

No. 658,179.

Patented Sept. 18, 1900.

J. W. IVORY.
RUBBER DAM CLAMP.
(Application filed May 21, 1900.)

(No Model.)

Fig. 1.

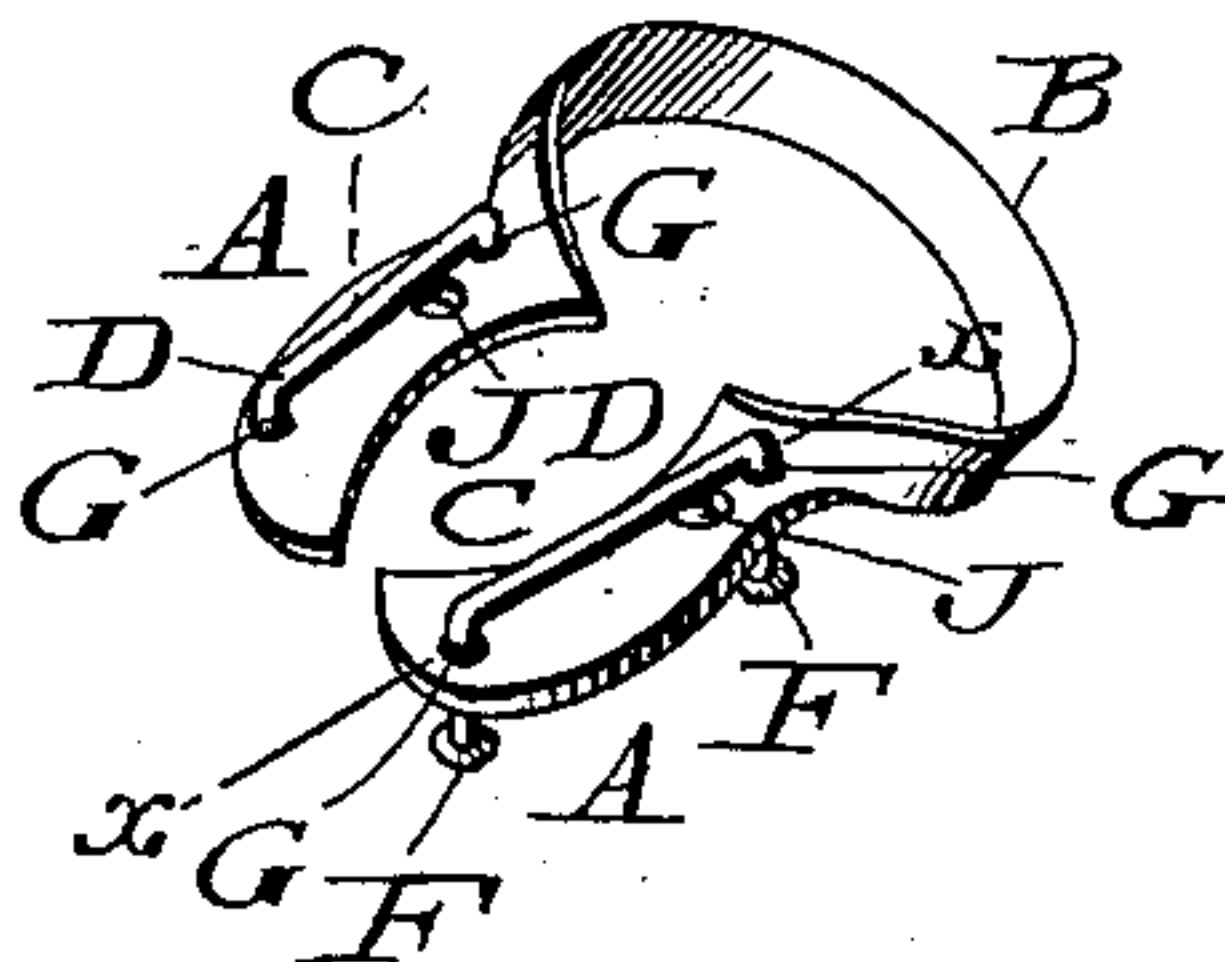


Fig. 2.

