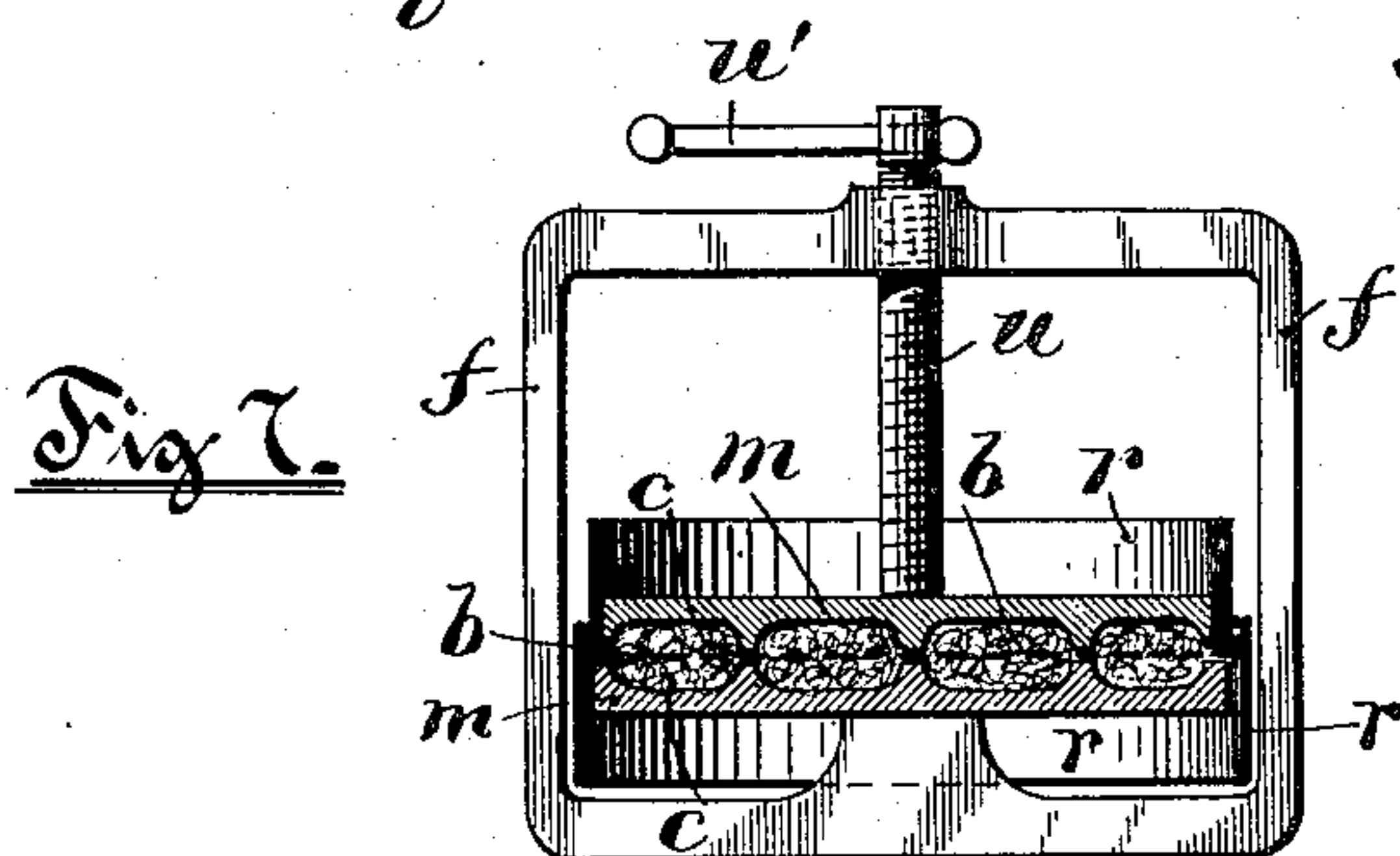
