C. W. JONES.

INSTRUMENT HOLDER.

APPLICATION FILED JULY 24, 1906.

1,014,649. Patented Jan. 16, 1912.

Fig. 1

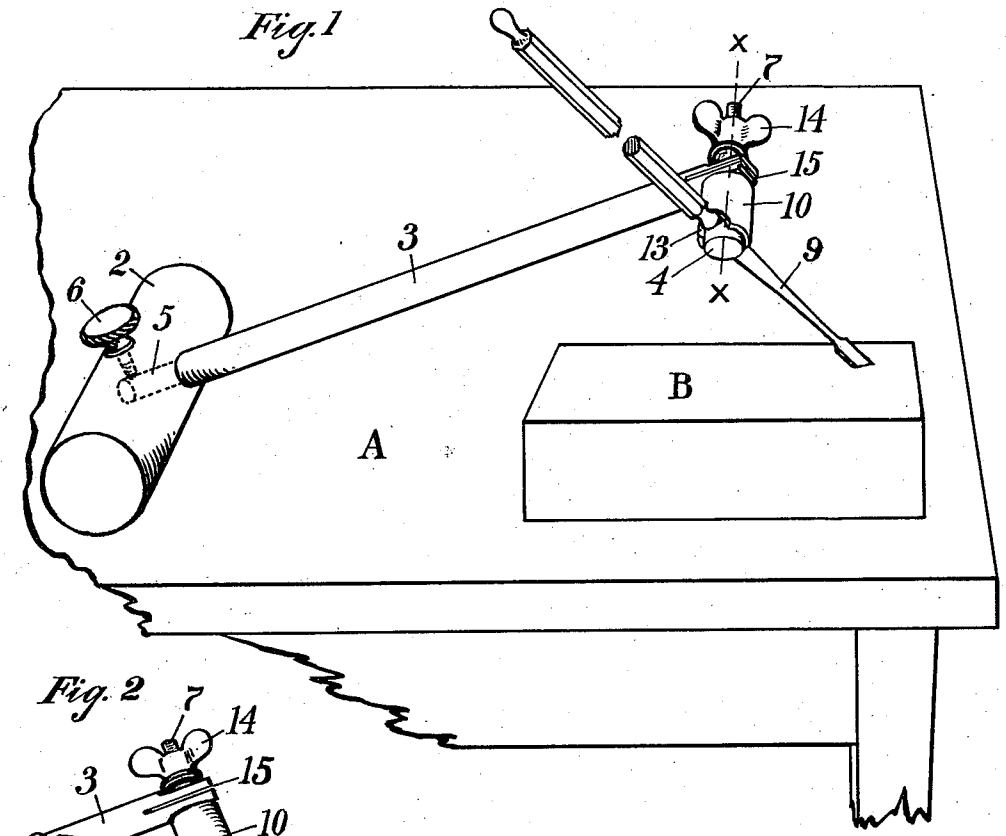
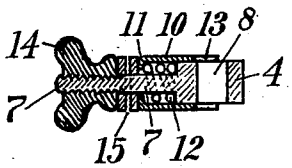


Fig. 2

Fig. 3.



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UNITED STATES PATENT OFFICE.

CHARLES W. JONES, OF ST. PAUL, MINNESOTA.

INSTRUMENT-HOLDER.

1,014,649. Specification of Letters Patent. Patented Jan. 16, 1912.

Application filed July 24, 1906. Serial No. 327,587.

To all whom it may concern:

Be it known that I, CHARLES W. JONES, a citizen of the United States, residing at St. Paul, in the county of Ramsey and State of Minnesota, have invented certain new and useful Improvements in Instrument-Holders, of which the following is a specification.

My invention relates to improvements in instrument holders designed for use in sharpening dental instruments, engravers' tools, and other instruments of delicate nature.

The object of the invention is to provide a holder which will hold the instrument in adjusted positions, and which may be manipulated by hand without danger of tilting the instruments or changing their angle with reference to the sharpening stone.

To this end the invention consists in the features of construction, combination and arrangement of parts hereinafter described and claimed.

In the accompanying drawings forming part of this specification, Figure 1 is a perspective view of the improved instrument holder in position for use upon a sharpening stone and table, the table being partly broken away; Fig. 2 is a perspective view of the head of the holder adjusted at a different angle, the holder and stone being partly broken away; Fig. 3 is a longitudinal section through the head of the holder on line x—x of Fig. 1.

In the drawings A represents a table, upon which is a sharpening stone B. The holder comprises a weighted base 2 consisting of a nonrevoluble block, preferably cylindrical or having a cylindrical shaped bottom, as shown in the drawings, and adapted to be moved slidingly in any direction upon a supporting surface, a long shank or handle 3 extending at right angles with the axis of the base, and a rotatable head 4. The shank 3 is rotatably secured to the block at a point between the ends thereof as shown in Fig. 1, where the end of the shank is loosely and revolubly fitted into a socket 5 in the base. It may be secured in any adjusted position by means of a set screw 6. The holding head 4 is rotatably supported upon the shank at or near the outer end thereof. It has a rearwardly extending shaft or spindle 7, of reduced diameter, and is formed with a transverse hole 8 to receive an instrument 9. Over it is loosely and slidably fitted a sleeve 10 having a cupped inner end 11 turned in to fit about the shaft 7. Interposed between the head and the cupped end of the sleeve is a coiled spring 12 to hold the sleeve normally pressed back as shown in Fig. 4, so as to expose the hole 8 in the head and facilitate the insertion of a tool. The sleeve is formed with a pair of oppositely disposed peripheral notches 13 in its outer edge, preferably V-shaped to conform to instrument handles of different sizes.

In the embodiment of the invention shown in Fig. 1 the head is revolubly mounted upon the shank 3 by journaling the shaft 7 in a hole passing through the shank. Threaded upon the outer end of the shaft is a thumb-nut 14. The end of the shank is preferably split or formed with a slot 15 so as to form a resilient cushion for the thumb-nut and sleeve 11.

It will be seen that the shank is rotatable on its own axis in one plane, while the head is rotatable on the axis of the shaft 7 in a plane at right angles thereto. Thus by turning the shank or the head, or both, the instrument may be adjusted to any desired position and at any desired angle.

In practice the instrument is first inserted into the hole 8, and adjusted to the desired forward or backward inclination by turning the head 4. The thumb-nut is then tightened to draw the head back within the sleeve 10, so that the instrument will be clamped tightly between the notched edge of the sleeve and the side of the hole 8. The shank 3 is then turned in its socket in the base to give the instrument the desired side inclination and the set screw 6 tightened. When the instrument and holder are thus adjusted, with the base resting upon the table and the cutting end of the instrument upon the stone, the shank 3 is grasped between the thumb and fingers of the operator, and the holder moved back and forth or in any direction necessary to draw the edge of the instrument over the stone in the desired way. The base, being weighted and extending transversely to the shank, will tend to keep the instrument upon the stone and prevent its being tilted sidewise. Its cylindrical shaped bottom will assist in this, and will permit the holding head to be raised to any desired height without altering the bearing surface upon the table.

I claim as my invention:

An instrument holder of the class described comprising a weighted base consisting of a non-revoluble block adapted to be moved slidingly in any desired direction upon a supporting surface, a shank adjustably secured directly to the block at a point between the ends thereof, and a tool holding head revolubly mounted upon the shank at the free end thereof, the head and shank being revolubly adjustable in planes transverse to each other.

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

CHARLES W. JONES.

Witnesses:

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