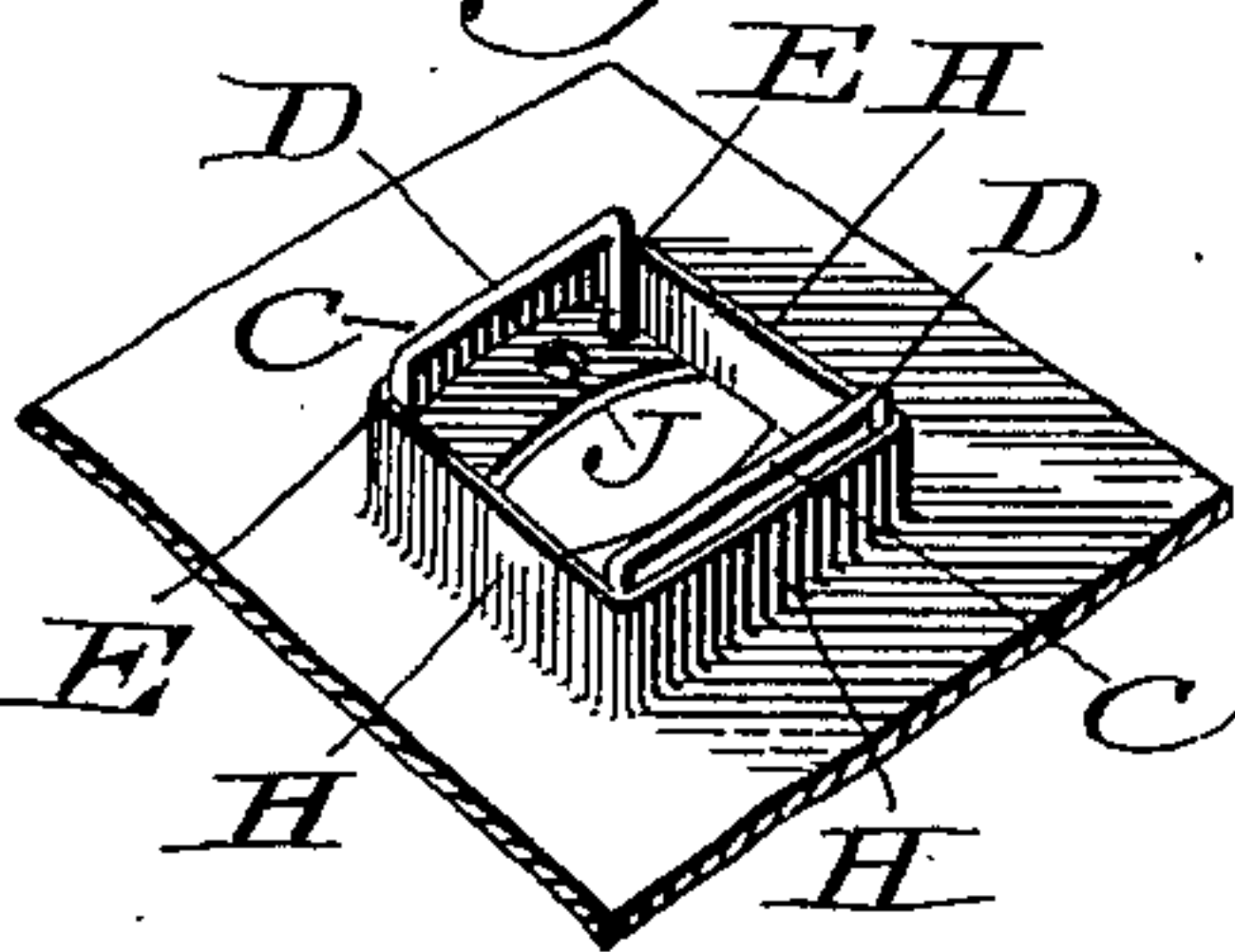


Fig. 5.