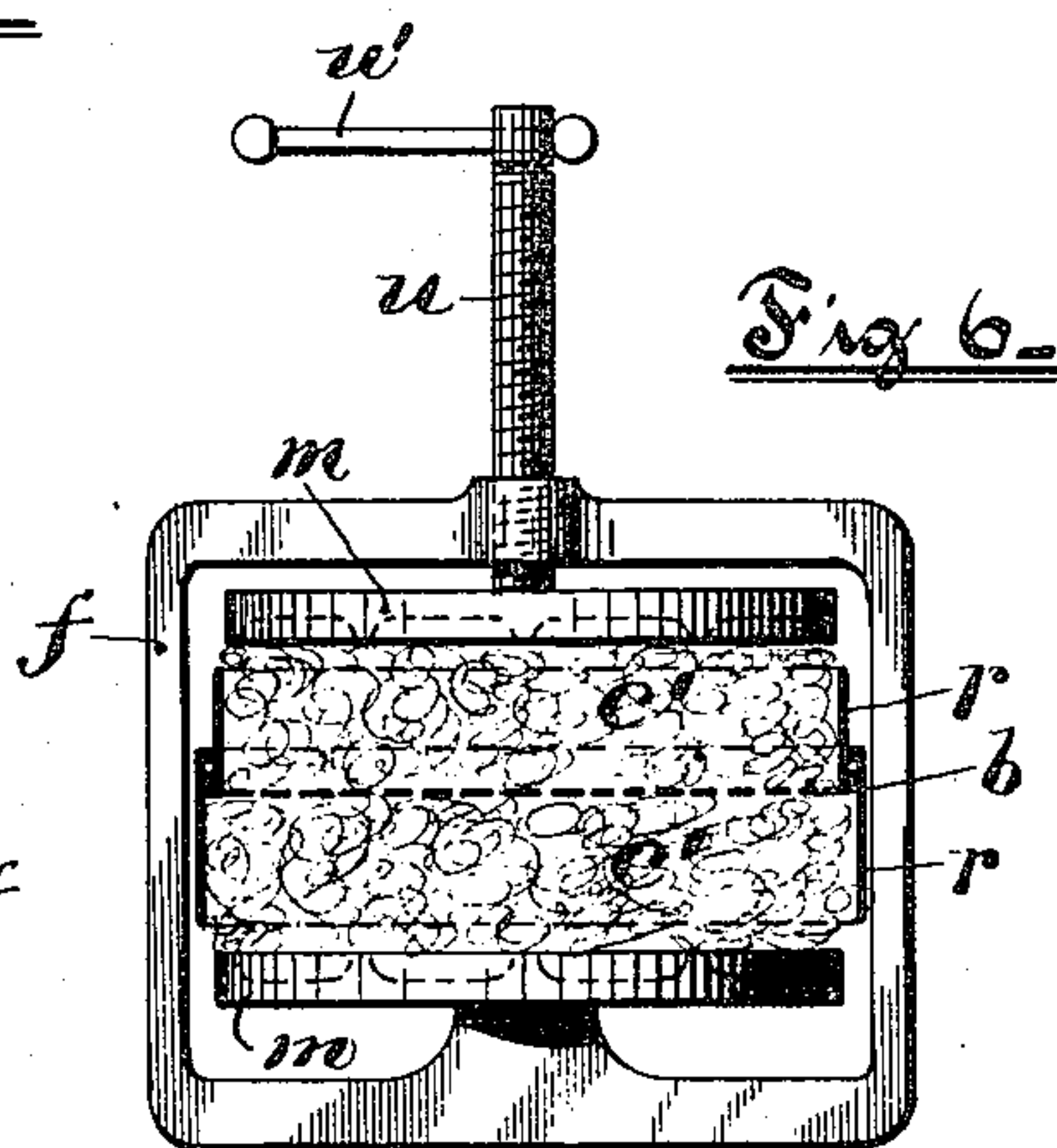
