

T. COGSWELL.

COTTON-HOLDERS FOR DENTAL USE.

No. 186,307.

Patented Jan. 16, 1877.

Fig 1.

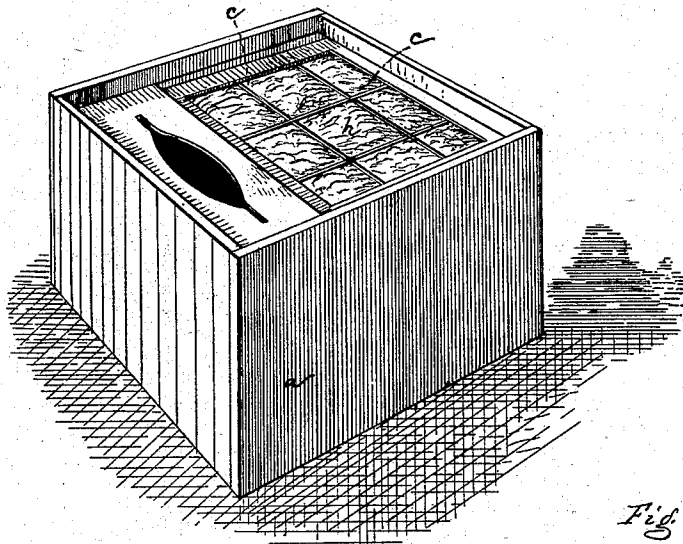


Fig 4.



Fig 2.

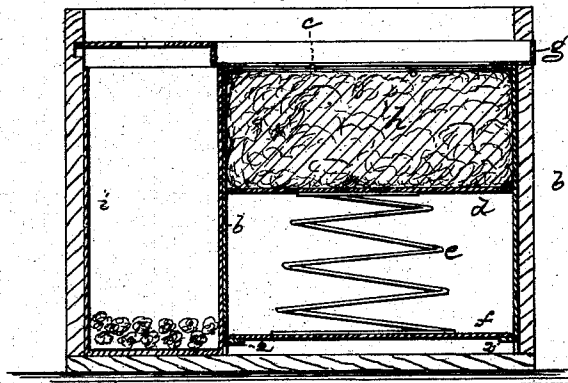


Fig 5.

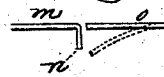
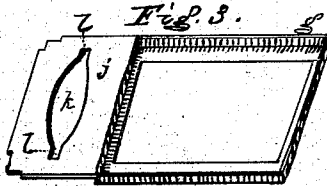


Fig 3.



Witnesses.

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UNITED STATES PATENT OFFICE.

THOMAS COGSWELL, OF BOSTON, MASSACHUSETTS, ASSIGNOR TO CODMAN & SHURTLEFF, OF SAME PLACE.

IMPROVEMENT IN COTTON-HOLDERS FOR DENTAL USE.

Specification forming part of Letters Patent No. **186,307**, dated January 16, 1877; application filed August 26, 1876.

To all whom it may concern:

Be it known that I, THOMAS COGSWELL, of Boston, in the county of Suffolk and State of Massachusetts, have invented an Improved Cotton or Fiber Holder and Detacher for Dentists' Use, of which the following is a specification:

This invention relates to a device for holding cotton or other fiber for dental use, and for detaching it from the excavators, pliers, or other tools after being used.

When filling teeth and performing other operations in the mouth, it is customary to wipe out a hollow tooth, or to cleanse a cavity, by means of small particles or bunches of cotton or other fiber applied to, or twisted about, the end of the excavator or other tool, or held in pliers. This cotton (as now usually practiced) is pulled out from a mass of loose cotton, and is twisted about the excavator. After use the cotton, being usually covered with blood or other offensive matter, is removed or detached from the excavator, or other suitable holder, by the fingers—a very objectionable operation, both on account of the odor left by the cotton on the fingers, and because the fingers are liable to be covered with blood.

