

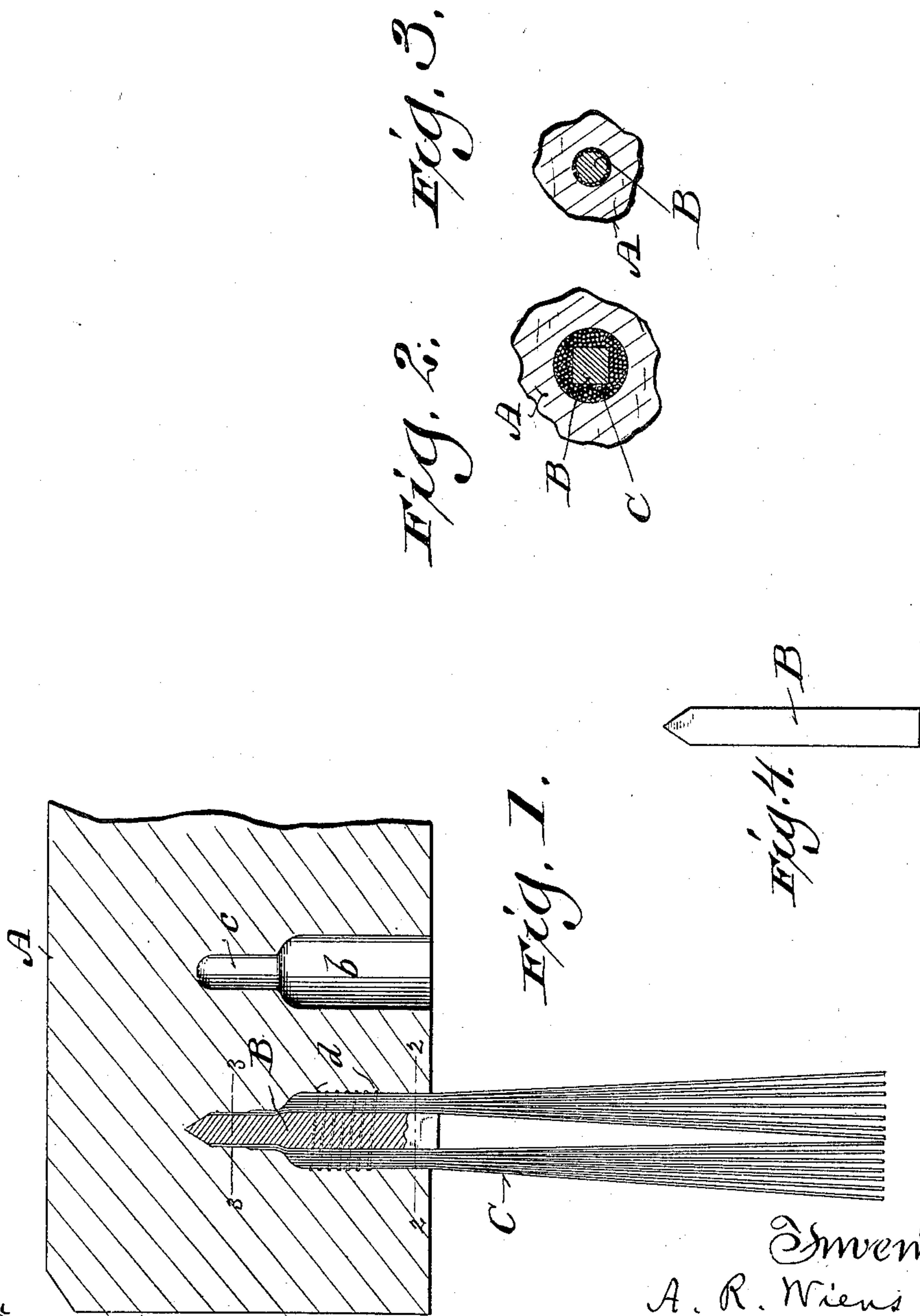
No. 697,763.

Patented Apr. 15, 1902.

A. R. WIENS.
BRUSH.

(Application filed Jan. 15, 1900.)

(No Model.)



Witnesses:
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UNITED STATES PATENT OFFICE.

ADOLPH R. WIENS, OF MILWAUKEE, WISCONSIN.

BRUSH.

SPECIFICATION forming part of Letters Patent No. 697,763, dated April 15, 1902.

Application filed January 15, 1900. Serial No. 1,471. (No model.)

To all whom it may concern:

Be it known that I, ADOLPH R. WIENS, a citizen of the United States, and a resident of Milwaukee, in the county of Milwaukee and State of Wisconsin, have invented certain new and useful Improvements in Brushes; and I do hereby declare that the following is a full, clear, and exact description thereof.

My invention has for its main object to provide simple economical one-piece multiple-tuft wood-back brushes proof against loss of tufts when subjected to conditions that cause shrink of the back material, said invention consisting in certain peculiarities of construction and combination of parts, hereinafter particularly set forth with reference to the accompanying drawings and subsequently claimed.

Figure 1 of the drawings represents a sectional view of a portion of a one-piece multiple-tuft wood-back brush and illustrates my improvements; Figs. 2 and 3, horizontal sections, respectively, indicated by lines 2 2 and 3 3 in the first figure; and Fig. 4, an elevation of a tuft-securing plug constituting part of a finished brush.

Referring by letter to the drawings, A indicates a one-piece wood brush-back and concentric with each tuft-socket *b* therein is an upwardly-extending recess *c* of less diameter than that of said socket, this recess being for the reception of a preferably wooden plug B, driven through the butt of a tuft C, constituting part of the brush.

In the manufacture of the brush the material, preferably bristles, for each tuft is bunched and wrapped at one end with fine cord *d*, after which it is dipped in a cement made to harden under pressure and then set in a back-socket, this being common practice in the art of brush-making. The tuft is made to have snug fit in the socket, and being positioned a plug B is driven through its butt into the recess *c*, that extends upward from said socket concentric thereto, the plug

being preferably an ordinary shoe-peg having a greater diameter than said recess. The plug not only compresses the tuft-butt in its socket, but it also carries some of the tuft material and cement into the recess extending from said socket to thereby anchor the tuft in the brush-back, it being understood that whether said plug be wood or metal, compressible or otherwise, there is a bind of said tuft material and cement in said recess to prevent said tuft from falling out when there is shrinkage of the brush-back.

Excellent results are obtained by the utilization of shoe-pegs as tuft-securing plugs, and by having the diameter of the pegs greater than that of the recesses *c* in the brush-back there is considerable compression of said pegs with the tuft material and cement in said recess. The shoe-pegs are also preferable as a matter of economy, they being a cheap commodity well suited to my purpose.

The points of any kind of plugs being harder than the material in the brush-back they will penetrate into the same, as herein shown, but otherwise they will be blunted by contact with said material.

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

A multiple-tuft brush having a one-piece wood back provided with a recess back of each tuft-socket in communication therewith but of less diameter than the same, and a plug driven through the tuft-butt in each socket with some of the tuft material and its binding-cement into the adjacent recess.

In testimony that I claim the foregoing I have hereunto set my hand, at Milwaukee, in the county of Milwaukee and State of Wisconsin, in the presence of two witnesses.

ADOLPH R. WIENS.

Witnesses:

N. E. OLIPHANT,
B. C. ROLOFF.