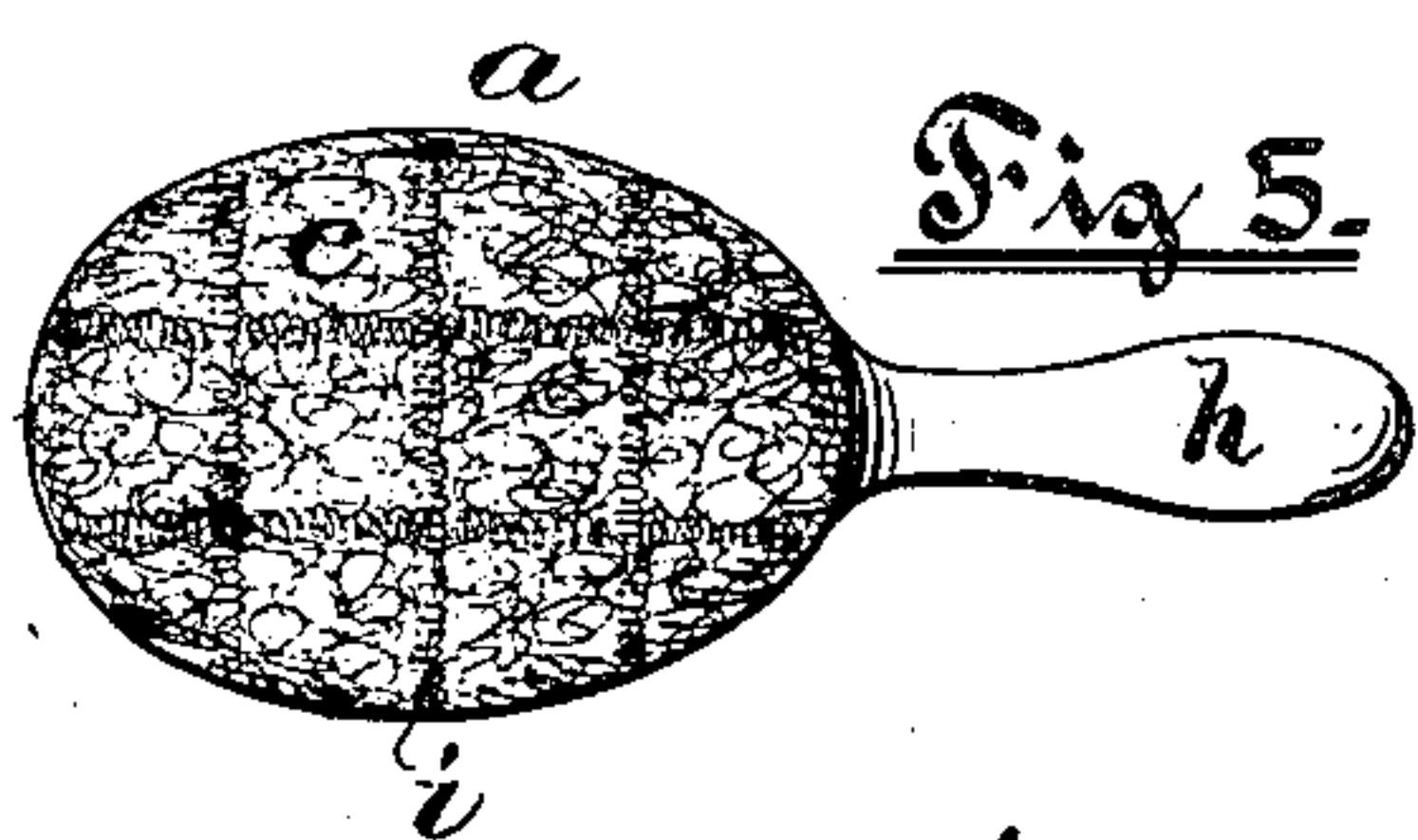
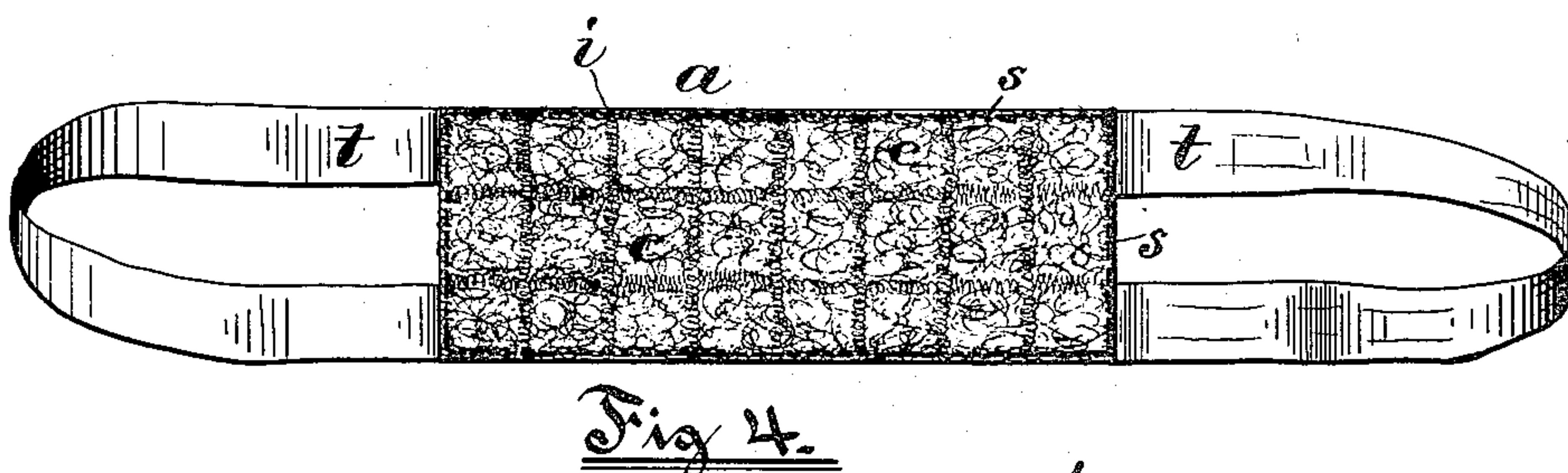
