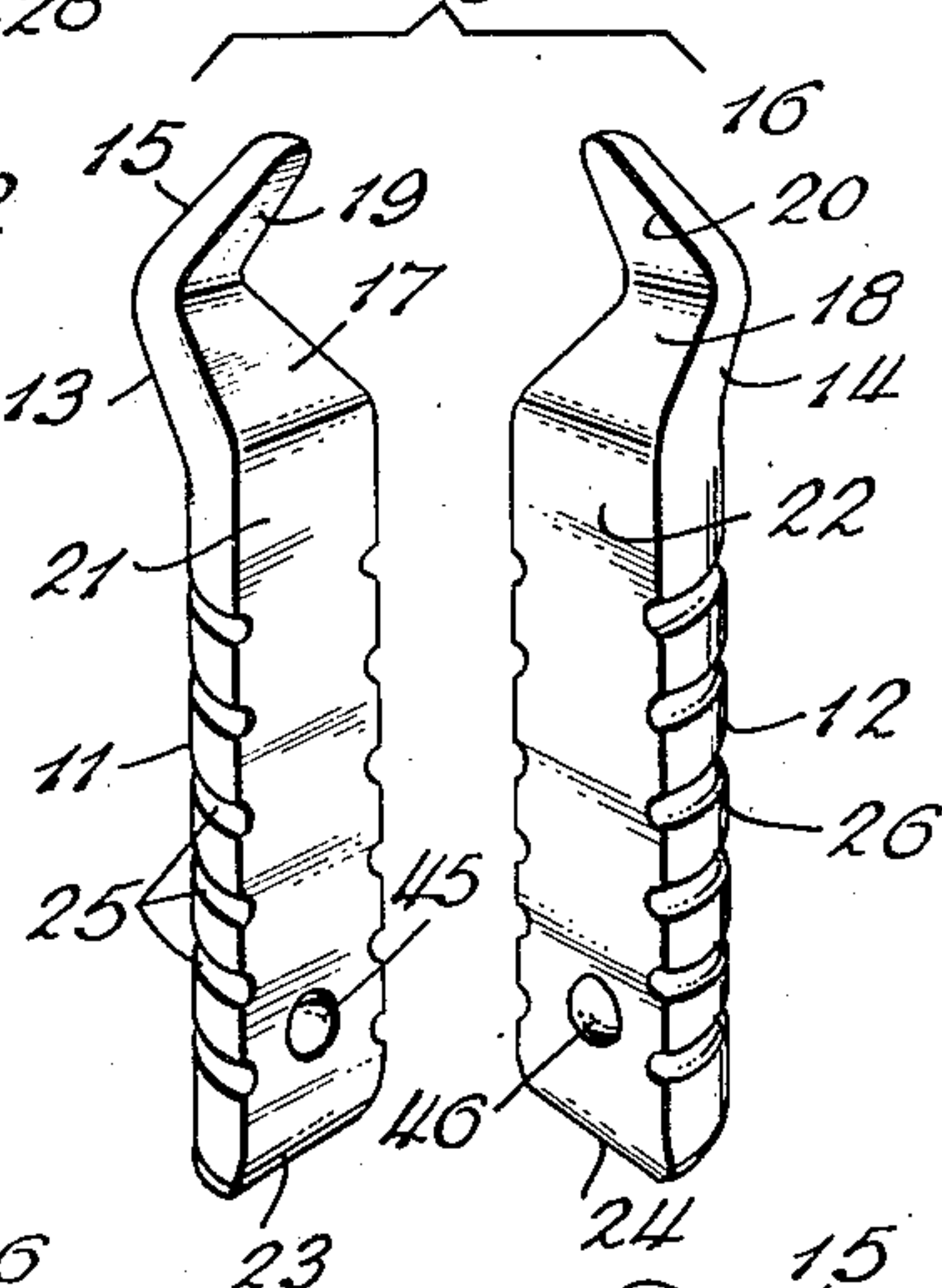


Fig. 4.

