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PATENTED JULY 16, 1907.

C. WINKLER.

BUTT HINGE.

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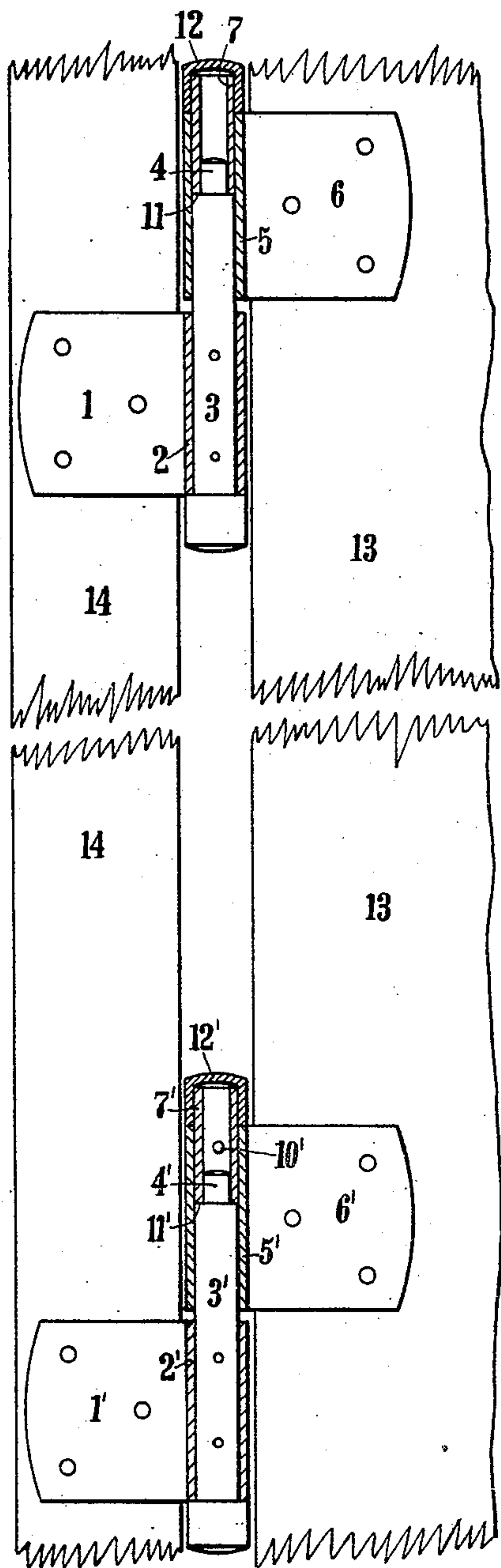


Fig. 1.

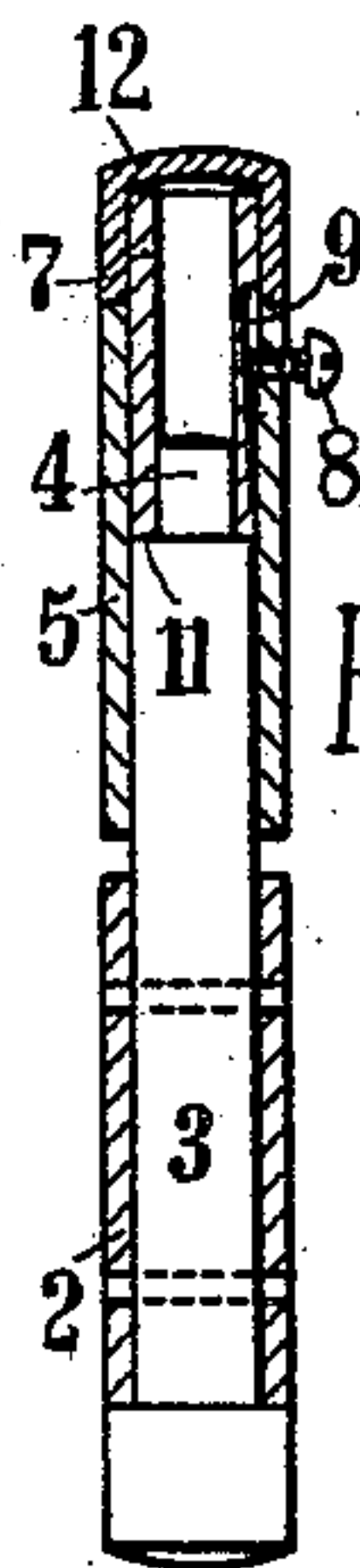


Fig. 2.

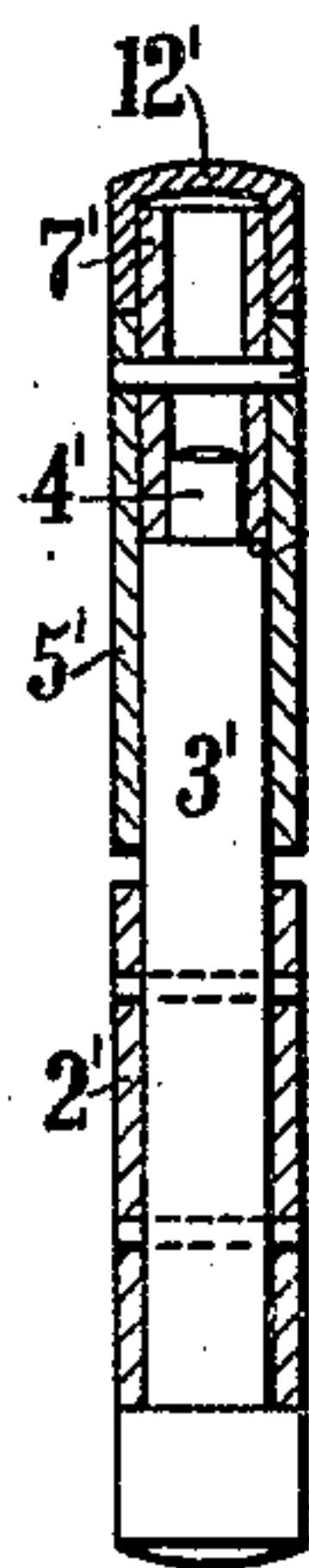


Fig. 3.