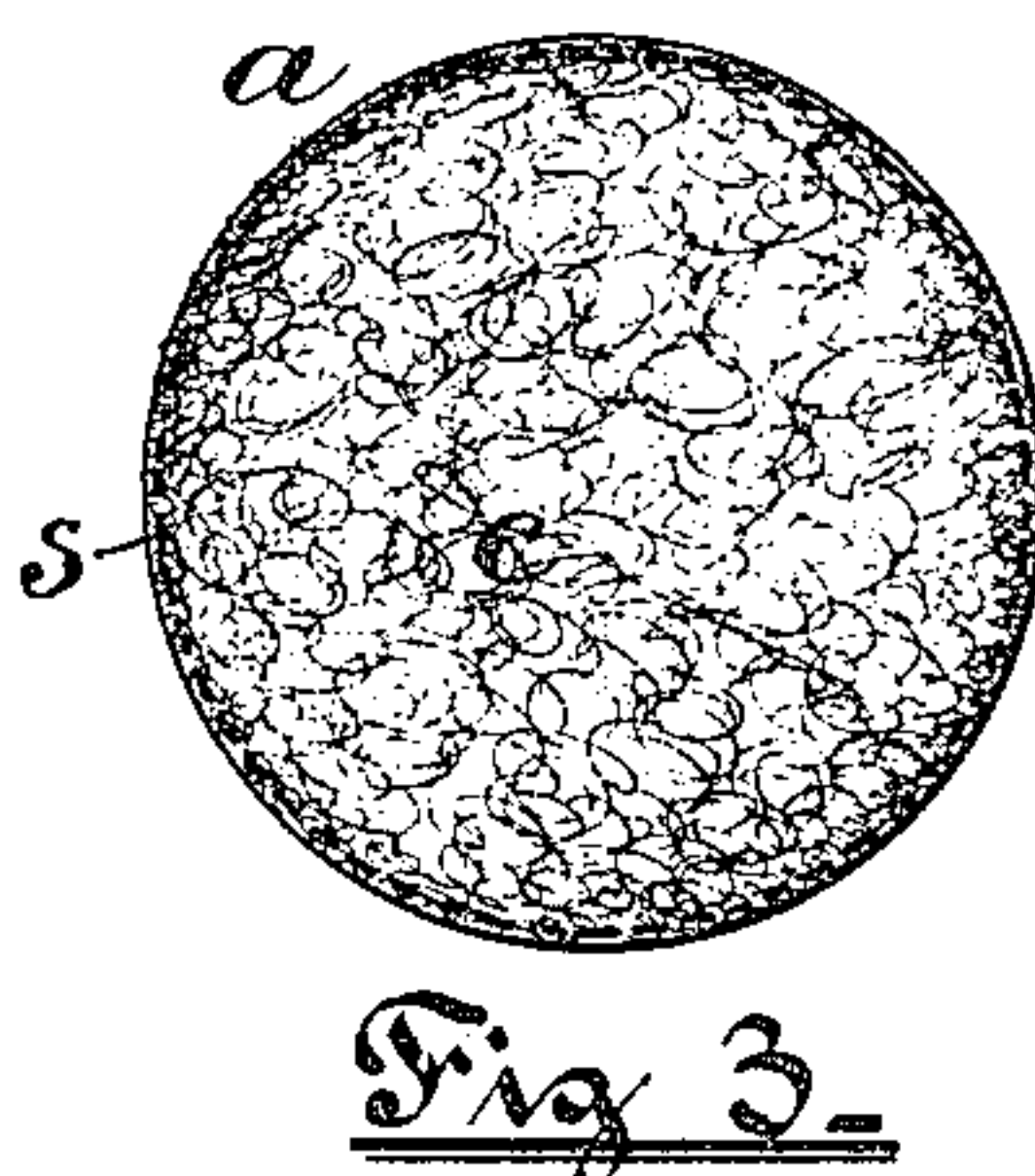
