March 11, 1924. 1,486,826

W. J. ATKINSON

METAL FITTING

Filed June 28, 1923

Fig. 1.

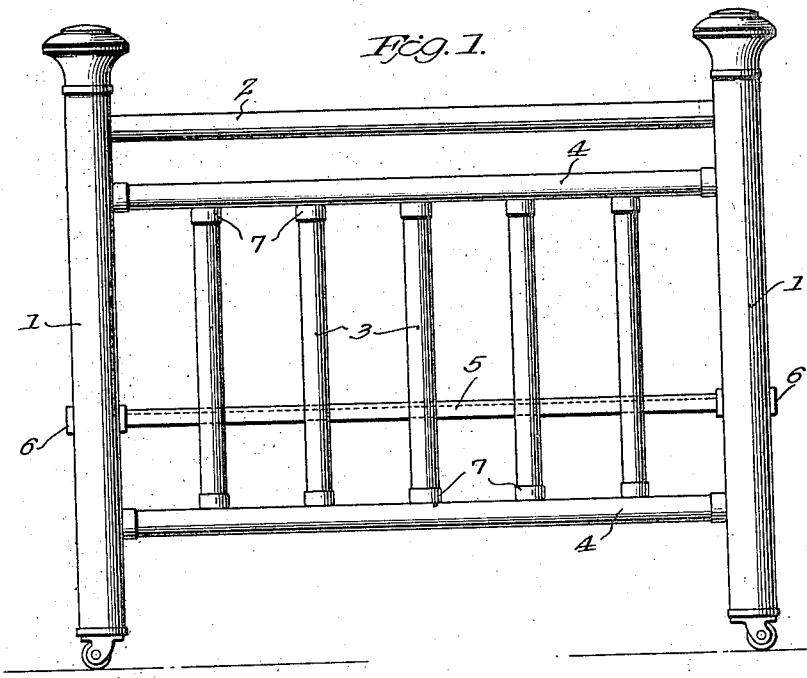


Fig. 2.

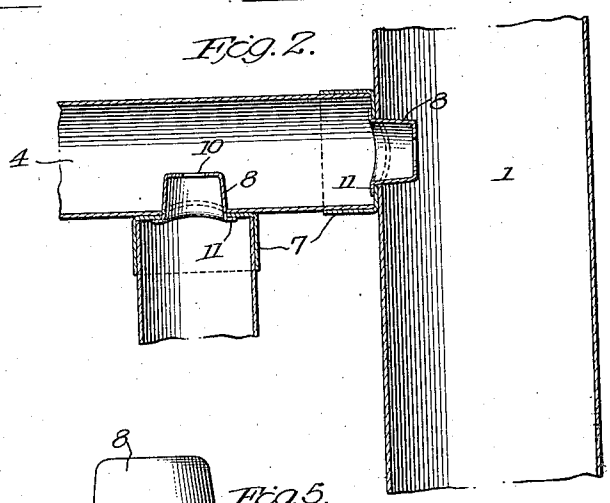


Fig. 3.

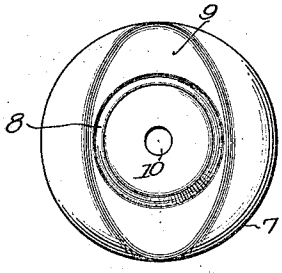


Fig. 4.

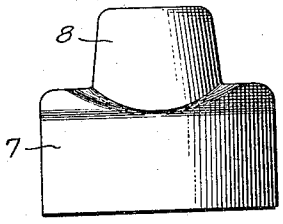
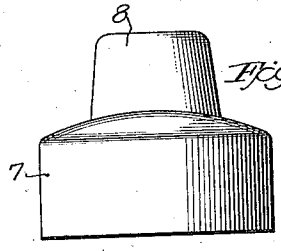


Fig. 5.



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his Attorneys

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UNITED STATES PATENT OFFICE.

WILLIAM J. ATKINSON, OF ATLANTA, GEORGIA.

METAL FITTING.

Application filed June 28, 1923. Serial No. 648,260.

To all whom it may concern:

Be it known that I, WILLIAM J. ATKINSON, a citizen of the United States, and resident of Atlanta, county of Fulton, State of Georgia, have invented an Improvement in Metal Fittings, of which the following description, in connection with the accompanying drawings, is a specification, like characters on the drawings representing like parts.

This invention has reference to improvements in joint construction and relates particularly to ferrule fittings adapted for use in the construction of metal beds.