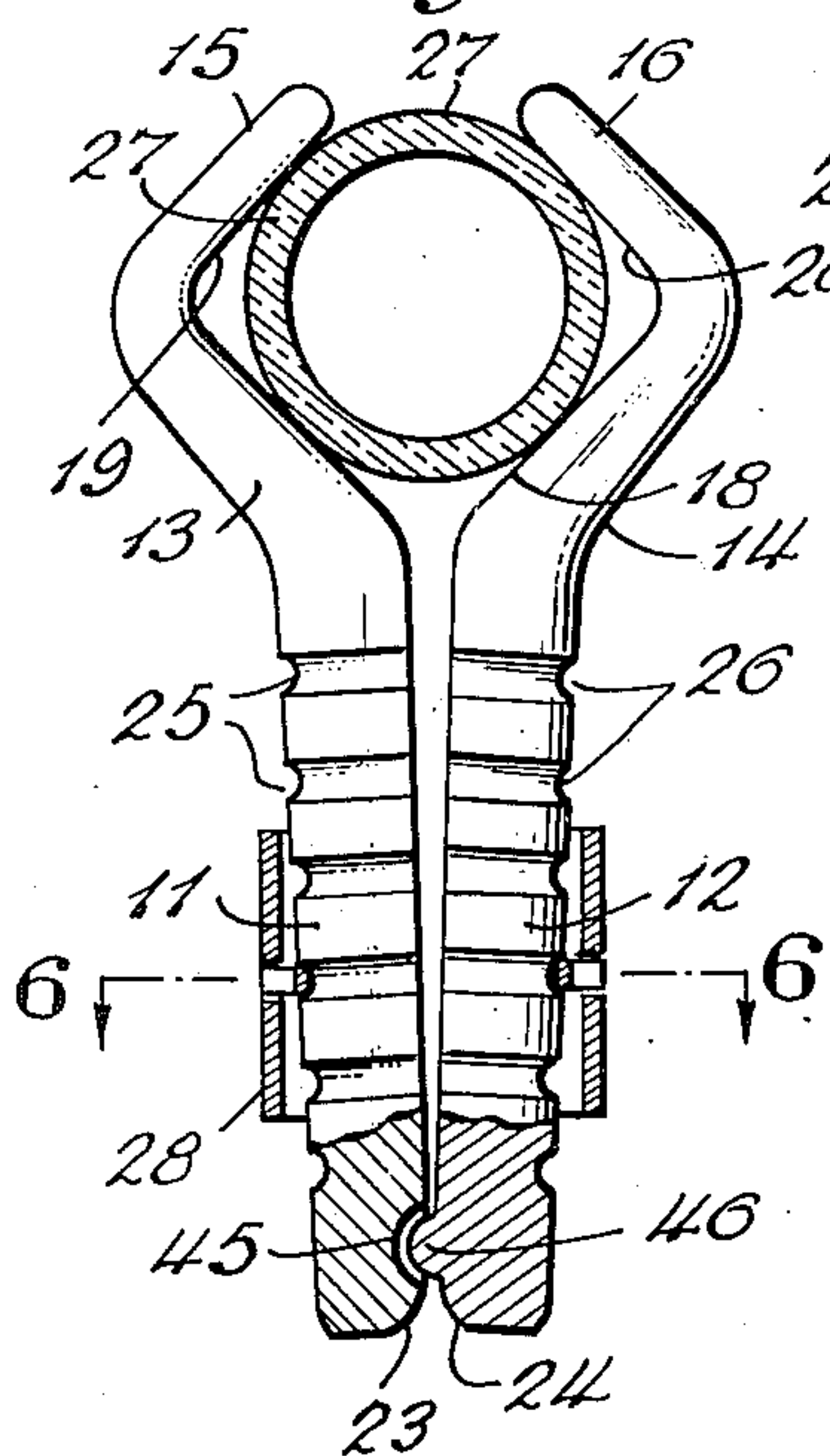


Fig. 6.

