

H. P. HOOD & G. W. JOSEPH.
Adjustable Handle-Attaching Device.

No. 165,583.

Patented July 13, 1875.

Fig. 1.

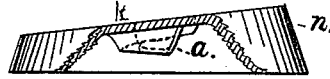


Fig. 2.

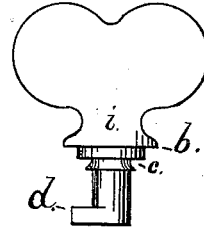


Fig. 3.

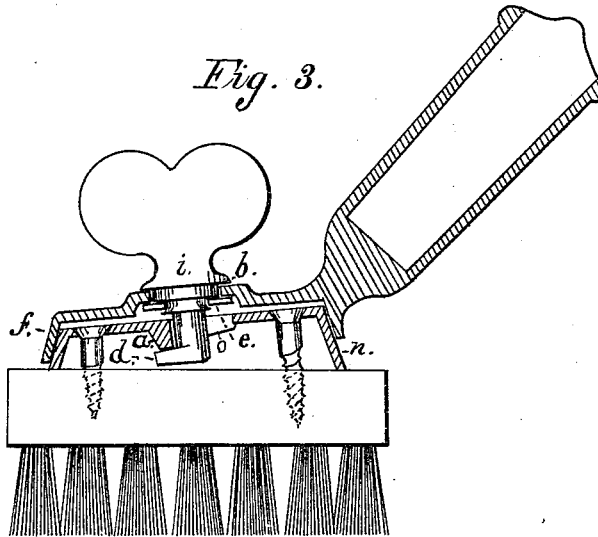


Fig. 4.



Witnesses.

M. D. Faulk
George A. Beaver.

Inventors:

Harrison P. Hood.
George W. Joseph.

UNITED STATES PATENT OFFICE.

HARRISON P. HOOD AND GEORGE W. JOSEPH, OF INDIANAPOLIS, INDIANA.

IMPROVEMENT IN ADJUSTABLE HANDLE-ATTACHING DEVICES.

Specification forming part of Letters Patent No. **165,583**, dated July 13, 1875; application filed April 9, 1875.

To all whom it may concern :

Be it known that we, HARRISON P. HOOD and GEORGE W. JOSEPH, both of the city of Indianapolis, county of Marion, State of Indiana, have invented certain Improvements in Adjustable Handle-Attaching Devices, of which the following is a specification:

Our invention relates to an improvement in an adjustable handle-attaching device for which the said Harrison P. Hood received Letters Patent of the United States dated October 20, 1874, and numbered 156,158. In his device as there shown there are two conical plates, one of them fitting over the other, and having a socket for the reception of a handle. These two plates are fastened together by means of a thumb-screw, which screw passes through the socket-plate and is retained therein by means of riveting or upsetting a portion of the thumb-screw.

Our improvement consists, first, in certain construction whereby the two plates are fastened together by means of a key-bolt instead of the screw.

The accompanying drawings illustrate our invention.

Figure 1 is an elevation of a conical plate with a portion of one side broken away, which is attached by means of wood-screws or otherwise to the brush or other article to which the adjustable handle is to be attached. *a* is a projection on the under side of said plate, placed at or near its center, and having a central hole, *o*, through it, for the passage of a key-bolt. The under side or edge of this projection *a* forms an inclined plane passing nearly around the central hole.

Fig. 2 is a side view of the key-bolt, which is cylindrical in form below the shoulder *b*, except at the lower end, which is provided with the lug *d*. At a short distance from the shoulder *b* is a groove, *c*, which is for the purpose of receiving a washer for retaining the key-bolt in the socket-plate, as hereinafter more fully described.

Fig. 3 is an elevation of our invention, showing the several parts in their proper relative position and attached to a brush, the socket-plate *f* and conical plate *n* being shown in section. The key-bolt passes through the socket-plate, the shoulder *b* resting on the top

of plate *f*, and the washer *e* preventing its return.

The washer *e* is applied in the following manner: It is first formed from a flat plate of thin metal having a hole through its center of the same diameter as the key-bolt at the smallest part of the groove *C*. A tapering punch is then forced through the hole in the washer until it is sufficiently large to pass over that part of the key-bolt below the groove, without, however, removing any metal, thus causing the washer to assume a conical shape, as shown in Fig. 4. The key-bolt *i* having been passed through the socket-plate, the washer is placed upon it below the socket-plate, and by means of a tubular punch passing over the lower end of the key-bolt, the washer is pressed out flat, as at first, thus reducing the size of the hole to its former dimensions, and closing it tightly around the key-bolt in the groove *C*.

The operation of our device is as follows: The key-bolt having been secured to the socket-plate, as before described, the socket-plate is placed over the conical and inclined plate *n*, Fig. 1. The key-bolt *i* passing through the conical plate *n*, the upper side of the lug *d* engages the inclined plane *a*, and as the key-bolt is revolved the two plates are clamped together.

By this method of construction we are enabled to make our handle attachment much cheaper than heretofore, and at the same time make it more durable.

The plate *n* being inclined upon its upper surface, as shown at *k*, the handle can be set at different angles by turning it upon this plate and fastening it thereto for convenience in scrubbing.

We claim as our invention—

In a handle-attaching device, the conical and inclined plates *f* and *n*, clamped together by means of the key-bolt *i*, provided with the lug *d*, operating upon the inclined plane *a*, substantially as shown and described.

HARRISON P. HOOD.
GEORGE W. JOSEPH.

Witnesses:
GEO. W. LEGGET,
WM. BICKFORD.