The object of this invention is to provide a holder or box to retain the cotton or other fiber, so that it may be easily picked up in small quantities without requiring the use of both hands, as usual, ready to be applied to the excavator or other tool; and after being used, this cotton is removed without touching it with the fingers, through the action of a detacher.

Figure 1 represents the improved cotton or fiber holder and detacher combined in a single case; Fig. 2, a vertical section thereof; Fig. 3, a detail of the top plate removed; and Figs. 4 and 5 are modified forms of detachers.

The case *a* may be made of wood, metal, india-rubber, paper, or other suitable material, and of any suitable size and form. Within the case are placed two boxes. One box, *b*, is provided at top, or at other suitable portion thereof, with a grating or reticulated opening, formed of cross-bars or wires *c*. Cotton is placed within this box, under the grating, and

the movable bottom piece *d*, attached to a spiral or other spring, *e*, secured to a spring holding-plate, *f*, is applied within the box, so as to press the cotton up against the grating. Lugs *2* at the bottom of the box prevent the holding-plate from being moved out of the box by the pressure of the spring, and the spring consequently acts to raise the bottom piece to hold the cotton up against the grating. The box *b* is held within the case by means of top plate *g*, (in this instance shown as a sliding plate;) but it is obvious that the plate may be hinged to the box or outside case, or be held in position by means of hooks or buttons. The box may be held within the case by other devices than the plate, and if the box is used without an outer case the plate *g* may be omitted. The cotton *h*, held in the box or receptacle *b*, may be readily pulled out between the cross-bars *c c*, in the quantities desired, without handling the entire mass of cotton, as heretofore usual, and the cotton not pulled out is not liable to become soiled. The box *i*, to receive the detached or refuse pieces of soiled cotton, is, preferably, placed contiguous to the cotton-holding box *b*, and within the same outer case, as shown. A portion, *j*, of the top plate *g*, provided with an opening, *k*, having a contracted or small slot or slots, *l*, acts as the detacher.

The soiled cotton attached to the excavator, or held by any other tool, is passed into the opening *k*. The tool is then moved laterally into the narrow slot, and is raised or lifted out of such slot, and in rising the cotton meets the edges of the plate of the detacher, and is detached from the tool, the waste or refuse lump dropping into the refuse-box *i*, to be afterward removed.

The shape of the opening in the detacher may be of any suitable or irregular form, to properly permit the passage of the cotton below it into the box, and then to meet the edges of the detacher, and remove the cotton from the tool as the latter is lifted from the box or above the detacher. The detacher may be made to serve as a cover for the box *i*, and be fitted to the upper end of the box, in any usual way. As shown in the drawing, the box *i* may be removed by simply with-

drawing the plate *g*. The case *a*, adapted to contain both boxes *b* *i*, may be provided with a cover, either sliding or hinged, in any usual way, to exclude dust.

Instead of the detacher shown in Figs. 1 and 3, I may employ two spring-fingers, (see Fig. 4,) one or both of which may yield to permit the introduction of the tool between them to remove the waste cotton; or I may employ a plate, *m*, provided with a lip, *n*, and next to it a yielding plate, *o*, which may be pressed down to permit the passage between them of the tool to detach the cotton.

I can use as a detacher any devices that will permit the introduction between them of the tool, and which will then permit the tool to be moved longitudinally between them, and scrape the cotton from the tool. Instead of cotton, I may employ flax, paper, or any prepared fibers commonly used by dentists or doctors for similar uses.

I am aware that cotton has been held in a box provided with a single central opening.

I claim—

1. A detacher, substantially as described, for dental use, in combination with a receptacle for the detached refuse, or waste particles of cotton or other fiber, substantially as described.

2. The combination, with the cotton or fiber holder, of the detacher and receptacle for the detached cotton or fiber, all arranged with relation to each other, substantially as described.

3. A cotton or fiber holder, provided with a grating to detain the cotton or fiber, in combination with the detacher, all substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

THOMAS COGSWELL.

Witnesses:

G. W. GREGORY,
W. J. PRATT.