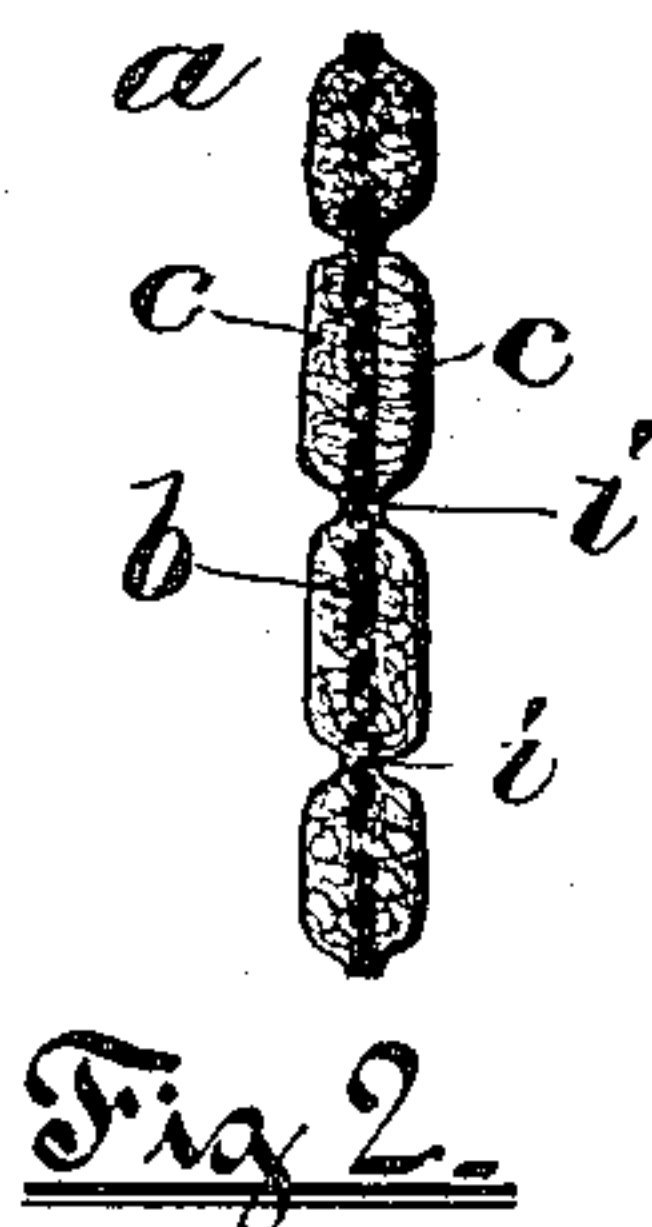
