Aug. 15, 1950 F. R. FELBER 2,518,875

MAST MOUNTING FOR TELEVISION ANTENNAS

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Fig. 1

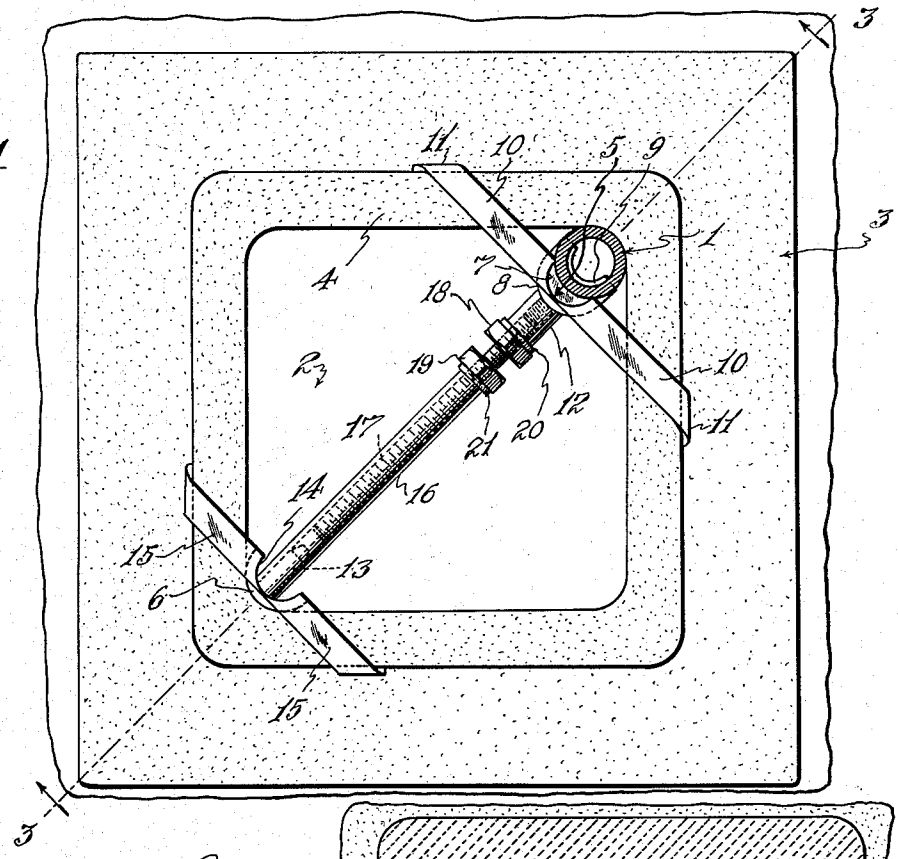


Fig. 2

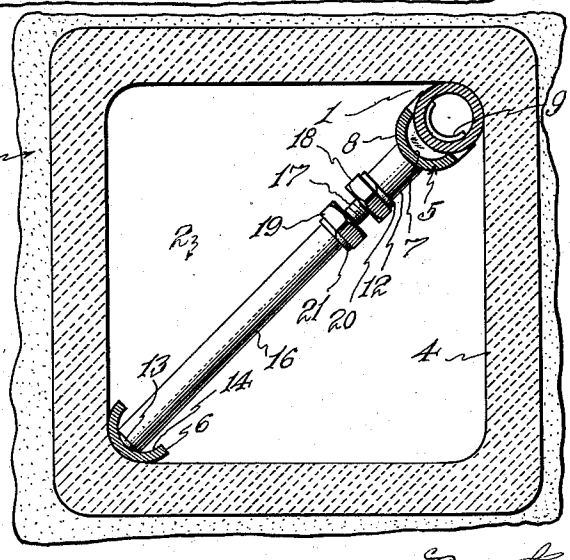
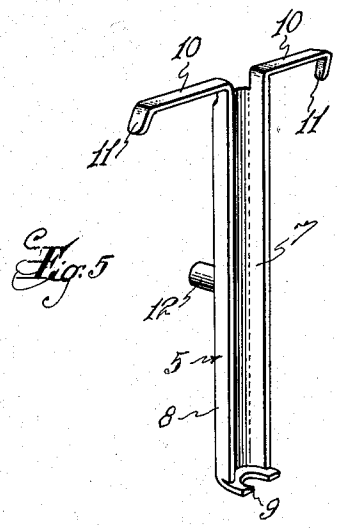