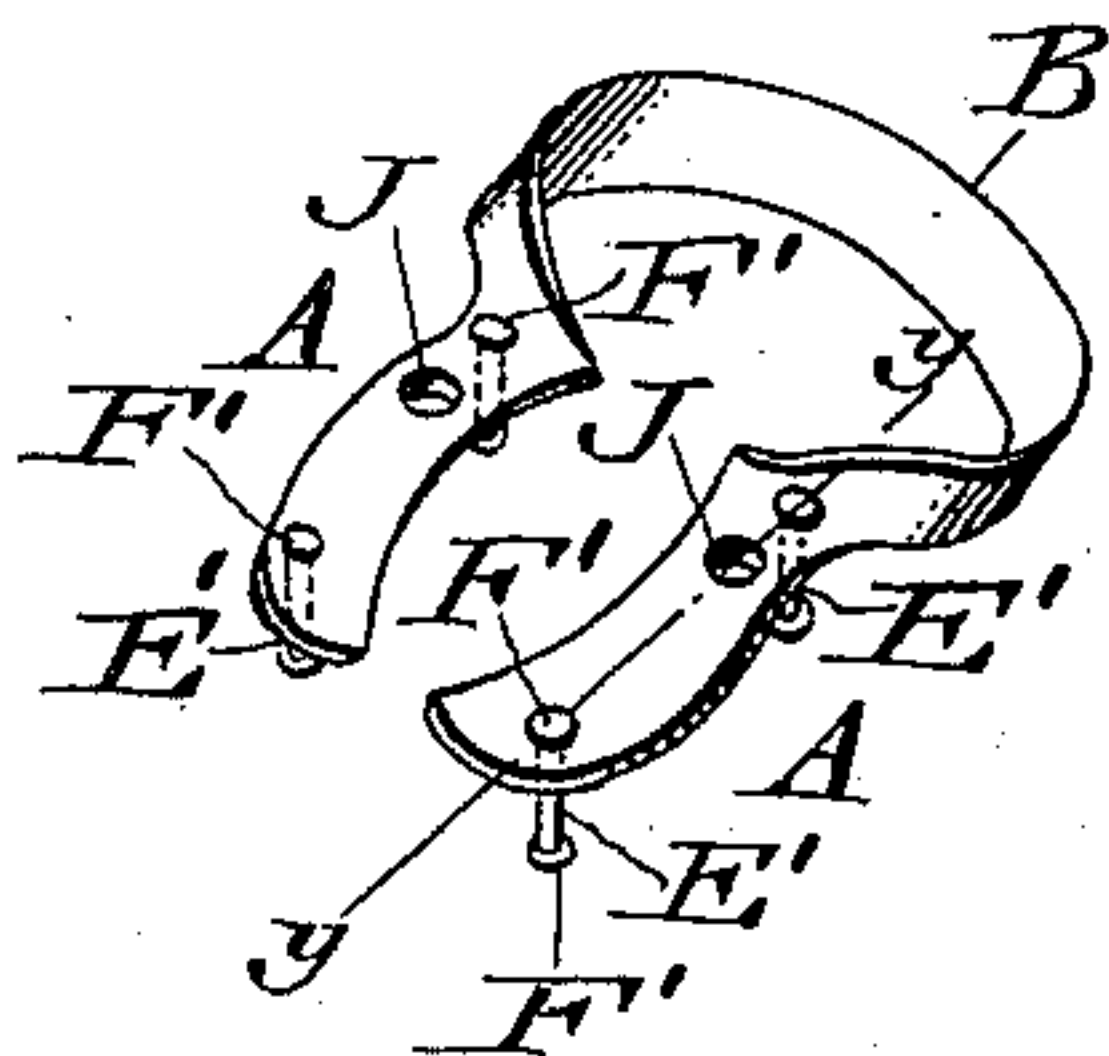


Fig. 6.