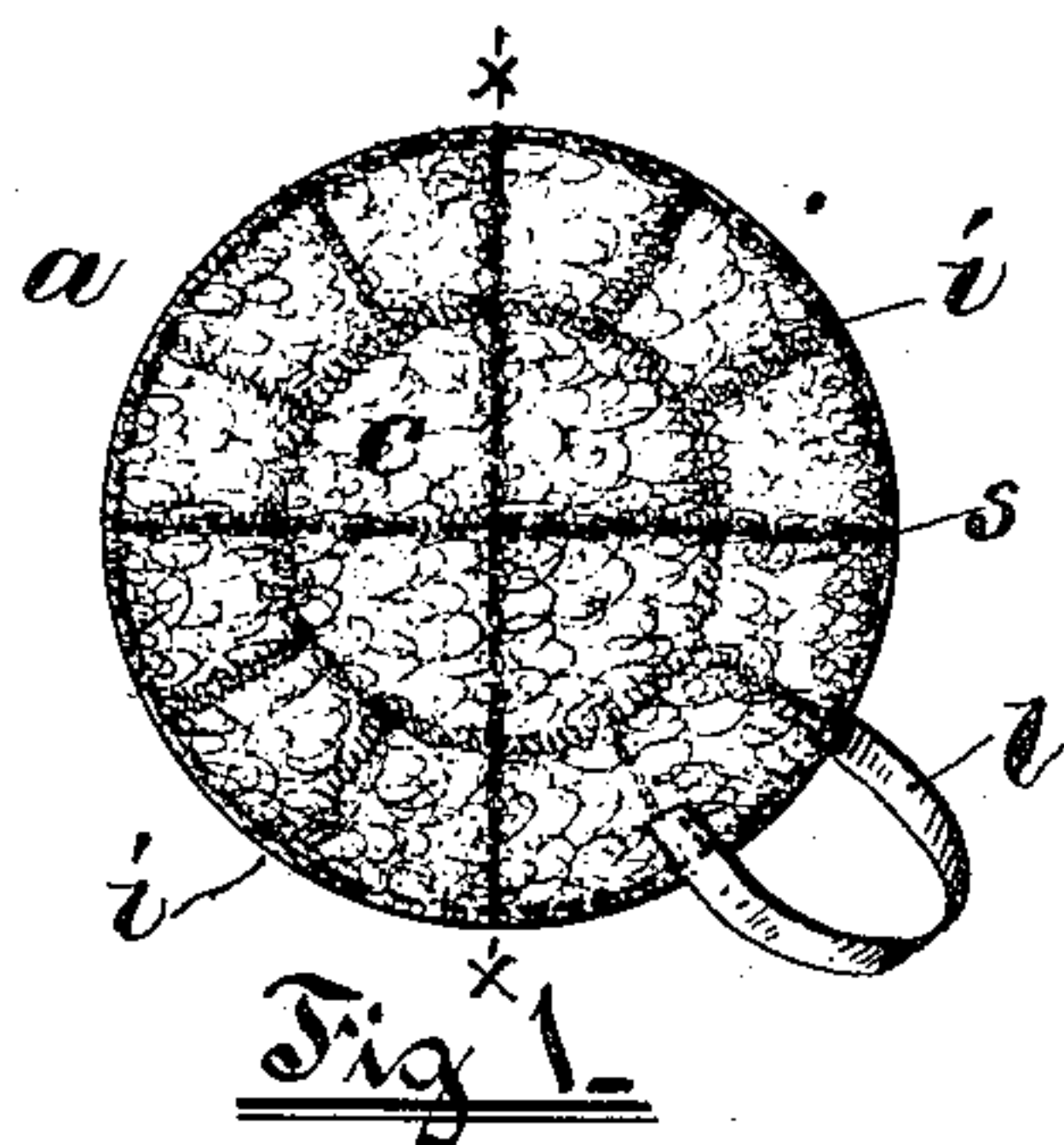