Fig. 3



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Fig. 3

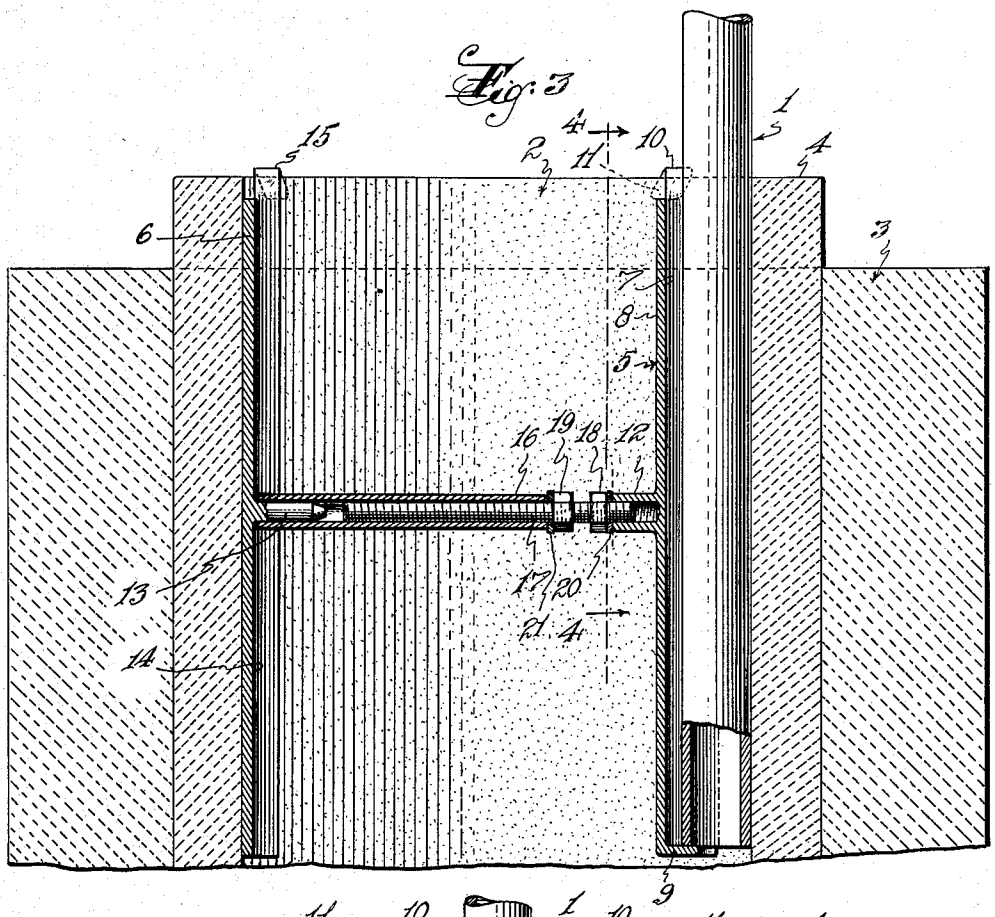
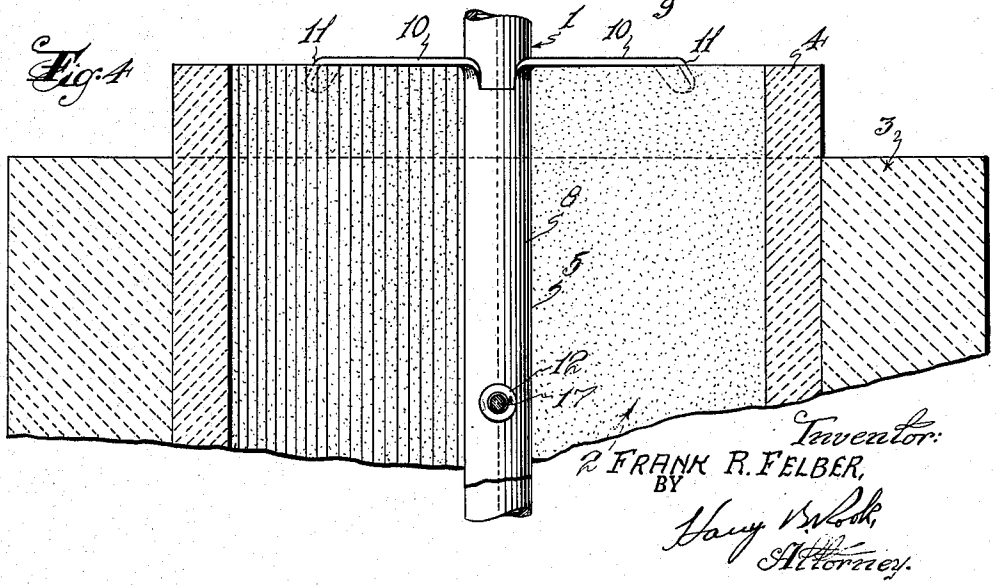