Witnesses:

C. M. Crawford
J. J. Morgenthau

Inventor:-

Carl Winkler

by

B. Winger

Attorney

UNITED STATES PATENT OFFICE.

CARL WINKLER, OF OLBERNHAU, GERMANY.

BUTT-HINGE.

No. 860,615.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, CARL WINKLER, a subject of the German Emperor, residing at Olbernhau, in the Kingdom of Saxony and Empire of Germany, have invented certain new and useful Improvements in Butt-Hinges, of which the following is a specification.

The present invention relates to butt-hinges of the well-known type in which in the upper half of the hinge a small tube is provided, which is supported on the hinge-pivot and thus carries the upper half of the hinge. This small tube serves for the reception of oil and is accessible from the outside when the upper hinge-cap is taken off.

Now this invention consists in that the small tube in the upper butt-hinge, which serves as a supporting bearing and for lubrication, is so arranged as to be capable of being set or adjusted in height or in a vertical direction or the longitudinal direction of the hinge and fixed after adjustment, whereby the mounting of the door, window or the like is facilitated.

In the accompanying drawings, Figure 1 shows parts of a door or window provided with upper and lower butt-hinges, the latter being shown in section, while Figs. 2 and 3 show respectively the upper and lower butt-hinges in vertical section, the planes of section being at right angles to the plane of Fig. 1. The lower butt-hinge (see Fig. 3) possesses the well known small supporting tube 7' which rests with its annular end surface 11' on the mandrel or pivot 3', 4' of the lower half 1', 2' of the hinge. Said tube can be provided with oil after removing the upper socket-cap 12', and is rigidly connected with the upper half 5', 6' of the hinge by means of a pin 10'. Now the upper butt-hinge and the lower one differ from each other in that the small tube 7 resting on the pivot 3, 4 of the lower half 1, 2 of the hinge is not rigidly connected with the upper half 5, 6 of the hinge, but may be moved up and down in it and be fixed in a suitable position, by means of the screw 8 for example. For this purpose the small tube 7 of the upper butt-hinge possesses a flat portion or the like on its outer wall at 9. The object of making the upper small tube adjustable is to facilitate mounting the door, window or the like in such a way that the two upper halves of the hinges bear equably on their respective pivots.

It will be noted that the surface 9, against which the set screw 8 bears, is downwardly and outwardly inclined. The object of this construction is to enable the set screw, which clamps the tube 7 and the upper hinge-part together, to sustain the weight of the door. It will be obvious that, once the screw is set at any point on the incline, the latter will prevent the tip of the screw from slipping downwardly and consequently the door from settling. Of course, when I refer to the screw as sustaining the weight of the door, I do not in-

tend to suggest that the lower hinge has not its portion of the weight to sustain.

The manner in which doors, windows or the like provided with the new butt-hinges are mounted is as follows:—After the door or window jamb 14 and also the door or window 13 has been provided with the proper parts of the butt-hinges, the sockets 5, 5' of the portions which are screwed to the door or window are first pushed over the pivots 3, 3' until the small tube 7' of the lower hinge rests at 11' on the lower pivot 3'. The small tube 7 of the upper hinge does not as yet rest on the pivot 3. In order to effect this, the small tube 7 of the upper part of the upper hinge is pushed from above into the socket 5 until it likewise rests on the upper pivot 3 at 11, and then in this position it is connected with the socket 5 by tightening up the screw 8, after which the socket 5 is closed by means of the cap 12.

Having now fully described my invention I declare that what I claim is:—

1. A butt-hinge for doors, windows and the like, consisting of two hinge-parts and having in combination a pivot to which the lower part of the hinge is attached, an adjustable bearing tube provided in the upper part of the hinge and cooperating with said pivot, and means carried by the upper hinge-part adapted to engage laterally with said tube for connecting the hinge-part and tube rigidly together and sustaining the weight of the door.

2. A butt-hinge for doors, windows and the like, consisting of two hinge-parts and having in combination a pivot to which the lower part of the hinge is attached, an adjustable bearing tube provided in the upper part of the hinge and cooperating with said pivot, and means in the form of a set screw carried by the upper hinge-part adapted to engage laterally with said tube for connecting the hinge-part and tube rigidly together and sustaining the weight of the door.

3. A butt-hinge for doors, windows and the like, consisting of two hinge-parts and having in combination a pivot to which the lower part of the hinge is attached, an adjustable bearing tube provided in the upper part of the hinge for cooperation with the pivot and having a lateral surface region downwardly and outwardly inclined, and a set screw carried by the upper hinge-part and adapted to engage at its tip with such inclined region.

4. A butt-hinge for doors, windows and the like, consisting of two hinge-parts and having in combination a pivot to which the lower part of the hinge is attached, an adjustable bearing tube provided in the upper part of the hinge and cooperating with said pivot, and means adapted both to clamp the upper hinge-part and the tube rigidly together and to sustain the weight of the door.

5. In butt-hinges for doors, windows and the like consisting of two hinge-parts, the combination of a pivot to which the lower part of the hinge is attached, an adjustable tube provided in the upper half of said hinge, a cap for said tube and means for fixing the latter in the upper half of the hinge.

In testimony whereof I affix my signature in presence of two witnesses.

CARL WINKLER.

Witnesses:

MORRIS LIPMAN,
THOMAS H. NORTON.