(No Model.)

W. Y. A. BOARDMAN.
FLESH BRUSH.

No. 506,869.

Patented Oct. 17, 1893.



Witnesses.

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UNITED STATES PATENT OFFICE.

WILLIAM Y. A. BOARDMAN, OF HYDE PARK, MASSACHUSETTS.

FLESH-BRUSH.

SPECIFICATION forming part of Letters Patent No. 506,869, dated October 17, 1893.

Application filed April 24, 1893. Serial No. 471,624. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM Y. A. BOARDMAN, a citizen of the United States, residing at Hyde Park, in the county of Norfolk and State of Massachusetts, have invented certain new and useful Improvements in Flesh-Brushes; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

My invention relates to improvements in brushes, such for example as are more especially adapted to be employed in the bath or toilet room.

It is of course well known that bristle flesh-brushes have long been used in the class just referred to; so also have brushes made of rubber, fine wire, sponge, &c., been employed. While such former flesh-brushes possess advantages in a greater or less degree, I have found that curled hair, so called, when properly treated and mounted forms a superior material for the various uses to which flesh-brushes are commonly put. It is soft and yielding to the touch and presents no sharp and irritating points; it is somewhat absorbent or spongy; its surface when wet is continually undergoing a change while in use, due to the manipulation of the user, thereby changing the relative positions of the individual hairs or fibers; it is easily and quickly cleansed and dried, and its cost is comparatively inexpensive.

In carrying out my invention I take a suitable quantity or mass of the material, curled hair, in a wet or moist state, and place it, approximately flat and fluffy in a suitable mold where it is both pressed and dried. The treated material is next secured by cement or otherwise to an inelastic backing having any desired form, the brush then being ready for use.

I prefer to make what may be termed a double brush, that is a brush having both of its sides or faces composed of curled hair molded so as to present say a series of corrugations; said sides being secured back to back by cement or stitching to an interposed

backing of rubber-coated canvas or other material which may be flexible though not elastic to a great extent. In some cases the brush may be further provided with end loops or straps of tape or webbing, thereby adapting it to be used in a manner analogous to that wherein flesh-brushes are employed.

In the accompanying sheet of drawings, Figure 1 represents a flexible flesh-brush embodying my improvement. Fig. 2 is a transverse sectional view, taken on line *x x* of Fig. 1. Fig. 3 is a side elevation of the brush, showing a plain or non-corrugated molded surface. Fig. 4 represents the flexible brush provided with looped ends. Fig. 5 shows my improved brush provided with a rigid back. Fig. 6 is a partial vertical central sectional view of the mold, &c., showing a device for simultaneously shaping a double-faced brush, and Fig. 7 is a similar view, showing the material compressed and confined in the mold, preparatory to being removed therefrom and mounted.

In the drawings *a* indicates my improved flesh-brush complete having any suitable form; its rubbing surfaces *c* being composed of curled hair molded and shaped under pressure. As a rule I prefer to provide the brush with a double face, the whole being yielding or flexible, although in some cases the material or curled hair portion may be secured to a wooden or inelastic back *b*, as indicated in Fig. 5.

The curled hair is shaped and pressed while confined in a mold and subjected to the action of hot water for a suitable period, after which it is dried and removed from the mold; the thus treated piece *c* is then secured to a suitable backing adapted to reinforce the material. In some cases the rear face of the part *c* may be smeared with an insoluble or waterproof cement and affixed to the backing *b*, the latter being say rubber-coated canvas, webbing, coarse cloth or other suitable flexible substance. In order to more effectually insure that the curled hair portion *c* will not become distorted in use I further secure it to the backing *b* by stitching, as indicated at *s*.