Fig. 4



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MAST MOUNTING FOR TELEVISION ANTENNAS

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3 Claims. (Cl. 248—38)

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In mounting antennas or aerials for television, radio and the like, it has been customary to secure the mounting pole or mast to the outside of the chimney by fastening means, for example by metal bands having clamps for the mast, which frequently weaken or otherwise damage the chimney, are difficult to install, and are unsightly.

It is a prime object of the present invention to provide apparatus for mounting a television mast whereby the mast can be erected on and easily and quickly removed from a chimney without damage to the chimney.

Another object of the invention is to provide such a mounting apparatus that can easily be installed inside of a chimney and out of sight.

Another object is to provide a mounting that will securely and firmly hold the mast in upright position.

Another object is to provide novel and improved means for easily and securely mounting a mast inside a chimney of ordinary construction for example inside the tile flue or lining without the use of nails, bolts or other separate fastening elements.

Another object is to provide apparatus for mounting a mast that is easily installed by an unskilled worker, is composed of separable parts that can readily be disassembled and knocked down for convenience in storage, transportation and erection.

Another object is to provide apparatus for mounting a mast that is simple in construction, economical to manufacture and sturdy.

Other objects and advantages of the invention will be apparent from the description thereof to follow taken in connection with the accompanying drawings in which—

Figure 1 is a top plan view of a chimney with a mast supported therein by apparatus embodying my invention, the mast being shown in section.

Figure 2 is a sectional view taken across the flue of the chimney.

Figure 3 is an enlarged vertical sectional view taken on the plane of the line 3—3 of Figure 1.

Figure 4 is a sectional view taken on the plane of the line 4—4 of Figure 3.

Figure 5 is a perspective view of one of the mast clamping and supporting plates.

Referring to the drawings, in Figure 1, a tubular mast 1 for supporting television antenna is shown extending downwardly into a square-shaped flue 2 of an ordinary brick chimney 3, the mast being supported inside the flue and securely clamped to the wall 4 of the flue by the improved apparatus.

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The improved apparatus includes a pair of elongated plates 5 and 6 which are adapted to be inserted downwardly into the flue 2. Plate 5 is curved longitudinally to form a body substantially semispherical in cross-section having a concave face 7 and a convex face 8. The diameter of the arc of the body of the plate is slightly smaller than the diameter of the arc of the mast so that the side edges of the plate will grip the outer surface of the mast. One end of plate 5, the leading end as it is the end which is inserted first into the flue, is closed with an integral shelf or seat 9. The opposite end, or trailing end of the plate, is formed with opposed laterally projecting extensions or straps 10 provided with hooked ends 11. These straps are adapted to be hooked over the top edges of the wall 4 of the flue for securely suspending the plate inside of the flue. An internally screw-threaded tubular boss 12 extends laterally from the convex face 8 of plate 5 intermediate its ends.

The other plate 6 of the pair of plates is of the same length and is constructed similarly to plate 5 but instead of having a boss 12, it is provided with a solid stud 13 projecting laterally from its concave face 14 at the same point along its body. Plate 6 has no shelf or seat on its leading end and the straps 15 on its opposite end are shorter than the straps 10 of plate 5.

A turnbuckle assembly is used with the plates 5 and 6 for clamping the mast 1 to the wall of the chimney flue. As shown in detail in Figure 3, it comprises an elongated tubular housing or sleeve 16 and an externally screw-threaded stem or rod 17, of the same length as and slidable in the sleeve. Spaced nuts 18 and 19 are mounted on the rod to move longitudinally thereof.

