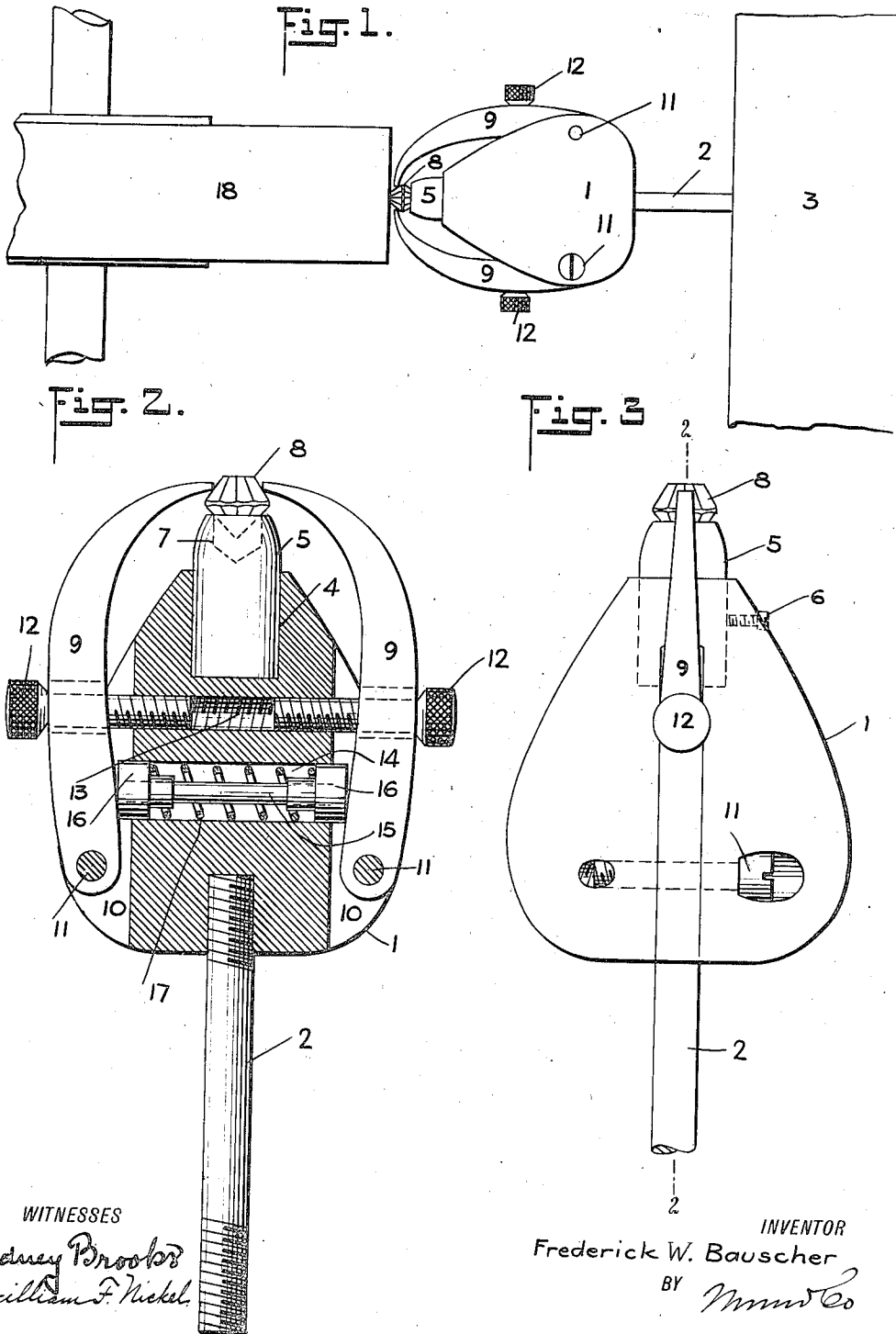


F. W. BAUSCHER.
DIAMOND HOLDER.
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1,045,664.

Patented Nov. 26, 1912.



WITNESSES
Sidney Brooks
William F. Nickel

INVENTOR
Frederick W. Bauscher
BY *Mum Co*
ATTORNEYS

UNITED STATES PATENT OFFICE.

FREDERICK WILLIAM BAUSCHER, OF NEW YORK, N. Y.

DIAMOND-HOLDER.

1,045,664.

Specification of Letters Patent.

Patented Nov. 26, 1912.

Application filed April 18, 1912. Serial No. 691,668.

To all whom it may concern:

Be it known that I, FREDERICK W. BAUSCHER, a citizen of the United States, and a resident of the city of New York, borough of Manhattan, in the county and State of New York, have invented a new and Improved Diamond-Holder, of which the following is a full, clear, and exact description.

