E. J. HUFF, Jr. & F. A. JOHNSTON.

CROWN POST.

APPLICATION FILED DEC. 15, 1914.

1,145,368. Patented July 6, 1915.

FIG. 1.

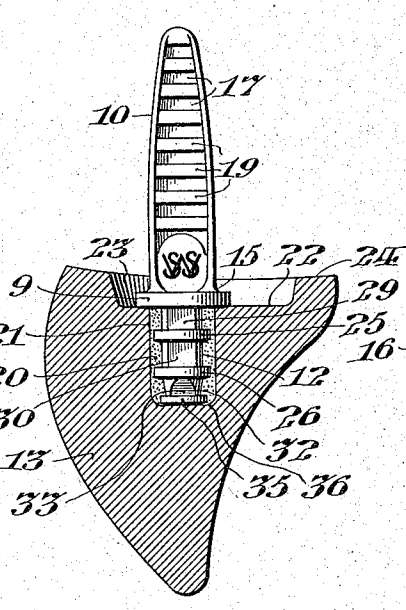


FIG. 3.

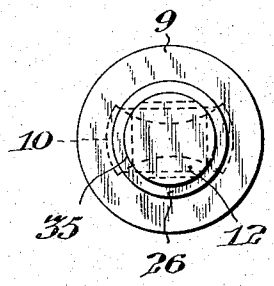


FIG. 4.

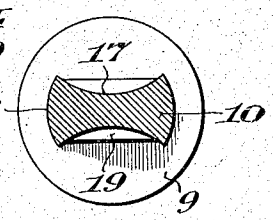


FIG. 2.

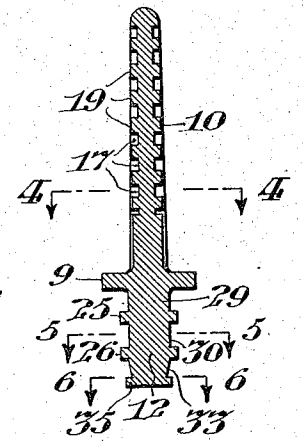


FIG. 5.

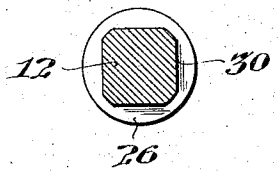


FIG. 6.

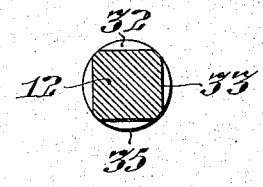
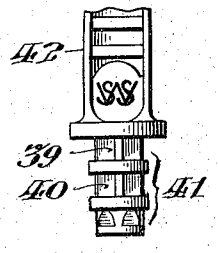


FIG. 7.



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UNITED STATES PATENT OFFICE.

EDMUND J. HUFF, JR., OF PHILADELPHIA, PENNSYLVANIA, AND FREDERICK A. JOHNSTON, OF ST. GEORGE, NEW YORK, ASSIGNORS TO THE S. S. WHITE DENTAL MANUFACTURING COMPANY, OF PHILADELPHIA, PENNSYLVANIA, A CORPORATION OF PENNSYLVANIA.

CROWN-POST.

1,145,368. Specification of Letters Patent. Patented July 6, 1915.

Application filed December 15, 1914. Serial No. 877,287.

To all whom it may concern:

Be it known that we, EDMUND J. HUFF, Jr., and FREDERICK A. JOHNSTON, citizens of the United States, and residents of Philadelphia, county of Philadelphia, State of Pennsylvania, and St. George, county of Richmond, State of New York, respectively, have invented certain new and useful Improvements in Crown-Posts, of which the following is a specification, reference being had to the accompanying drawings.

Our invention relates particularly to crown-posts for securing artificial tooth-crowns upon natural tooth roots, to replace tooth-crowns lost by breakage or decay, and is especially directed to that class of crown-posts which are sold separate or detached from the tooth-crown, and upon which the tooth-crown may be attached by cement.

The principal object of our invention is to provide a detached crown-post which combines simplicity and strength with ease of attachment to the tooth-crown.