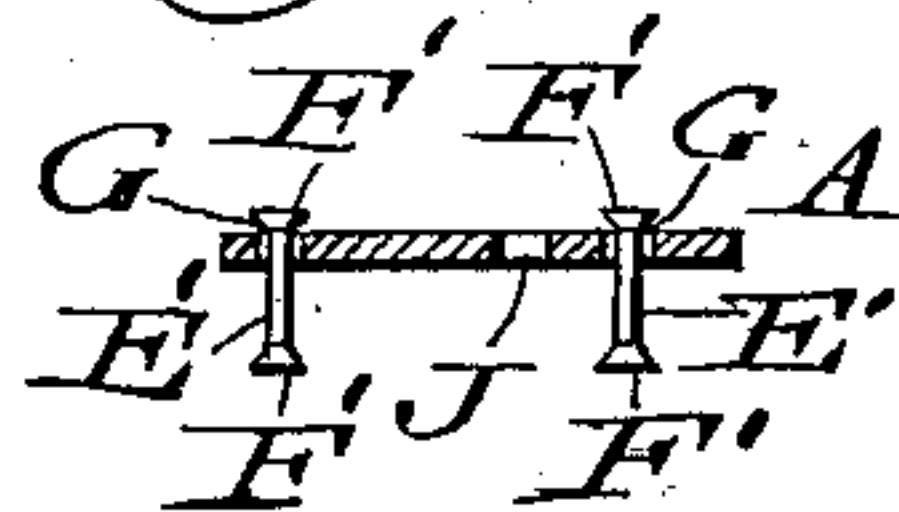


Fig. 3.

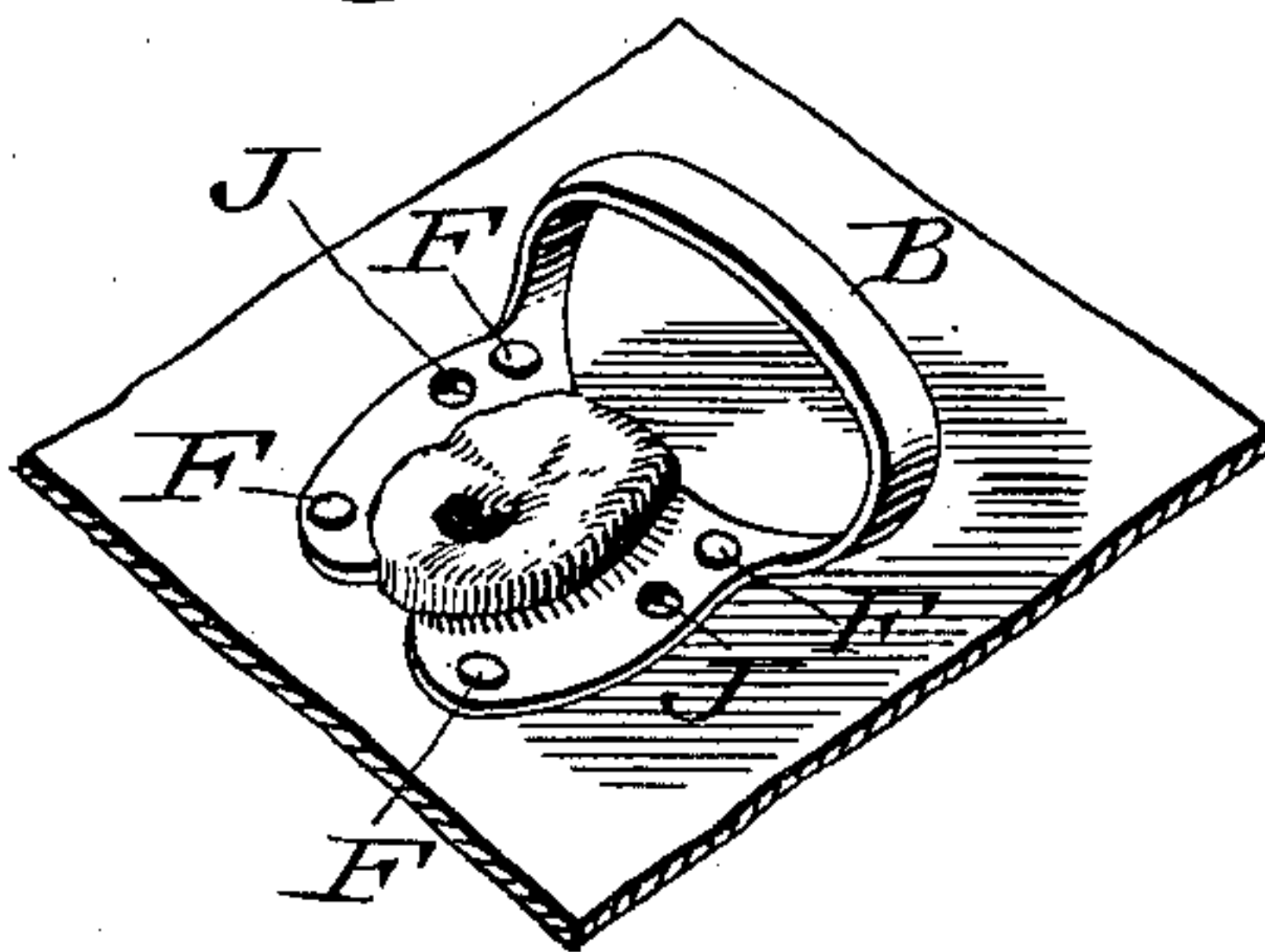


Fig. 7.