In assembling the pair of plates 5 and 6 for supporting the mast 1 inside the flue 2 of the chimney, a portion of the rod 17 is slid inside the sleeve 16 leaving one end of the sleeve unobstructed and with a portion of the rod extending outside of the opposite end of the sleeve. The unobstructed end of the sleeve is slipped over the stud 13 on plate 6 with its other end juxtaposed to the nut 19; and the end of the protruding portion of the rod is threaded into the boss 12 of plate 5, after which nut 18 may be tightened to fasten the rod in said boss. When the plates are so connected, manual rotation of the nut 19 in one direction will cause the nut to push the sleeve and spread the plates apart and rotation in the opposite direction will permit the

plates to move toward each other. The plates are initially spaced apart a distance sufficient to easily fit inside the flue of the chimney between diagonally disposed corners thereof with a space between the plate 5 and its adjacent corner sufficient to receive the mast 1. The plates and turnbuckle assembly when thus properly adjusted are inserted as a unit loosely downwardly into the flue 2 with the plate 6 sliding along the adjacent walls of one corner to be positioned snugly in said corner and with the plate 5 positioned in the flue adjacent the diagonally opposite corner. When the unit is so positioned in the flue, the straps 10 of plate 5 and 15 of plate 6 will extend across and be hooked over adjacent portions of the top edge of the flue wall 4 as shown in Figure 1. The mast 1 is then loosely inserted downwardly into the space between the plate 5 and the adjacent corner until its lower end seats on the seat 9 of plate 5. The nut 19 is then rotated further in a direction to separate the plates farther from each other and press the plate 6 tightly against the walls of its adjacent corner and to press the plate 5 into tight engagement with the mast 1 to thereby clamp the mast securely between said plate and the walls of the flue. Preferably spring washers 20 and 21 are provided for locking the nuts 18 and 19 respectively in their adjusted positions. To remove the mast 1, the nut 19 is turned in the opposite direction or away from the end of the sleeve for retraction of the clamping plate 5 and consequent releasing of the mast, after which the mast may be lifted out of the flue.

It will be noted that the lower end of the mast seats on the seat 9 of plate 5 and that the edges of the wall of the body of said plate 5 engage the mast over a considerable area thereby firmly supporting the mast and securely clamping it against the wall of the flue.

It will be understood that the mast 1 instead of being circular in cross section may be square, hexagonal or other shape in which case the clamping plate 5 will be shaped to conform to or grip the outer surface thereof.

The plates with their straps are so shaped that no damage can result to the chimney and only the straps are visible. Furthermore the straps in addition to supporting the plates prevent any tendency of the plates to turn out of alignment with each other or with the mast.

Due to the interconnection between the plates 5 and 6, the weight of the mast and supported antenna is distributed over both plates.

While only one pair of clamping plates is shown for supporting a single mast, another pair of plates might be installed in the other opposed corners for supporting another mast. It will also be understood that instead of supporting a mast, the improved apparatus is capable of supporting flag poles, pipes and the like.

Changes in details of construction might be made without departing from the principle of the invention.

Having thus described the invention, what I claim is:

1. Mounting for supporting a television mast in the flue of a chimney comprising a pair of elongated plates semispherical in cross section, each plate having opposed straps at one end thereof for supporting the plate at the top of a chimney, one of said plates having a seat at its opposite end for supporting the end of a mast, a laterally projecting stud on one of said plates, a laterally projecting tubular internally screw-threaded boss on the other of said plates, a tubular member supported at one end on said stud, an externally screw-threaded rod slidable in said tubular member and having a portion protruding from one end of said tubular member, said protruding portion being in threaded engagement with said boss, and a nut on said protruding end of said rod to abut the end of said tubular member, whereby rotation of the nut in one direction will spread the plates apart and rotation in the opposite direction will permit them to move toward each other.

2. As an article of manufacture, a plate for supporting and clamping a mast in the flue of a chimney or the like consisting of an elongated body having a concave face to engage the mast, opposed straps at one end thereof for engagement with the top edge of a chimney and having a seat at its other end for supporting the end of a mast in upright position.

3. Mounting for supporting a television mast in the flue of a chimney comprising a pair of elongated plates semispherical in cross section, a laterally projecting stud on one of said plates, a laterally projecting tubular internally screw-threaded boss on the other of said plates, a tubular member supported at one end on said stud, an externally screw-threaded rod slidable in said tubular member and having a portion protruding from one end of said tubular member, said protruding portion being in threaded engagement with said boss, and a nut on said protruding end of said rod to abut the end of said tubular member, whereby rotation of the nut in one direction will spread the plates apart and rotation in the opposite direction will permit them to move toward each other.

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