As before stated, I prefer to make a double-face brush, that is a brush having both surfaces *c* composed of suitably molded curled hair. Fig. 2 represents a cross-sectional view

of such a brush. A device for making the latter is represented in Figs. 6 and 7, wherein *f* indicates the mold-frame provided with upper and lower molds *m m* adapted to be brought together, face to face, by means of a vise-screw *u*. Between the sides of the frame *f* are placed a pair of overlapping band hoops *r, r*, larger than the mold. In order to use the device the backing or reinforcing portion *b*, first smeared on both sides with water-proof or rubber cement, is stretched across the lower face of the upper hoop and pressed into the lower one, thus holding the backing in place, after which a mass of curled hair or material *c'* in its normal condition is placed in each hoop-chamber, as shown in Fig. 6, followed by bringing the two molds *m* snugly together by means of screw *u*, thus pressing or compressing the material, as represented in Fig. 7. The whole is next subjected to a suitable degree of heat, or boiled in water, which operates to harden or vulcanize the rubber and at the same time "sets" the facing material, after which the mold is opened and the compressed material *c* removed therefrom and dried, its shape then being the counterpart of the mold. It may be subsequently stitched if desired, after which the thus completed double face brush is ready for sale and use. The improved brush may be provided with a loop *l*, as in Fig. 1, or with an elongated double loop *t*, as in Fig. 4.

I would state that the curled hair or material in its normal or unpressed condition is indicated by *c'*, as in Fig. 6; *c* indicating the compacted hair pressed or molded to form. In some cases I prefer to corrugate the working face of the brush by forming a series of grooves or depressions *i* therein, as shown in Figs. 1, 2, 4 and 5; the said grooves may be arranged to cross each other, and if desired lines of stitching may be run along some of the grooves, as shown in Fig. 1. The said loops *l* and *t* serve as handles by means of which the brush may be more readily manipulated; the brush when not in use may be suspended from a convenient nail by means of the loop.

While I have shown and described certain forms and arrangements of curled hair brushes and a manner of manufacturing the same, I do not limit my invention to the precise form and method thus represented and set forth. That is to say the shape or contour of the brush faces may be varied, and provided with raised portions or corrugations, or if desired

it may be substantially smooth and flat; the curled hair may be treated in various ways and the order of the steps changed; the hair used may be uncolored or colored, or a combination of colors; and the brush may be made of hair varying in quality and compactness, without departing from the spirit of the invention.

In lieu of curled hair other material, as for example, excelsior, &c., may be employed, although it is not so durable nor does it possess all the other qualities of the former.

For certain uses to which my improved scrubbing or rubbing brush may be put the face portion may be composed of curled hair combined with excelsior, sea moss or other analogous material.

I claim as my invention, and desire to secure by United States Letters Patent—

1. The combination of a mass of suitably pressed and molded curled hair and a flexible backing having said hair secured thereto, substantially as hereinbefore described and for the purpose set forth.

2. The flesh-brush hereinbefore described, having its obverse and reverse sides composed of suitably treated curled hair, and having an interposed backing to which said curled hair is secured, substantially as set forth.

3. The improvement hereinbefore described in the manufacture of brushes, the same consisting in molding a mass of curled hair or analogous material in a wet state; drying said material while confined in the mold, then removing it from the mold and securing it to a base or backing.

4. The improvement hereinbefore described in the manufacture of brushes, the same consisting in first, supporting and smearing the flexible backing portion with a suitable cementing substance or material, as rubber, then loosely placing a mass of curled hair upon each side of the backing, then simultaneously compressing and molding the hair, then boiling the whole thereby at the same time hardening the cement and setting the hair to the shape of the mold, next, removing the thus treated material from the mold and drying it, and finally mounting it for use.

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

WILLIAM Y. A. BOARDMAN.

Witnesses:

GEO. H. REMINGTON,
IDA M. WARREN.