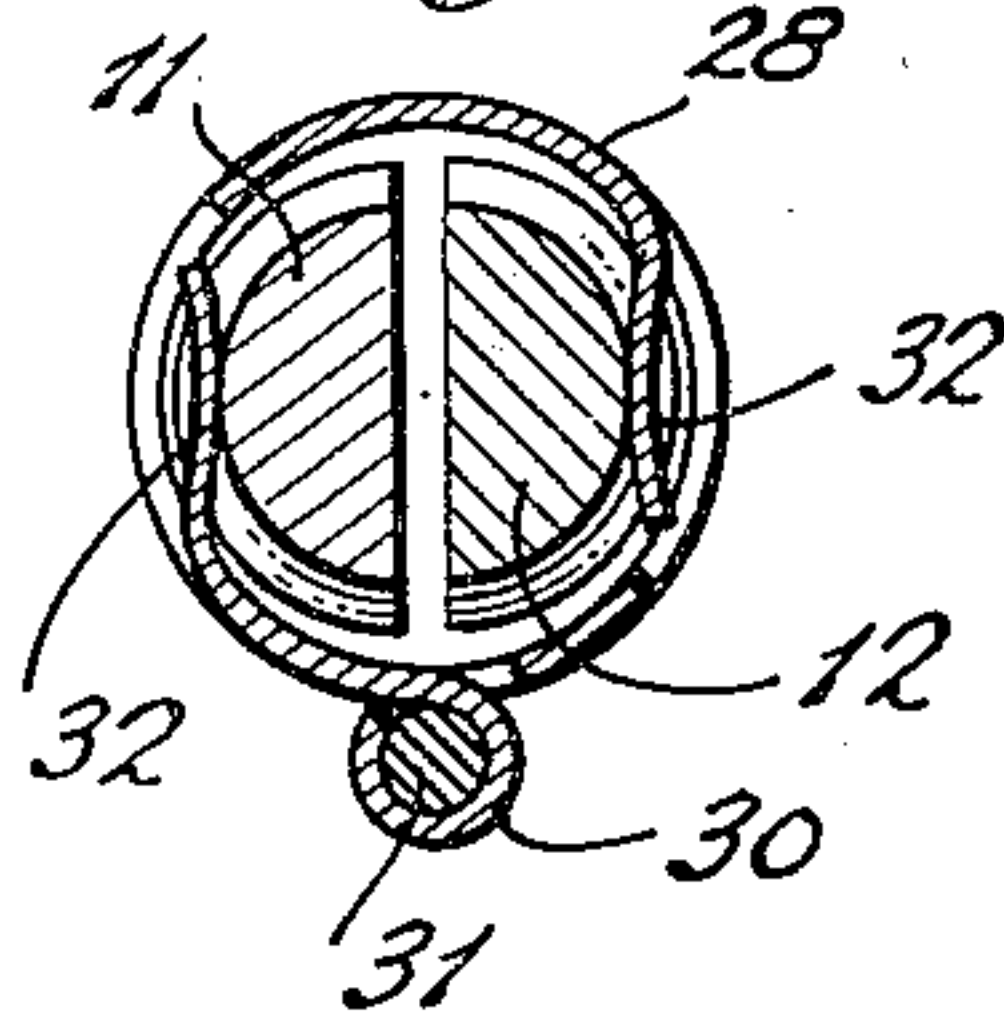
