

No. 814,056.

PATENTED MAR. 6, 1906.

C. M. LEFFINGWELL.  
DENTAL MATRIX RETAINER.  
APPLICATION FILED FEB. 21, 1905.

Fig. 1.

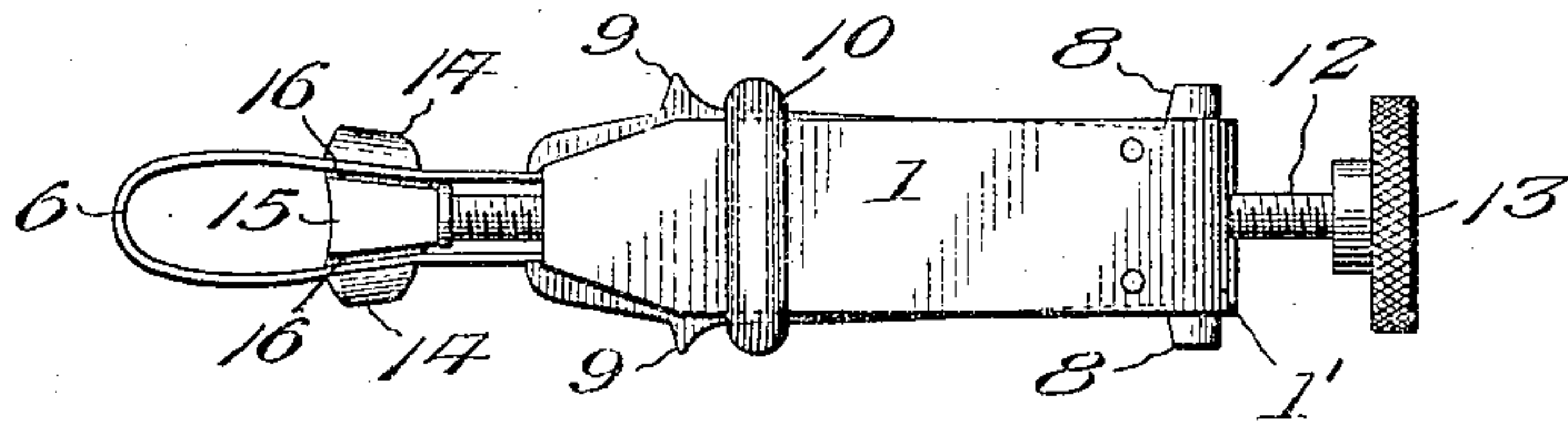


Fig. 2.

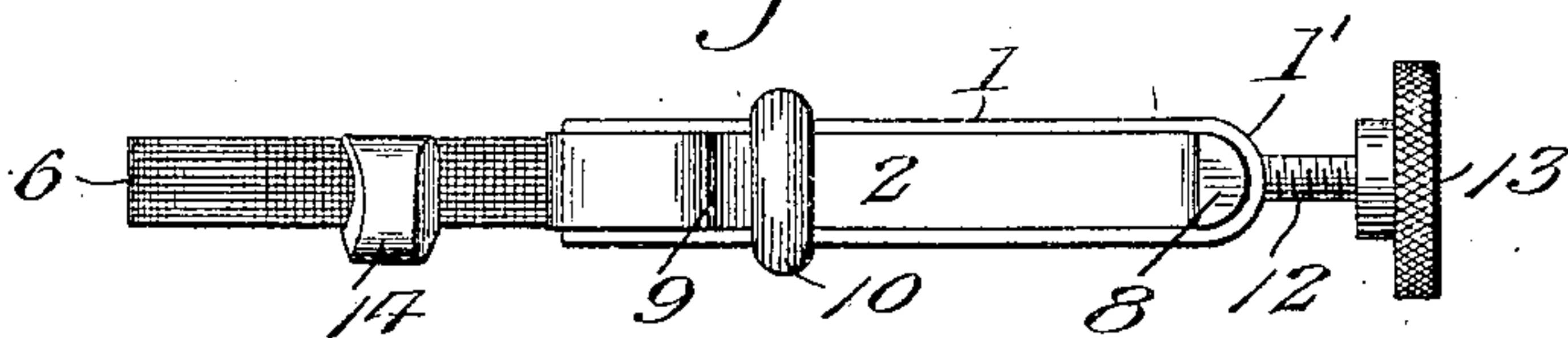


Fig. 3.

