

F. G. GALE.

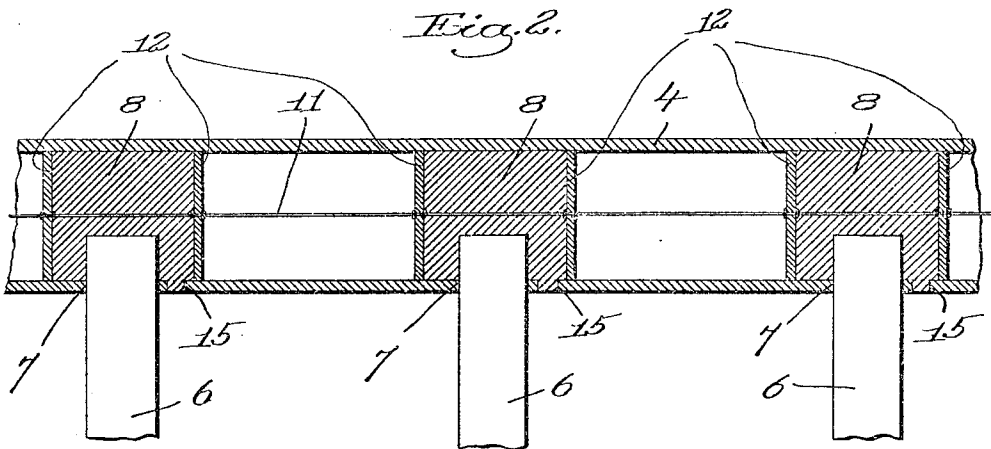
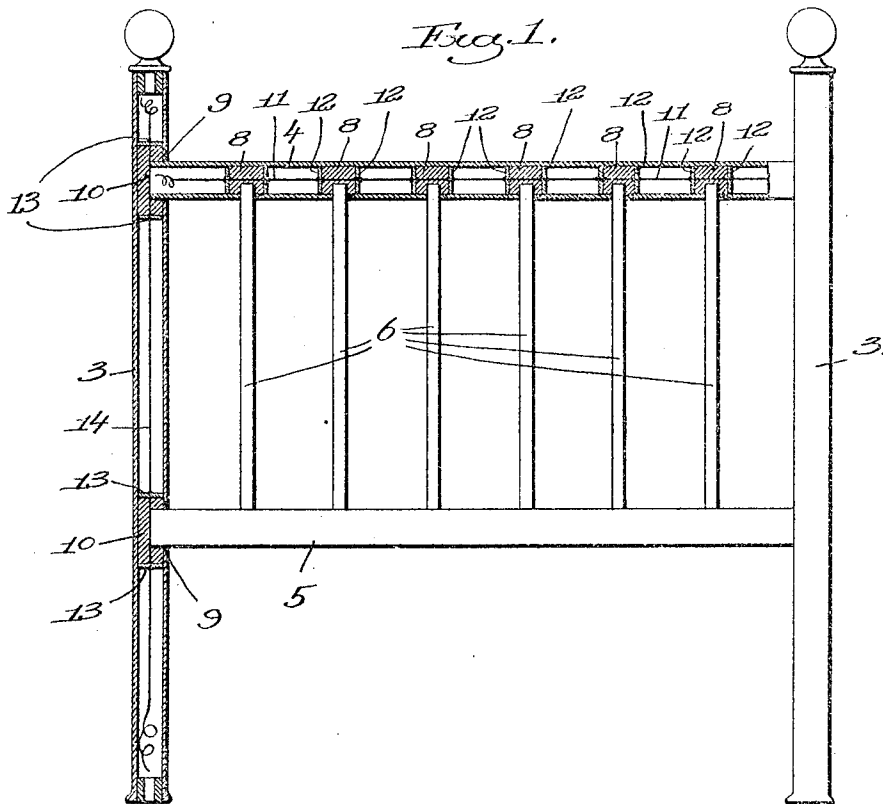
BEDSTEAD.

APPLICATION FILED MAR. 5, 1909.

944,084.

Patented Dec. 21, 1909.

2 SHEETS—SHEET 1.



witnesses:

Fred. S. Grunkef.
Joseph M. Ward,

Inverdor.
Francis G. Gale,
by Messrs Gregory
attys.