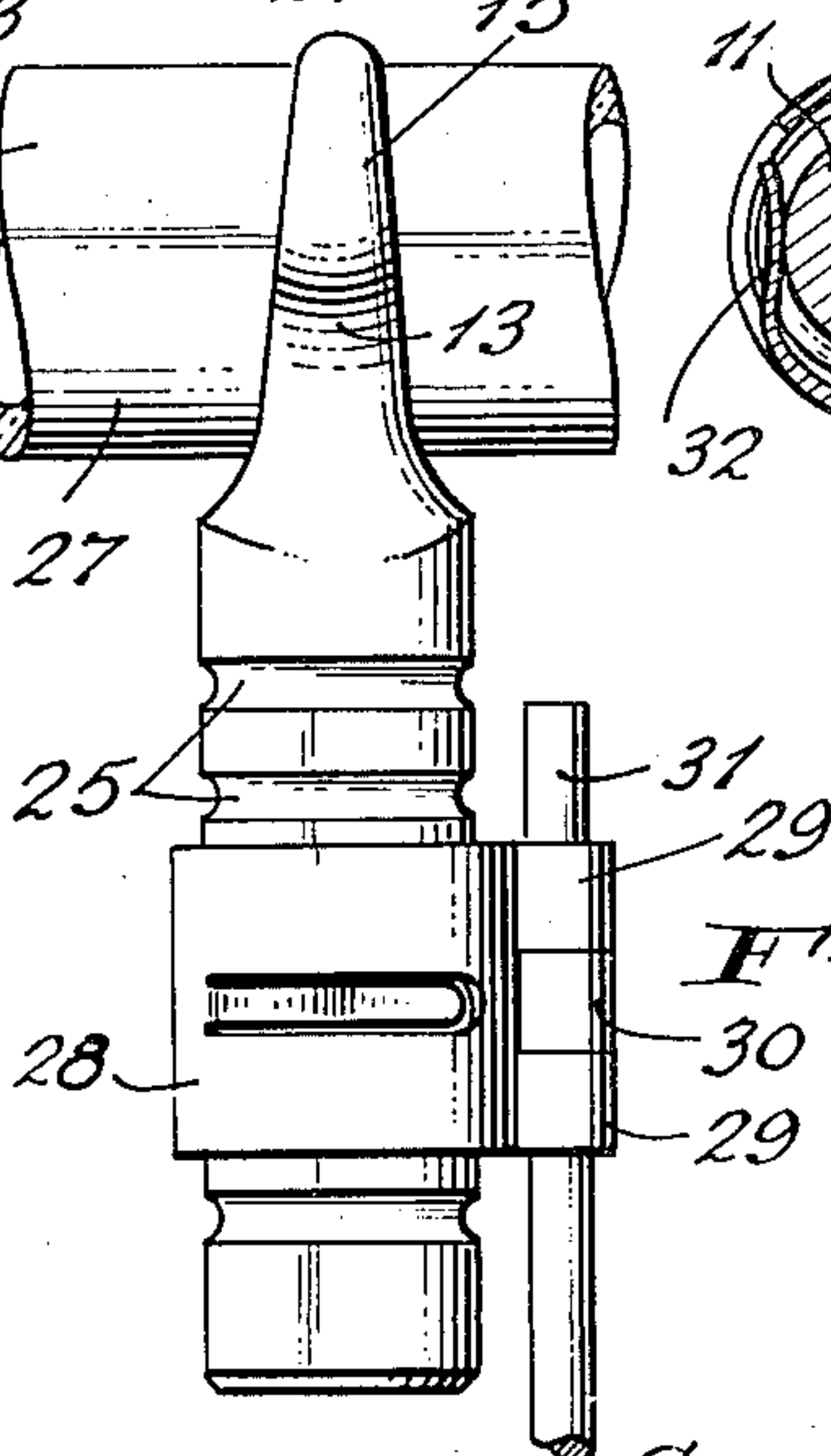