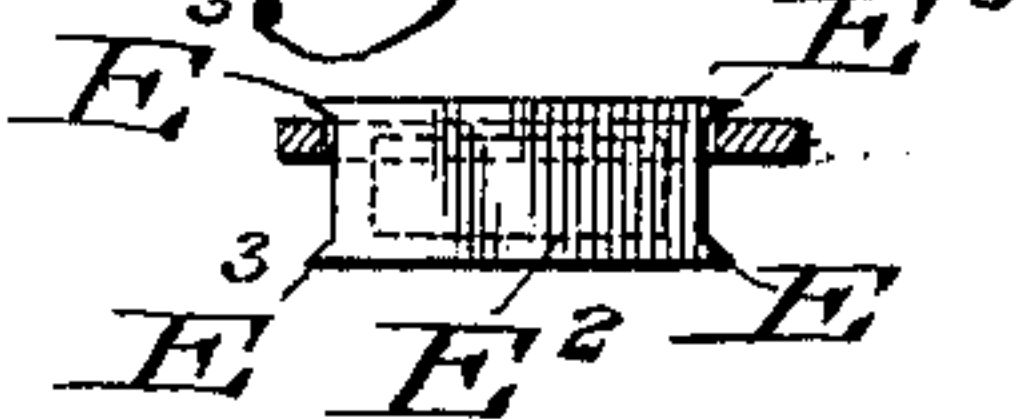


Fig. 8.

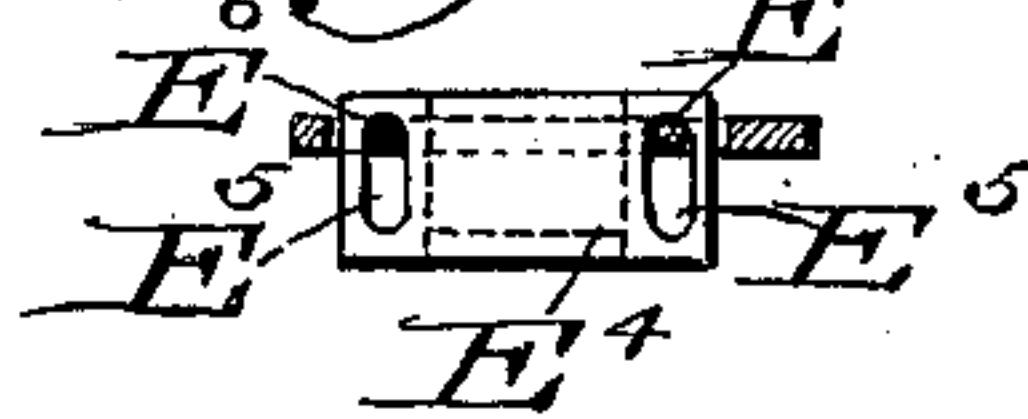
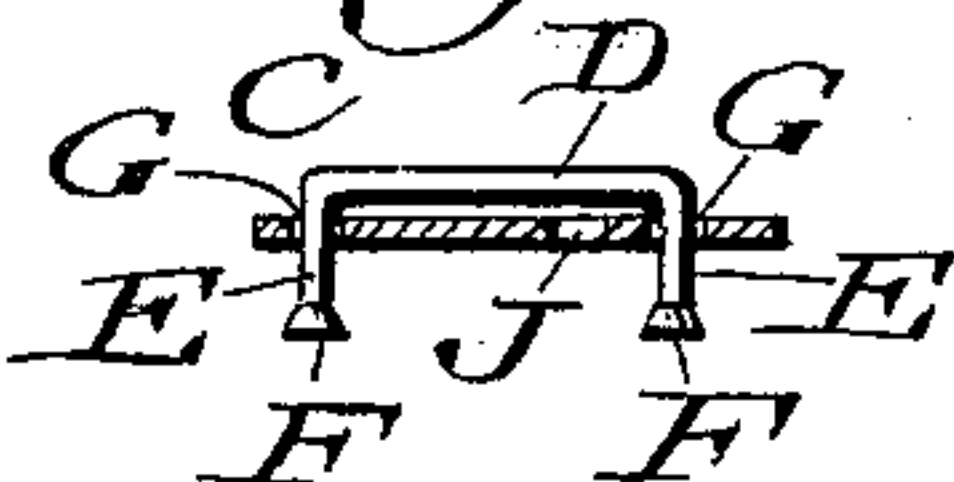