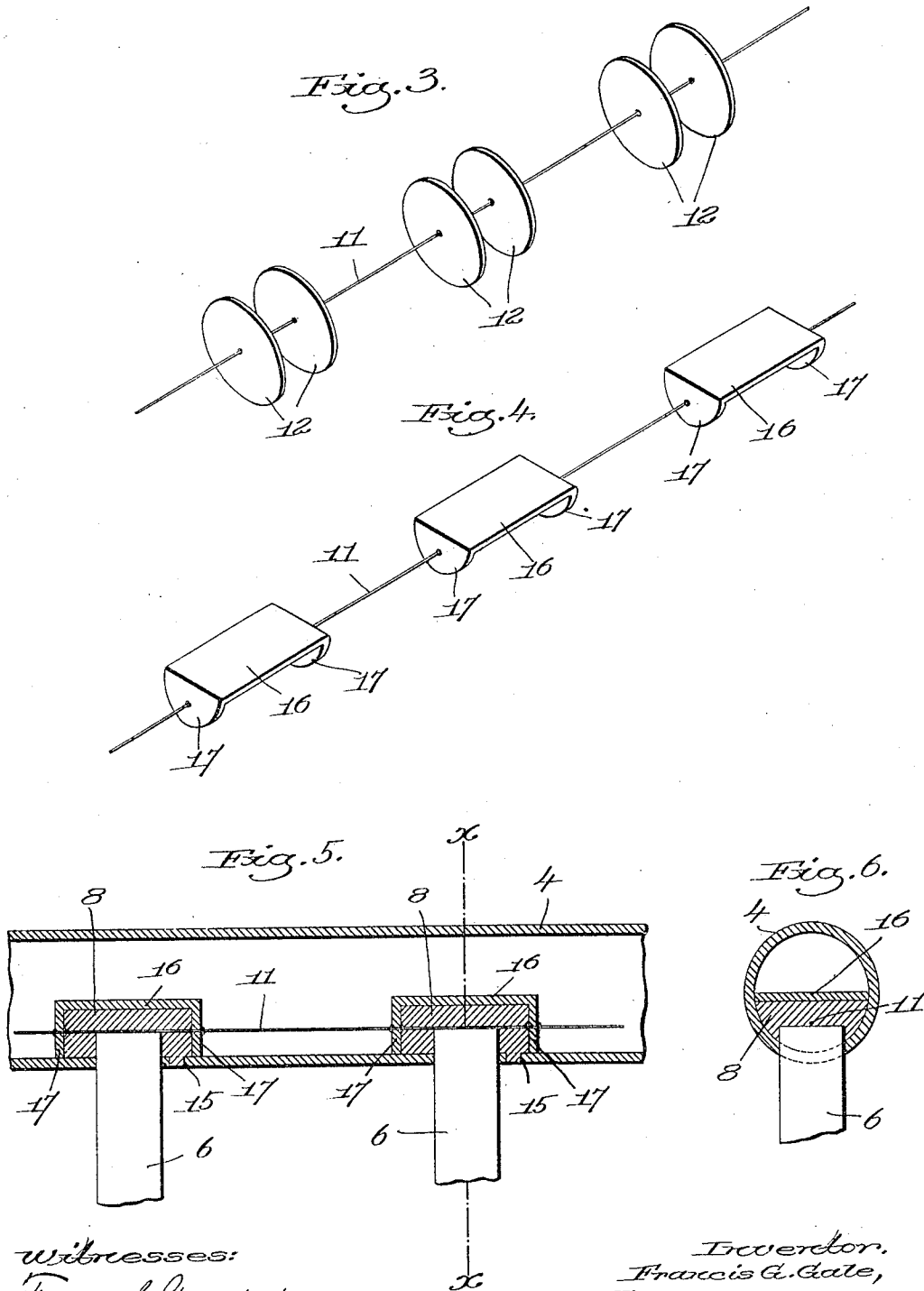
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Joseph M. Ward.

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UNITED STATES PATENT OFFICE.

FRANCIS G. GALE, OF WATERVILLE, QUEBEC, CANADA.

BEDSTEAD.

944,084.

Specification of Letters Patent.

Patented Dec. 21, 1909.

Application filed March 5, 1909. Serial No. 481,320.

To all whom it may concern:

Be it known that I, FRANCIS G. GALE, a subject of the King of Great Britain, residing at Waterville, Province of Quebec, Dominion of Canada, have invented an Improvement in Bedsteads, of which the following description, in connection with the accompanying drawing, is a specification, like characters on the drawing representing like parts.

In making iron bedsteads it has heretofore been customary to connect the rods, tubes or other parts of which the end frame is made by means of chills which are located on the exterior of the rods or tubes at the points where they join. One objection to this construction is that the exposed chills are apt to become broken during shipment or during use, and when this occurs, the connecting means for uniting the parts is gone and the bed is sometimes rendered unfit for further use in this way. It has been proposed to make a bed frame heretofore wherein certain of the parts, such as the pillars and cross pieces, are made of tubes, with concealed chills, and this has been done by extending the end of one of the parts to be connected into an aperture in the side wall of a tubular part, and then pouring the chill into the tubular part to form a body of cast metal therein which connects the two parts. One objection to this method as heretofore carried out is that an excessive amount of cast metal is frequently used in making the chill with the result that the bed when completed is apt to be very heavy. I have devised a new construction for a bed frame having concealed chills in which the chills may be poured in the interior of the tubular members without any danger of using an excessive amount of metal, and a bed frame embodying my invention, therefore, is not any heavier than a bed frame made according to the old method.

My invention is also of such a construction that the parts of the bed can be rapidly assembled and the chills can be poured accurately without necessitating any particular care in the pouring.

I will first describe some embodiments of my invention and then point out the novel features thereof in the appended claims.