My invention relates to an improved device for holding diamonds and other gems when the same are to be worked and polished, and it comprises a base so mounted that it can be moved into any position to suit the convenience of the operator, and provided with means for holding the gem securely in place until the operation of polishing is finished.

Reference is to be had to the accompanying drawings forming a part of this specification, in which the same characters of reference indicate the same parts in all the views.

Figure 1 is a view showing my improved diamond holder in position adjacent the grinding or polishing wheel; Fig. 2 is a longitudinal sectional view of the same on the line 2—2 of Fig. 3; and Fig. 3 is a side elevation of the parts shown in Fig. 2.

On the drawings the numeral 1 represents a body that may be made of steel or any other metal, which has a screw-threaded bore in its lower end to receive the threaded end of a shank 2. This shank 2 is made of some flexible metal like copper, and is screwed into a base 3. The flexible shank 2 permits the head to be bent over into any required position.

The outer end of the head or base 1 has a socket 4 to receive a plug 5, this plug being held in place by means of a fastening screw 6. The outer end of the plug is bored out as shown at 7, to receive the diamond or other gem shown at 8; and 9 are clamping arms which secure the diamond 8 in position with its inner end projecting into the recess 7. These clamping arms are pivoted to the head 1; and 10 are longitudinal recesses which receive the inner ends of these arms.

11 are pivot bolts passing through screw-threaded apertures in the body 1 and across the recesses or slots 10, the arms 9 having apertures to receive these bolts, so that they will be pivotally connected with the head 1.

12 are binding screws passing through

apertures in the arms 9 and having screw-threaded engagement with a transverse recess 13 formed in the head 1 and passing therethrough from the bottom of one slot or recess 10 to the other.

14 is another transverse recess or bore passing from the bottom of one slot 10 to the other, and in this bore is placed a spindle 15 on which are slidably mounted heads 16, these heads having shoulders at their inner ends which are engaged by springs 17 under compression, these springs acting to force the heads 16 outward against the inner surface of the arms 9, so that when the screws 12 are loosened the arms 9 move apart and release the gem so that it can be taken out of the holder. The grinding or polishing wheel by means of which the gem is polished is shown at 18.

The manner of operation of my diamond holder is as follows: The gem is put in place in the recess 7 of the plug 5, and the bolts 12 are screwed up until the incurred ends of the arms 9 engage the gem and clamp it tightly in place. The head 1 can then be moved in any position of adjustment by bending the shank 2, and the gem polished on all sides by means of the wheel 18. By loosening the screws 10 the diamond or other gem can be turned around in the end of the plug 5, so as to bring the ends of the clamping arms 9 into contact with the gem at different points, and allow the entire surface of the gem to be exposed to the action of the wheel 18, in order to make a finished product.

I wish to have it understood that the construction shown in the drawings illustrates but one embodiment of my invention, and that I do not care to be limited thereto, but reserve to myself the right to make whatever changes fall within the scope and spirit of the same.

Having thus described my invention, I claim as new and desire to secure by Letters Patent:

1. In a device of the kind described, the combination of a head having a pair of longitudinal slots in its sides, a pair of clamping arms pivotally mounted in said slots, a transverse bore connecting the bottoms of said slots, a pair of heads mounted in said bore, resilient means interposed between said heads and forcing the same against the inner faces of the arms to spread the same,

and screw bolts passing through said arms and engaging the head to enable said arms to be secured in gripping position to hold a gem on the head to enable the said gem to be polished.

2. In a device of the kind described, the combination of a head, a pair of clamping arms pivotally mounted upon said head, means for causing said arms to move toward each other, said head having a transverse bore, and resilient means located in said bore and engaging the arms to spread the same.

3. In a device of the kind described, the combination of a head, a pair of clamping arms pivotally mounted on said head, means for moving said arms toward each other, said head having a transverse bore, a pair of movable members in said bore, and resilient means engaging said movable members to force them against said arms to spread the same.

4. In a device of the kind described, the combination of a head having a pair of clamping arms pivotally mounted upon the same, said head having a transverse bore therethrough, a rod mounted in said bore, a pair of slidable members mounted upon said rod, and resilient means encircling said rod

and engaging said members to force the same against the arms to spread the same. 30

5. In a device of the kind described, the combination of a head having a pair of longitudinal slots in its sides, a pair of clamping arms pivotally mounted in said slots, a transverse bore connecting the bottoms of said slots, a rod mounted in said bore, a pair of movable members carried by said rod, resilient means encircling the said rod and engaging said members to force the same against the inner sides of the arms to spread the same, and means for moving said arms toward each other. 35 40

6. In a device of the kind described, the combination of a head having a socket therein, a plug for said socket having a bore to receive a gem to be polished, and means carried by the head and passing into the same to engage the plug and hold the same in position. 45

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses. 50

FREDERICK WILLIAM BAUSCHER.

Witnesses:

ABE J. SEGAL,
E. H. SCHEUBER.