R. I. GRAF.

METHOD OF ASSEMBLING AND SECURING TOGETHER SEPARATED PARTS.

APPLICATION FILED JUNE 16, 1915.

Patented Dec. 21, 1915.

1,165,089.

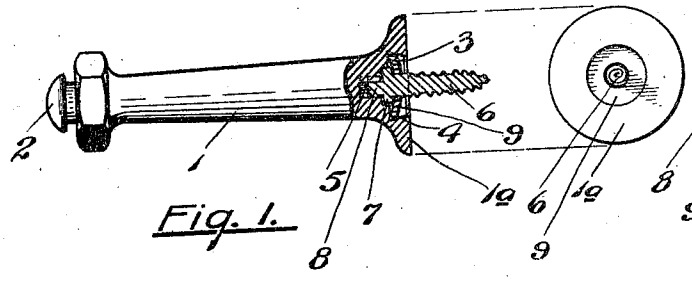


Fig. 1.

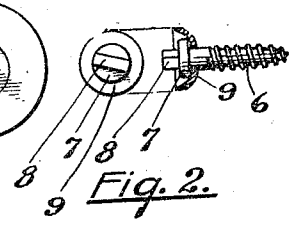


Fig. 2.

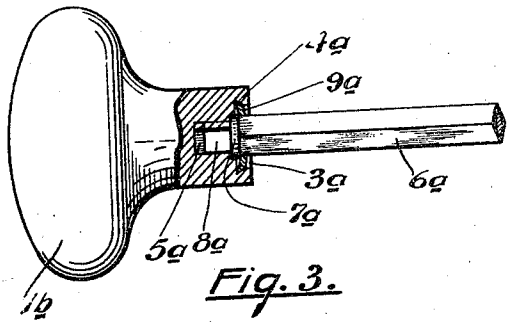


Fig. 3.

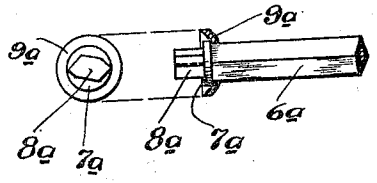


Fig. 4.

Inventor

Raymond Ivan Graf

By Moulton & Linnance

Attorneys.

UNITED STATES PATENT OFFICE.

RAYMOND IVAN GRAF, OF GRAND RAPIDS, MICHIGAN, ASSIGNOR TO NATIONAL BRASS COMPANY, OF GRAND RAPIDS, MICHIGAN, A CORPORATION OF MICHIGAN.

METHOD OF ASSEMBLING AND SECURING TOGETHER SEPARATED PARTS.

1,165,089. Specification of Letters Patent. Patented Dec. 21, 1915.

Application filed June 16, 1915. Serial No. 34,503.

To all whom it may concern:

Be it known that I, RAYMOND IVAN GRAF, a citizen of the United of America, residing at Grand Rapids, in the county of Kent and State of Michigan, have invented certain new and useful Improvements in Methods of Assembling and Securing Together Separated Parts; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to a method of assembling and securing together elements to make complete articles of hardware.

It is the object and purpose of the invention to provide efficient means for assembling the different parts of hardware structures which can be readily and easily performed and which is very economical in cost of manufacture.

The application of this method and means to various articles is shown in the accompanying drawing, in which:

Figure 1 is a side elevation with parts shown in section illustrating the assembly of a door buffer and the attaching screw therefor, an end elevation of the device also being shown in the figure. Fig. 2 is a similar view of the screw and the connecting disk which is used to connect it with the body of the door buffer. Figs. 3 and 4 are views similar to Figs. 1 and 2 showing the use of my invention in attaching a door knob to the latch operating rod.

Like reference characters refer to like parts throughout the several views of the drawing.

In the assembly of the door buffer and attaching screw the body 1 has at one end the usual buffer head 2 and at the opposite end is of greater diameter and formed with a base 1^a in which a depression 3 is cut having inclined sides 4. A smaller depression 5 is cut in the body 1 and is positioned substantially centrally of the larger depression 3. The depression 5 may be of any suitable conformation.

An attaching screw 6 adjacent its end is provided with a collar 7 and projecting at right angles from the collar is a stud or projection 8 adapted to seat in the depression 5. A dome-like disk 9 having a central opening to receive the shank of the screw 6 passes over the screw and bears against the collar 7, this disk being of a diameter such that its outer edges will be barely received within the outside opening of the depression 3. The screw and disk are seated within the depression 3 with the projection 8 within the depression 5 and the disk is then subjected to pressure or otherwise operated upon so that it is flattened, the outer edges of the disk coming into contact with the inclined sides 4 of the depression 3 as shown. In this manner a very firm and substantial connection of the attaching screw to the body 1 of the buffer is effected and one which cannot be broken except by distortion of the connecting disk 3. The rectangular shape of the projection 8 and of the depression 5 receiving it is for the purpose of causing the screw to always turn with the body and any shape of projection and depression that will afford this is all that is necessary.

In Figs. 3 and 4 the door knob 1^b is connected to the rod 6^a in the same manner that the body 1 is connected to the screw 6 as heretofore described, the depression 3^a having inclined sides 4^a with a central irregular depression 5^a adapted to receive the projection 8^a of the rod 6^a being similar in every respect to depressions 3 and 5 with the inclined sides 4 to depression 3 in the predescribed structure. The disk 9^a seats in the depression 3^a and engages against the collar 7^a in identically the same manner and secures the knob to the rod the same way. The only modification required is that the central opening in the disk 9^a be of a shape to pass over the rod.

Various other modifications and ways of using this method and means of assembling the various parts or elements of articles of hardware will occur to others skilled in the art. The invention accordingly is not limited to the disclosures made but covers all modifications within the scope of the append claim which defines the invention.

I claim:—

The method of assembling and connecting separated parts which consists in providing two parts to be connected together one of said parts having a depression with

inclined sides therein, inserting the other part partially into said depression, then passing a securing disk of dome-like formation over said other part and into the depression, and then flattening the disk to force its edges against the inclined sides of the depression, substantially as described.

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

RAYMOND IVAN GRAF.

Witnesses:
FRANK E. LIVERANCE, JR.,
H. H. YARRINGTON.