My invention aims to provide an improved fitting for fastening together the component parts, such as the filler rods and cross rails, of a bed; although it will be understood that it is adapted for use in other joint constructions.

In the drawings, wherein I have illustrated a preferred form of the invention,

Figure 1 is an elevation of the foot panel of a bed embodying my invention;

Fig. 2 is a fragmentary sectional view of a part of Fig. 1;

Fig. 3 is a bottom plan view of one form of my improved fitting;

Fig. 4 is a side elevation of the same; and

Fig. 5 is a side elevation taken at right angles to Fig. 4.

In the illustrative form of the invention shown in the drawings, my improved fitting is applied to the foot panel of a colonial style bed, but it will be understood that the invention is applicable to other joint constructions. Referring to Fig. 1, the bed panel comprises the posts 1 connected by a top cross rod 2 which is preferably rigidly secured thereto, and a panel of filler rods 3, secured at their ends to cross rods 4, which are connected to the posts. A lower cross rod or bar 5 may be secured to the rail locks 6 on the posts 1 to increase the rigidity of the construction.

To provide a simple and easily assembled joint for connecting the filler rods or spindles 3 to the cross rods 4, and the cross rods to the posts 1, cup shaped ferrule fittings 7, preferably stamped from sheet metal, are contrived to slide over the ends of the tubes in frictional engagement therewith. Each of these ferrules has a cup shaped tapered extension portion 8, preferably integral with the bottom of the ferrule, and adapted to be inserted in an opening in one or the other of the cross rods 4 much smaller in diameter than the diameter of the filler rods. Thereby large openings, in the cross rods which weaken the structure, are avoided. The bottoms of the cups or ferrules are curved as shown at 9 in Fig. 3 on an arc of substantially the same radius as that of the tube against which they are to be fitted so as to conceal the extensions 8 when they are inserted in the openings and also permit a close fitting joint between the fitting and the tubes. Also, the ferrule is seated firmly upon the transverse rod and thus co-operates to prevent rocking movement or lateral play of the extensions within their respective openings.

The ends of the extensions 8 of the ferrule fittings preferably have openings 10 to permit paint to drain through them when they are used on the lower ends of the filler rods.

It will be observed that the extension portions of the ferrule fittings are slightly tapered so as to permit easy insertion in the openings and also to insure a tight fit when they are forced in. I have shown these extension portions as separate sheet metal stampings secured by welding or crimping them at 11 (see Fig. 2) over the inside edge of the opening in the ferrule 7.

When it is desired to assemble the elements of a bed of the type shown, the panel of filler rods 3 and cross rods 4 is first made up, whereupon the ferrule extensions on the cross rods 4 are inserted in the proper openings in the posts 1. These operations may be readily performed without the use of special operations, such as brazing or welding, and without screwed or other mechanical connections requiring time or skill to assemble. The upper cross rod 2 and cross bar 5 are then rigidly secured to the posts in any suitable and convenient manner well known in the art.

Thus it will be seen that my improved ferrule fitting makes a strong, neat and sanitary joint, easy and cheap to make and assemble. Another advantage is that it may be used to join spindles or filler rods of large diameter to cross rods or tubes of smaller diameter without weakening the cross rods unduly.

Obviously my invention is not restricted to the use described and is susceptible of various changes.

Having thus described an illustrative embodiment of my invention, what I claim and desire to secure by Letters Patent is:

1. A fitting for the tubular members of metal beds and the like comprising, in combination, a cup shaped, sheet metal ferrule having an opening in its lower end, and a tapered extension secured in said opening adapted to enter and be held in frictional engagement with the wall of an opening of the same shape in a transverse tubular element, said ferrule having a curved bottom to conform to the periphery of the tubular element adjacent said extension.

2. A fitting for tubular metal beds comprising, in combination, a cup shaped, metal ferrule, and a tapered extension on the ferrule adapted to enter and be held in frictional engagement with the wall of an opening of substantially the same shape in a transverse tubular element of the bed, said ferrule having a bottom shaped to conform to the periphery of the tubular element adjacent said extension.

3. A fitting for tubular metal beds and the like, comprising, in combination, a cup shaped metal ferrule portion adapted to engage the end of a tubular member of the bed and a reduced tapered extension on said ferrule adapted to enter an opening in a transverse tubular element of the bed and be held therein by friction, said ferrule portion presenting a seat for the end of said tubular element which it engages and a portion for engaging the outer surface of said transverse tubular element adjacent said opening.

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

WILLIAM J. ATKINSON.