Specifically stated, our invention comprehends a crown-post having a root shank widening into a flange forming a circular body, from which extends an oppositely disposed crown shank having spaced anchor flanges intermediate of the body flange and its free end, and having notches disposed adjacent to its free end to form a terminal anchor head of less diameter than said intermediate flanges.

Our invention also includes all of the various novel features of construction and arrangement hereinafter more definitely specified.

In the accompanying drawings, Figure 1 is a side elevational view of a crown-post constructed in accordance with our invention, having its crown shank embedded in a tooth-crown which is shown in section for convenience of illustration; Fig. 2 is a central vertical longitudinal sectional view of the crown-post *per se*, taken transversely; Fig. 3 is an inverted plan view of the crown-pot shown in Figs. 1 and 2; Fig. 4 is a horizontal transverse sectional view taken on the line 4—4 in Fig. 2; Fig. 5 is a horizontal transverse sectional view taken on the line 5—5 in Fig. 2; Fig. 6 is a horizontal transverse sectional view taken on the line 6—6 in Fig. 2; and Fig. 7 is a fragmentary side elevational view of a modified form of the crown-post shown in Fig. 1.

In said figures, the crown-post comprises the flange or body 9, from which projects, preferably in axial alinement, the oppositely directed root shank 10 and the crown shank 12, respectively engageable with the natural tooth root (not shown) and the artificial tooth-crown 13.

The root shank 10 is in the form of a flattened tapered pin joined with the body flange 9 by fillets 15, having its edges 16 rounded, as best shown in Fig. 4, and having its sides provided with a series of transversely disposed curved or dished grooves 17 forming the intermediate ribs 19.

The crown shank 12 is arranged to be embedded in the cement 20 contained in the socket 21, which is provided therefor in the tooth-crown 13 and which extends inwardly from the bottom 22 of the recess 23 in the base 24 of said tooth-crown. The crown shank 12 is provided with anchor flanges 25 and 26 disposed in spaced relation from each other and from its free end and the body flange 9, and has flattened surfaces 29 and 30 respectively extending parallel with the axis of the shank between the body flange 9 and anchor flange 25, and between the anchor flanges 25 and 26. Said crown shank 12 is also provided with notches 32 adjacent to its free end, forming flat surfaces 33 extending obliquely inward toward said free end and providing an overhanging terminal head 35 of less diameter than the anchor flanges 25 and 26, and affording additional anchorage at the extreme end of said crown shank. It will be obvious that by thus forming the terminal anchorage head 35 the crown shank 12 may be fitted in the socket 21 in the tooth-crown, and may extend to the bottom thereof, or in very closely adjacent relation thereto, without in any way interfering with the fillets 36 which are necessarily formed therein in the manufacture of such artificial teeth, and therefore such construction of the crown shank 12 is advantageous, not only that the crown-post may be attached to the tooth-crown without grinding out the socket 21, but less care is required to reduce the fillet 36 in the manufacture of such teeth.

Although, as shown in Figs. 1 to 6, inclu-

sive, the flat surfaces 29 and 30 of the crown-post extend in planes parallel with, or in planes normal to, the plane of the root shank 10, it is to be understood that said flat surfaces may be otherwise disposed, for instance, as shown in Fig. 7, wherein the flat surfaces 39 and 40 of the root shank 41 are disposed in oblique relation to the plane of the crown shank 42.

We do not desire to limit our invention to the precise details of construction and arrangement herein set forth, as it is obvious that various modifications may be made therein without departing from the essential features of the invention as defined in the appended claims.

Having thus described our invention, we claim:

1. A crown-post comprising a body flange, a root-shank and a crown-shank having anchor flanges spaced intermediate of its free end and said body flange, and having undercut surfaces adjacent to its free end forming a head of less diameter than said anchor flanges, and providing retaining shoulders.

2. A crown-post comprising a body flange, a root shank, and a crown shank having anchor flanges spaced intermediate of its free end and said body flange, and having oppositely disposed relatively angular undercut surfaces adjacent to its free end forming a head of less diameter than said anchor flanges, and providing retaining shoulders.

In testimony whereof, we have respectively hereunto signed our names the 10th day of December, A. D., 1914, and the 11th day of December, A. D., 1914.

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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."