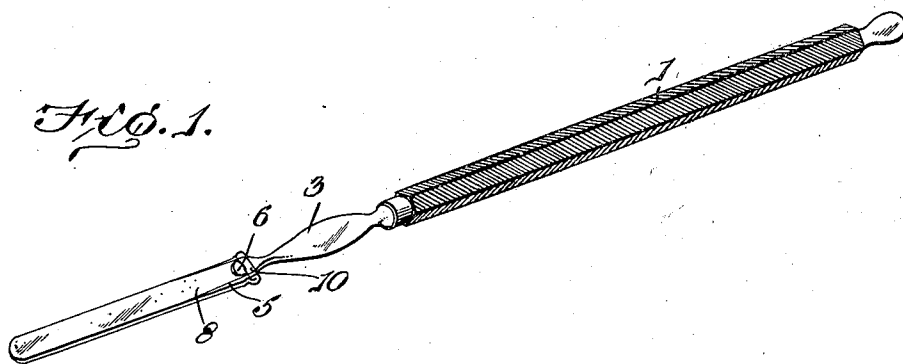
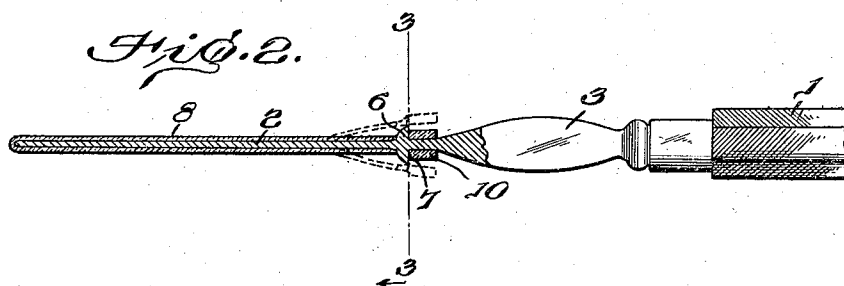
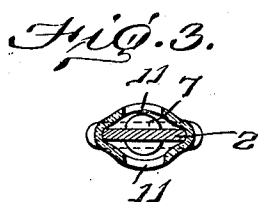
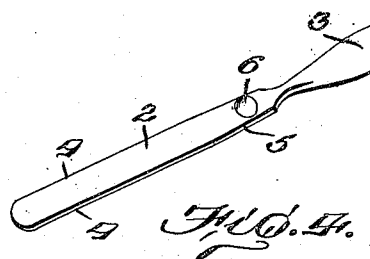
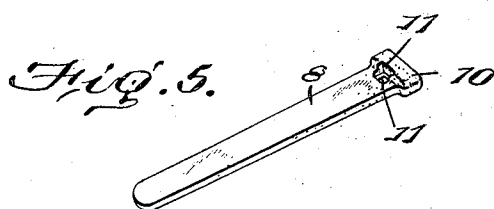


C. W. BENSON.
 PROTECTIVE COVER FOR THE BLADES OF SPATULAS, &c.
 APPLICATION FILED NOV. 27, 1915.

1,242,415.

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1,242,415.

Specification of Letters Patent.

Patented Oct. 9, 1917.

Application filed November 27, 1915. Serial No. 63,855.

To all whom it may concern:

Be it known that I, CHARLES W. BENSON, a citizen of the United States, residing at Duluth, in the county of St. Louis and State of Minnesota, have invented certain new and useful Improvements in Protective Covers for the Blades of Spatulas, &c., of which the following is a specification.

This invention relates to an improvement in instruments, such as spatulas used by dentists, druggists, and others employing similar instruments. The use of the ordinary spatula with a steel blade presents numerous disadvantages particularly where the instrument is employed by a dentist in the mixing of cement. The liquid constituent of dental cements ordinarily contains a certain percentage of phosphoric acid and when such cements are mixed with a steel spatula blade the blade is liable to become tarnished and frequently the cement is discolored. Furthermore, dental cements dry quickly and it is frequently found difficult to remove cement which has dried and caked upon the blade as the cement is insoluble in water and difficult to remove by scraping. The present invention, therefore, aims to provide a spatula the blade of which is protected by a cover or sheath which does not in any way interfere with the use of the spatula nor detract from the resiliency or flexibility of the blade and which cover or sheath will be of such material as not to be in any way affected by acids and may be so inexpensive as to permit of a new sheath being applied to the blade each time the spatula is used, thereby avoiding the necessity of cleaning the spatula blade after use and avoiding likelihood of discoloring of the cement due to contact of the same with a metal surface.

Another aim of the invention is to provide a novel means for securely holding the sheath in place upon the spatula blade so that in the use of the instrument the sheath will not be liable to become accidentally displaced or removed and which securing means will at the same time permit of ready removal of the sheath whenever desired. Incidentally the invention aims to so form the blade adjacent the shank as to permit of such ready removal of the sheath.