Fig. 5.



INVENTOR
SAMUEL C. MILLER
BY *J. H. Bassiches*
ATTORNEY

UNITED STATES PATENT OFFICE

2,343,691

SIZE COMPENSATING ELEVATION POST

Samuel C. Miller, New York, N. Y.

Application October 17, 1941, Serial No. 415,350

7 Claims. (Cl. 248—50)

This invention relates to elevation posts, more particularly to elevation posts for use in connection with supporting tubular gaseous tubes or illuminants in position and still more particularly to insulator elevation posts.

My invention has for its object the provision of insulator elevation posts for holding tubular gaseous discharge tubes, or so-called neon sign tubing in position without the necessity of resorting to twisted wire ties heretofore known to me to have been employed with glass elevation posts.

Still more particularly, my invention resides in the provision of an insulator elevation post which may be made of molded insulating material such as glass and synthetic plastics which will minimize the labor in affixing insulators of this character in position, as well as to present an attractive appearance while permitting wide tolerance in size to compensate for different sizes of tubings employed.

Reference will be made to the accompanying drawing for exemplification of the objects heretofore mentioned. Other objects will become more apparent as this description proceeds. For this purpose I make reference to the accompanying drawing forming a part hereof in which:

Figure 1 is a front elevational view of my device, a portion of which is shown in section to illustrate the internal construction;

Figure 2 is a side elevation thereof;

Figure 3 is an exploded perspective view of the sections of my device;

Figure 4 is a view similar to Figure 1 with a larger tube in position showing a sectional view of the post clip in position;

Figure 5 is a side view thereof;

Figure 6 is a section taken on the line 6—6 of Figure 4.

Making reference to the drawing, my invention contemplates the provision of an elevation post 10 shown in Figure 1 which is made of insulator materials such as glass, porcelain or synthetic thermoplastic resinous materials which may be molded, cast or otherwise shaped.

My device constitutes sections 11 and 12, the two forming complementary shanks of general semi-circular cross section adjacent the upper end. Each shank extends into fingers 13 and 14 angularly outwardly directed and terminate in inwardly directed sections 15 and 16, defining bearing portions 17, 18, 19 and 20 arranged to form a seat for a tube T.

The sections 11 and 12, when in contact with each other, along the surfaces 21 and 22 with

their bottom ends coterminus, will serve to embrace within the fingers 13 and 14 a predetermined size of glass tubing cooperating with well known elevation post clips to thereby serve to hold the sections 11 and 12 together in tube embracing position without further manipulation.

Thus, it will be readily understood that in order to affix the elevation post into tube holding position the worker need merely position the sections 11 and 12 to opposite sides of the tube T and thereafter slip a clip (not shown) into position. This operation thereby eliminates the labor involved in twisting wires heretofore employed to bind the tube to the elevation post.

Since it is found that the tubes vary in size, I have devised elevation post clips which cooperate with the elevation post sections heretofore described to provide a wide tolerance in adjustment compensating for various sizes of tubing which may be encountered in practice.

For this purpose, reference is made to Figure 4 where I have illustrated a sleeve 28 generally cylindrical in cross section, which has extension ears 29 and 30 on the respective branches of the clip through which the standard 31 passes to bind the sections 11 and 12 to each other, and thereby hold the fingers 13 and 14 in position embracing the tube 27.

I secure a resilient action urging the sections 11 and 12 into position by the provision of resilient fingers 32—32 which engage the grooves 25 and 26 to hold the clips in adjustable positions along the length of the sections 11 and 12.

To further compensate for the difference in sizes, of tubings 27 which may be encountered, I find it desirable to bevel the faces 21 and 22 adjacent the edges 23 and 24 thereby to secure the proper spread of the sections 11 and 12 from each other while retaining as much surface contact as possible and the maximum circular character of the sections as will be readily understood. To assure longitudinal alignment of the grooves 25 and 26 where these are used, or where screw threading is used to secure longitudinal adjustment of the elevation post I may also key sections 11 and 12 to each other and for this purpose, I thereby provide the section 11 with a depressed section 45 into which the extruded lug 46 may extend into keying engagement holding the sections 11 and 12 diametrically aligned and longitudinally aligned.

It will be understood that the extensiveness of the spring fingers 32—32 in the clips 28 may be varied to take care of the divergence in spring of

the sections 11 and 12 as different sizes of tubing 27 is encountered.

It will be observed that I have thus provided an elevation post for holding neon sign tubings or the like gaseous tubular illuminants in position, employing a preformed tube engaging elevation post eliminating thereby heretofore employed wire ties, as well as the labor incident to effecting the tie by the cumbersome twisting action to which these ties are subjected in order to effect the binding action.