Fig. 4.



Witnesses

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UNITED STATES PATENT OFFICE.

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RUBBER-DAM CLAMP.

SPECIFICATION forming part of Letters Patent No. 658,179, dated September 18, 1900.

Application filed May 21, 1900. Serial No. 17,395. (No model.)

To all whom it may concern:

Be it known that I, JAMES W. IVORY, a subject of the Queen of Great Britain, residing in the city and county of Philadelphia, State of Pennsylvania, have invented a new and useful Improvement in Rubber-Dam Clamps, which improvement is fully set forth in the following specification and accompanying drawings.

My invention consists in providing the jaws of a rubber-dam clamp with reciprocatory tongues therein for adjusting the dam and retaining it in position and adapting it to be easily and quickly stripped from the clamp, while also reducing the weight and expense of the clamp.

Figures 1 and 5 represent inverted perspective views of rubber-dam adjusters and clamps, embodying my invention. Figs. 2 and 3 represent perspective views of opposite faces thereof, including a piece of the dam, the clamp and dam being in position on a tooth in Fig. 3. Fig. 4 represents a section on line X X, Fig. 1. Fig. 6 represents a section on line Y Y, Fig. 5. Figs. 7 and 8 represent sections of modifications.

Similar letters of reference indicate corresponding parts in the figures.

Referring to the drawings, A designates the jaws of the clamp, the same being connected by the spring B, which features, broadly considered, are well known. On the jaws are the tongues C C, each of which consists of the studs E, the bar D connecting the same, and the end shoulders or heads F, forming rectangular movable projections from the base of the jaws, the same being reciprocatory in openings G in said jaws.

The operation is as follows: The tongues are extended to their full length on the jaws, limited by the heads F, whereby they present their surfaces below the jaws. The rubber dam, with an opening therein, is then fitted over said tongues and stretched, so that the walls of said opening are thrown up, forming lips H, which extend around the tongues, thus firmly retaining the dam on the clamp. (See Fig. 2.) The jaws are now fitted on a tooth, the lips H readily entering between ad-

jacent teeth, the clamp firmly embracing the tooth and reliably holding the dam. When it is desired to remove the dam, the tongues are pressed up, whereby they clear the lips H, and the latter are relieved of the holding action of the tongues, the dam F thus being stripped from said tongues, and consequently from the clamp.

In the jaws are openings J for the insertion of the points or bills of forceps, whereby the clamp may be readily carried to a tooth and adjusted thereon and afterward removed therefrom.

In Figs. 5 and 6 the cross-bars D are dispensed with, and in lieu thereof I employ the tongues E², of the form of studs in pairs, the members of which are independent, and each tongue is provided with heads F' at its ends to prevent displacement from the jaw. In Fig. 7 I show a tongue of the form of a plate E², with controlling-flanges E³ on the ends thereof, said plate being fitted in a slot in the jaw. In Fig. 8 I show a plate E⁴, with slots E⁵ therein to receive the transverse pins E⁶ in the slot in the jaw which receives said plate and in which the latter is movable. In these constructions, Figs. 5, 6, 7, and 8, the lip of the rubber dam may be thrown up around the several tongues with the same result as in the construction of the previous figures.

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

1. In a rubber-dam clamp, a tooth engaging and clamping jaw having an opening therein and a reciprocatory dam-holding tongue in said opening.

2. In a rubber-dam clamp, a tooth engaging and clamping jaw with an opening therein and a reciprocatory dam-holding tongue in said opening, said tongue being provided with means for controlling the same in said opening.

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Witnesses:

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