In the drawings, Figure 1 is a view of the end frame of the bedstead with parts broken out showing my improvements; Fig. 2 is an enlarged section showing the manner in

which the compartments for the chills are made; Figs. 3 and 4 are views illustrating the manner in which the partitions for forming the compartments are connected together so that they may be readily drawn into the tubular parts; Fig. 5 is a view similar to Fig. 2 showing a modification of the invention; Fig. 6 is a section on the line *x-x*, Fig. 5.

My invention is applicable to bed frames of any construction, provided tubular members are used to a certain extent in making them.

In Fig. 1 I have shown a bed frame comprising the two pillars 3 which are connected by cross pieces or rails 4 and 5 and these cross pieces or rails 4 and 5 are in turn connected by vertical members 6. I have herein shown the pillars 3 and the cross pieces 4 and 5 as being tubular in shape. In connecting the uprights 6 to the cross pieces 4 and 5 the latter are provided with openings 7 into which the ends of the uprights 6 are inserted, and the uprights are connected to the cross pieces by pouring chills 8 into the cross pieces at the points where the uprights enter the same. Similarly for connecting the cross pieces 4 and 5 to the pillars 3, said pillars are provided with openings 9 into which the ends of the cross pieces are inserted, and the cross pieces are held in place by chills 10 which are poured into the pillars at the point where the cross pieces enter them.

In order to avoid the use of an excessive amount of metal in forming the chills, I propose to place in the tubular members within which the chills are poured partitions which form between them comparatively small compartments into which the chills 8 and 10 are confined. If the tubular member is comparatively small, these partitions may be in the form of disks which are of a diameter substantially equal to the interior diameter of the tubular member, as shown in Figs. 1, 2 and 3. In order to properly place the partitions within the tubular members I propose to string the partitions together on a wire or other connection 11 so that a string of partitions may be drawn into the end of the tubular member. Fig. 3 shows a string of these partitions which are designated by 12, and which are strung on the wire or connection 11. They are soldered or otherwise secured to the wire so as to prevent their moving longitudinally

of the wire, and they may be readily placed on the wire at the proper intervals, so that when the wire is drawn into the tube, as shown in Fig. 1, the partitions will come at the proper points to form the compartments for receiving the chills 8. In the same way the partitions 13 for forming the compartments for the chills 10 in the pillars may be secured to a wire or flexible connection 14, and said partitions may then be drawn into the pillar by means of a wire.

In assembling the bed after the tubular members have been cut to the proper length, the appropriate string of partitions is drawn into the tube, and thereafter the parts are assembled. When the parts have been assembled the chills 8 and 10 are poured into the compartments thus formed and this may conveniently be done by forming the tubular member with a pouring gate 15 for each compartment and pouring the metal forming the chill into said gate. The compartments confine the chills and prevent them from filling any portion of the tubular member except that between the partitions. In this way it is possible to make a bed frame with a minimum amount of material forming the chill and yet to have the chills entirely concealed within the tubular members.

If the tubular members are comparatively large, it may be desirable to make the compartments extend only part way across the same, in which case I propose to use partitions formed as shown in Figs. 4, 5 and 6. These partitions are made from sheet metal bent to form the body portion 16 and the two curved end portions 17. The body portion 16 will preferably be wide enough to extend across the tubular member, as shown in Fig. 6, and the end portion 17 will be of a shape to fit the sides of the tubular member and form between them and the body portion 16 a compartment to receive the end of the member 6. This compartment may be filled by pouring the cast metal through the gate 15, as above described, and while it is large enough to contain a sufficient amount of cast metal to properly unite the members 4 and 5, yet the amount of metal is not such as to materially increase the weight of the bed frame.

It will be understood from the foregoing that my invention may be embodied in bed frames of a great variety of shapes, pro-

vided certain of the parts forming the bed frame are made tubular so that a string of partitions may be drawn thereinto to form the compartments to receive the chills.

Having fully described my invention, 60 what I claim as new and desire to secure by Letters Patent is:—

1. In a bed frame, the combination with a tubular member having an opening, of separate partitions situated within the tubular member and extending transversely thereof, said partitions forming between them a compartment with which the opening communicates, a second member extended into said member, and a chill filling said compartment and uniting the two members together.

2. In bed frame construction, the combination with a tubular member having openings, of a plurality of separate partitions situated within and extending transversely of said tubular member and forming compartments therein into which said openings lead, other members extending into said openings, and chills filling said compartments and uniting said members together.

3. The method of making bed frames which consists in forming a tubular member with an opening, connecting together a pair of partitions, drawing said partitions into the tubular member until they form between them a compartment into which said opening leads, inserting another member into said opening, and pouring molten metal into the compartment formed between the partitions.

4. The method of making bed frames which consists in forming a tubular member with a plurality of openings, connecting together a plurality of pairs of partitions by means of a flexible connection, drawing said partitions into said tubular member until each pair of partitions is positioned to form a compartment between them into which an opening in the tubular member leads, inserting the ends of other members into said opening, and pouring molten metal into said compartments.

In testimony whereof, I have signed my name to this specification, in the presence of two subscribing witnesses.

FRANCIS G. GALE.

Witnesses:

AMY E. ARMSTRONG,
E. B. HUNTINGTON.