It will be observed, also, that I have provided a novel combination elevation post and adjustable mounting means therefor in connection with which the adjustable means of my application Serial No. 337,193, filed May 25, 1940, and Serial No. 369,798, filed December 12, 1940, are particularly found desirable.

It will be understood that while the most preferred results are secured by the employment of all of the features as shown in the exemplified construction, that I am not to be limited thereby and that novelty is attributed to segregated portions thereof as set forth within the scope of the appended claims.

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

1. In an insulator elevation post for luminous tubes, a sectionalized segment comprising shank forming portion, having at one end thereof a seat or saddle forming portion and a shaped tube engaging finger to center and to compensate for the size of the tube whereby upon assembly of said complementary segments by holding means engaging the shank portion along its length the tube may be held in accordance with the diameter of the tube by a pair of said fingers complementarily positioned in contacting engagement, holding said tube in mounted position upon said seat or saddle and held against displacement by said fingers within a range of sizes having normal variations as a result of the tube forming operations.

2. In an insulator elevation post for luminous tubes, a sectionalized segment comprising a shank forming portion, having at one end thereof a seat forming portion and an angularly directed tube engaging finger to center and to compensate for the size of the tube, a bearing face on one side of said shank forming portion and adjusting means formed on the side of said shank and means on said face for aligning said segments, whereby complementary segments engaging the shank portion along its length may have their bearing surfaces brought into substantial contact with the tube in accordance with the diameter of the tube to embrace the tube and center it in respect of said seat by engagement of said finger and hold glass tubings within a range of sizes having normal variations as a result of the tube forming operations.

3. An insulator elevation post and mounting means for luminous tubes, comprising a seat forming portion disposed at one end of a shank forming portion and preformed tube centering and embracing fingers, to one side of said seat forming portion said portions being sectionalized into segments complementarily opposed portions

of which may be spaced to and from each other in contact with the tube in accordance with the variation in diameter of the tube, to hold said tube centered upon the seat and a resilient socket member engaging complementarily disposed shank portions for removably clipping said segments together to bring said fingers into tube engaging position said socket member having standard engaging means for disposing said assembly in position and resiliently holding said tube within a range of sizes having normal variations as a result of the tube forming operations.

4. An insulator elevation post and mounting means for luminous tubes, complemental segments each provided with a ridged shank, having a seat and tube engaging portion adjacent one end of said shank, said seat and tube engaging portions being angularly inclined to center and accommodate a wide tolerance in tube sizes, and a socket member adjustable along the length of said shank for said shank holding said segments in engagement the inner range of sizes having normal variations as a result of the tube forming operations, said member including resilient tongues engaging said shanks of said segments to resiliently urge said segments into engagement.

5. An insulator elevation post and mounting means for luminous tubes, complemental segments each provided with a shank, having a seat and tube engaging portion adjacent one end of said shank, said seat and tube engaging portions being angularly inclined to center and accommodate a wide tolerance in tube sizes, and a socket member adjustable along the length of said shank for said shank holding said segments in engagement, said shank portion including adjusting elements on the outer face and engaging means on the inner face whereby said segments may be held in aligned relationship in respect of said elements.

6. An insulator elevation post and mounting means for luminous tubes, comprising in combination complementary insulator segments cooperating to form a shank, seat and tube engaging fingers, said segments being longitudinally sectionalized for engagement with and centering of a tube in respect of said seat, and a socket member having inwardly directed resilient tongues for holding said segments in tube engaging position, said shank being formed with transverse grooves into which said tongues of said member fit to hold said segments into alignment longitudinally during adjustment.

7. An insulator elevation post and a mounting means for luminous tubes, comprising in combination complementary insulator segments cooperating to form a shank, seat and tube engaging fingers at one end of said shank, said segments being longitudinally sectionalized for engagement with and centering of a tube in respect of said seat, and a socket member having resilient means for holding said segments in tube engaging contacting position, said shank being formed with means cooperating with said resilient means to hold said socket member along the length of the shank in frictional engagement.

SAMUEL C. MILLER.