In the accompanying drawings,—

Figure 1 is a perspective view of a dental spatula equipped with the improvement embodying the present invention;

Fig. 2 is a detail longitudinal sectional view through the blade and sheath illustrating in full lines the normal condition of the sheath and in dotted lines the manner in which the walls of the sheath are to be moved apart so as to release the sheath for removal;

Fig. 3 is a vertical transverse sectional view on the line 3—3 of Fig. 2 illustrating the walls of the sheath in normal condition in dotted lines, and in spread apart condition in full lines;

Fig. 4 is a perspective view of the sheath removed;

Fig. 5 is a detail perspective view of a portion of the spatula blade.

In the accompanying drawings, the numeral 1 indicates in general the handle of the spatula and 2 the blade thereof, the blade except as hereinafter stated being of the ordinary form and resilient and flexible to the desired degree. The shank which connects the blade 2 with the handle 1 is indicated by the numeral 3 and by reference to the drawings it will be observed that the lateral edges 4 of the blade are parallel for substantially the entire length of the blade but that adjacent the point of juncture of the blade with the shank 3 these edges converge in the direction of the shank, as indicated by the numeral 5. At a suitable point and preferably immediately forwardly of the point of juncture of the inner end of the blade 2 with the shank 3, each side or face of the blade is formed with a protuberance 6 having an abrupt rearwardly presented face 7 constituting a locking shoulder, the purpose of which will be presently explained. The surface of the protuberance 6 aside from the abrupt face 7 thereof is convex and merges into the face of the blade upon which it is formed.

The blade sheath indicated in general by the numeral 8 is formed from any suitable material, such for example as celluloid and the said sheath is flat sided and of a marginal contour to conform to the marginal contour of the blade, the sheath being ar-

ranged to snugly fit the blade when the blade is inserted therein. In its initial form the walls of the sheath lie in contact or substantially in contact so that when the sheath
 5 is applied to the blade the said walls will lie snugly against the opposite faces of the blade. It is stated above that the sheath has a marginal contour corresponding to the marginal contour of the blade but this
 10 is not strictly true for the reason that the side edges of the sheath are parallel throughout the length of the sheath so that adjacent the open end or throat of the sheath, indicated at 9, the sheath is interiorly slightly wider than the blade between
 15 its edge portions 5. The object in view in thus proportioning the blade and sheath will be presently stated. At the throat 9 of the sheath the walls 8 are thickened or
 20 otherwise suitably reinforced, as indicated at 10, and immediately forwardly of the thickened portion each wall is formed with an opening 11. In preparing the spatula for use, the blade thereof is inserted in one
 25 of the sheaths and as the side walls of the sheath at the mouth 9 thereof reach the protuberances 6 and ride upwardly upon the convex faces of the protuberances the said walls will be spread apart until their
 30 reinforced portions 10 have passed over the protuberances whereupon the side walls of the sheath by their inherent resiliency will spring toward each other and the protuberances 6 will be received within the openings
 35 11, the walls of the said openings next adjacent the reinforcements 10 resting against the abrupt shoulders 7 and thereby serving to securely hold the sheath in place upon the blade.
 40 Inasmuch as the side edges of the sheath at the throat thereof extend in parallel relation to each other and are located opposite the converging edge portions 5 of the blade it will be understood that the said
 45 edges of the sheath may be pressed toward each other between the thumb and forefinger for the purpose of expanding the throat of the sheath or in other words spreading apart the side walls to move the
 50 walls to such position that they may clear

the locking shoulders 7 of the protuberances 6 as the blade is withdrawn or the sheath is removed.

Having thus described the invention, what is claimed as new is:

1. The combination with the blade of a spatula or the like, the said blade being provided with a shoulder, of a sheath for the said blade removably fitted thereto and flexible with the blade, and provided with
 60 means for coöperation with the shoulder for holding the sheath in place upon the blade.

2. The combination with the blade of a spatula or the like, the said blade being provided with a protuberance and the edges of the blade adjacent the protuberance being inwardly offset, of a sheath for the blade removably fitted thereto and flexible therewith and provided with an opening to receive the said protuberance, the sheath adjacent the said opening therein being interiorly of a width greater than the width of the blade adjacent the said protuberance.

3. In a device of the class described, a spatula or the like having a blade provided upon its opposite faces with protuberances each having an abrupt shoulder, and a sheath removably fitted to the blade and provided at its open end with a reinforcement and provided in its walls adjacent the reinforcement with openings to receive the said protuberances upon the blade.

4. In a device of the class described, a spatula or the like having a blade provided upon its opposite faces with protuberances each having an abrupt shoulder, and a sheath removably fitted to the blade and provided at its open end with a reinforcement and provided in its walls adjacent the reinforcement with openings to receive the said protuberances upon the blade, the edges of the said blade being inwardly offset adjacent the said protuberances and the said sheath adjacent its said open end being of greater width interiorly than the said blade.

In testimony whereof, I affix my signature.

CHARLES W. BENSON. [L. s.]