

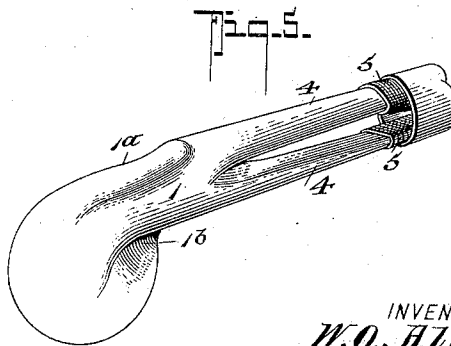
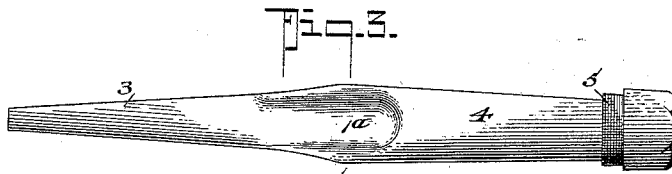
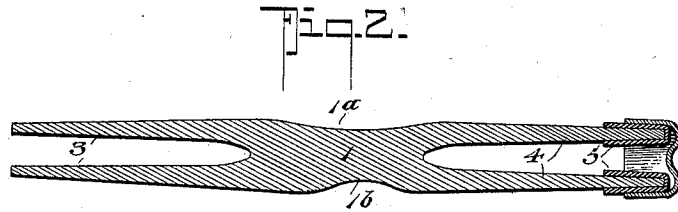
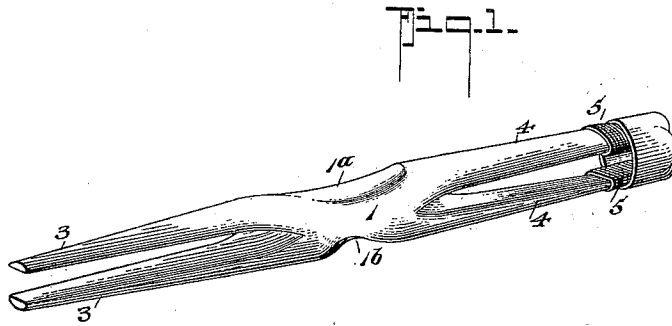
No. 624,722.

Patented May 9, 1899.

W. O. ALLEN.
TOOTH CROWN HOLDER.

(Application filed Feb. 9, 1899.)

(No Model.)



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UNITED STATES PATENT OFFICE.

WILLIAM O. ALLEN, OF BILLINGS, MONTANA.

TOOTH-CROWN HOLDER.

SPECIFICATION forming part of Letters Patent No. 624,722, dated May 9, 1899.

Application filed February 9, 1899. Serial No. 705,086. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM O. ALLEN, residing at Billings, in the county of Yellowstone and State of Montana, have invented a new and Improved Tooth-Crown Holder, of which the following is a specification.

This invention is in the nature of a simple, economic, and effective device for holding tooth-crowns and other similar articles while filing and polishing; and the said invention comprehends a device of this character consisting of a single piece of spring-steel having a central body or gripping portion and opposite bifurcated ends terminating in spring-fingers tapered so as to readily spring together to fit within a crown-piece on tangs, the fingers on one end being of different size from the other, whereby the implement can be used for different sizes of crown-pieces.

My improvement also embodies a holder having a body portion and integral spring-fingers having their ends equipped with detachable members of a yielding or elastic character, the purpose of which will hereinafter appear in the detailed description and the appended claims.

In the accompanying drawings, Figure 1 is a view illustrating my device as in use. Fig. 2 is a longitudinal section thereof. Fig. 3 is a plan view of the same. Fig. 4 is a cross-section. Fig. 5 illustrates a modified form of my improved device having but a single set of spring-fingers. Fig. 6 illustrates a further modified form of my invention.

In dentistry it is common to hold crowns or like articles to be polished or filed on a suitable stick-piece by nippers or between fixedly-held clamp devices. Such methods of holding crown-pieces do not effect a simple, quick, and efficient way for manipulating the said crown-pieces, for the reason that in case a stick or plug member is used the same must be shaped to fit the particular crown-piece to which it is held, and when nippers or clamps are employed they tend to bend the crown-piece out of shape and also prevent free access to all of its exterior surface.

I am aware that a device has been provided comprising a suitable handle having a shank-piece from which a series of divergingly-extending spring-rod fingers project which are capable of being closed in under spring ten-

sion by slidable collar-pieces; but such form of crown-holder does not produce all the results desired, for the reason that it requires too much manipulation of the hand holding the tool for properly setting it to fit the crown and frequently on account of the sliding or compressed collar requiring two hands to satisfactorily adjust it, a further objection to such form of device being the expense of making the same and the ease with which the spring-fingers will become bent and sometimes broken.

In the practical construction of my improvement the device is made of a body formed of spring-steel, the central portion 1 of which has one face 1^a concaved lengthwise to conveniently receive the thumb of the hand and its opposite face 1^b formed with a spiral-like concavity to form a seat for one of the fingers which closes over said concavity, giving ample purchase for the fingers to properly close on the body portion, and thereby keep the holder from slipping in the hand, said holder in practice being highly polished or nickled.

In its preferred construction my improved holder has the body portion terminating at each end in spring-fingers 3 4 of different sizes whereby to engage with larger or smaller crowns of the usual cup-shaped shield-pieces. The flat or outer edges of the fingers are in the same longitudinal plane with the concaved faces of the body, whereby they may be readily compressed when desired by simply moving the thumb and index-finger forward sufficiently to admit of easily pressing the spring-fingers together sufficient to enter the crown or admit of the free removal thereof.

While in its broadest nature my invention need have but one set of spring-fingers, as shown in Fig. 5, yet I prefer to form the same with two sets of fingers, as shown in the other views, as the set of fingers not in use forms a complete handle portion whereby to hold the implement steady when not used without unnecessarily cramping the hand.

To the more securely hold the crown or shield, I provide yielding shield members 5, adapted to be detachably slipped onto the extreme ends of the spring-fingers, and such members 5 are preferably made of rubber, as by reason of their elasticity they will firmly

hold on the said ends. The yielding surface of the ends of the spring-fingers also serves another purpose, in that it allows for polishing or filing the crown without danger of bending the same out of shape, which might occur were the crown fitted directly against the solid piece of the fingers.

When the device has but one set of fingers, the body portion is extended to form a bulbular shape, as at 6, whereby to fit the ball of the hand and admit of the device being more securely held.

My device, it will be observed, can be readily manipulated by one hand, and when the crown is once placed in position the same will remain thereon no matter whether the holder is knocked about or laid down, as the spring tension of the fingers and the cushion grip exerted on the crown will hold the same in place until it is pulled off by force.

To reduce the cost and facilitate its manufacture, the implement may be constructed of two pieces of spring metal, as shown in Fig. 6. In this form the inner ends of the

finger portions 4 bend toward each other, as at 4^a, and form a solid body or grip, the portions 4^b serving as guides whereby the thumb and fingers can the more firmly grasp the implement.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. A tooth-crown holder, comprising a body portion having an integral forked projection terminating in resilient fingers, and elastic sheaths adapted to detachably fit on the ends of the said fingers, as specified.

2. As a new article, a tooth-crown holder, formed of a single piece of spring metal and having a central solid portion forming a handle, and bifurcated opposite ends terminating in spring-fingers, the solid portion having finger-receiving concavities, as specified.

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Witnesses:

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