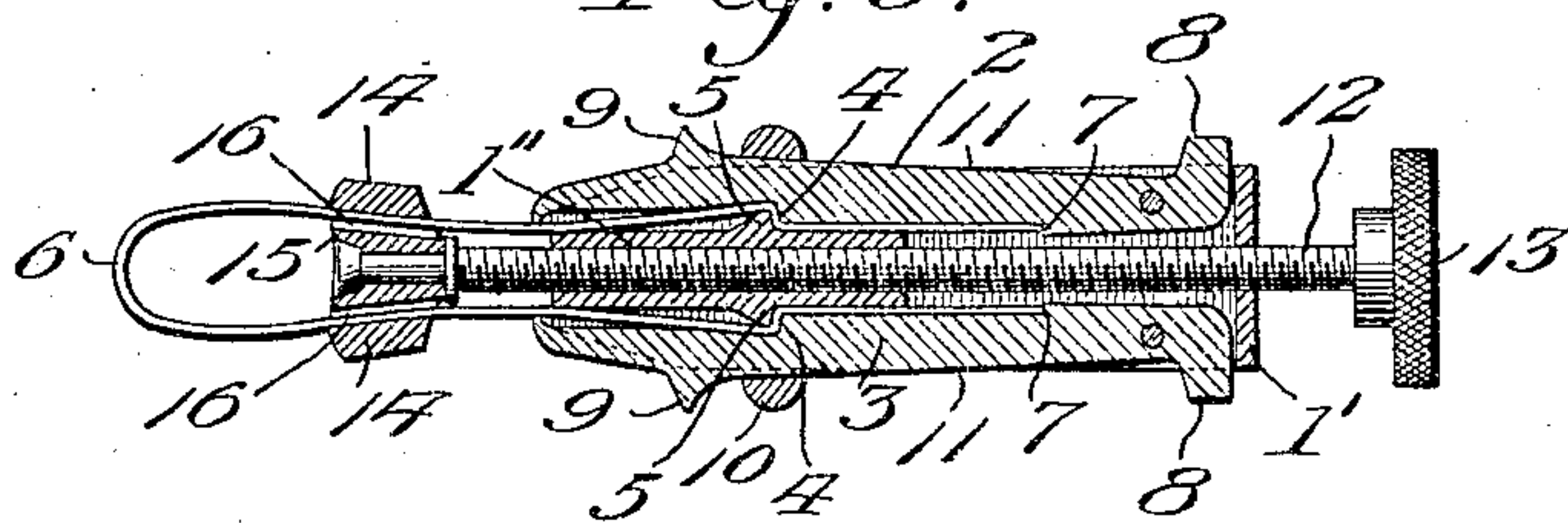
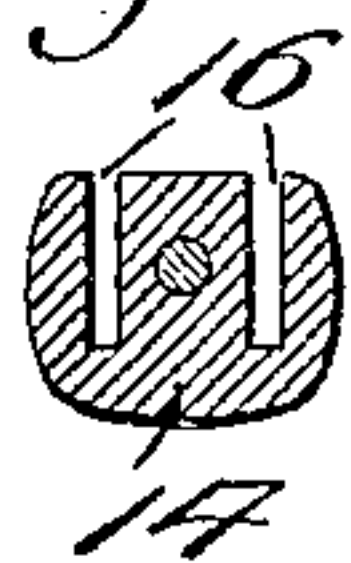


Fig. 4.



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# UNITED STATES PATENT OFFICE.

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## DENTAL-MATRIX RETAINER.

No. 814,056.

Specification of Letters Patent.

Patented March 6, 1906.

Application filed February 21, 1905. Serial No. 246,796.

*To all whom it may concern:*

Be it known that I, CLOSSON M. LEFFINGWELL, a citizen of the United States, residing at Little Falls, in the county of Morrison and State of Minnesota, have invented new and useful Improvements in Dental-Matrix Retainers, of which the following is a specification.

This invention relates to dental-matrix retainers.

The objects of the invention are to improve and simplify the construction of such devices; furthermore, to increase their efficiency in operation.

With the foregoing and other objects in view, which will appear as the description proceeds, the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed as a practical embodiment thereof.

In the accompanying drawings, forming part of this specification, Figure 1 is a plan view of a matrix-retainer constructed in accordance with the invention. Fig. 2 is a side elevation thereof. Fig. 3 is a horizontal section, and Fig. 4 is a transverse section through the swiveled head.

Like reference-numerals indicate corresponding parts in the different views.

The reference-numeral 1 indicates a block which is formed in its opposite sides with recesses in which are pivotally mounted clamping members 2 3. Each of the clamping members 2 and 3 is formed on its inner face with a shoulder 4, which coöperates with a similar shoulder 5, formed in the recess of the block, the shoulders 4 and 5 being adapted to exert a biting action on the matrix-retainer band 6. In addition to the shoulders 4 each of the clamping members 2 and 3 is also formed with a shoulder 7, the function of which is to limit the extent to which the ends of the matrix-retaining band 6 may pass into the block 1. Each of the clamping members 2 and 3 is formed on its outer side with a pair of projections 8 and 9, which serve to limit the movement of a ring 10. The rear sides 11 of each clamping member between the projections 8 and 9 are inclined outwardly, as shown, so that when the ring 10 is moved toward the rear end of the device the clamping members 2 and 3 may be separated to release the matrix-retaining band 6, and when said ring is

moved toward the forward end of the device the clamping members 2 and 3 are locked together, so as to hold the matrix-retaining band 6 securely in position.

Extending longitudinally through the block 1 is a screw-shaft 12, to the rear end of which is removably secured a finger-piece or disk 13 for use in rotating the shaft. Swiveled upon the forward end of the shaft 12 is a head 14, the forward end of which is channeled, as indicated at 15. On opposite sides of the channel portion 15 the head 14 is formed with open-ended slots 16, adapted to receive the matrix-retaining band 6.

While the block 1 may be formed of a single piece of material, if desired, said block preferably comprises a strip 1', of sheet metal, which is bent upon itself, as shown in Fig. 2, and secured in any suitable manner, as by solder or rivets, to a filling-piece 1''.

Having thus described the invention, what is claimed as new is—

1. A dental-matrix retainer having pivoted clamping members formed on their outer edges with projections, and a ring surrounding said clamping members between said projections.

2. A dental-matrix retainer having an adjustable slotted head adapted to abut against a tooth and having a channel in its forward end.

3. A dental-matrix retainer comprising a block, means for securing a matrix-retaining band to said block, a screw-shaft extending through said shaft, and a head swiveled on said screw-shaft and formed with slots, said head being adapted to abut against a tooth and having a channel in its forward end.

4. A dental-matrix retainer comprising a block, clamping members pivotally connected with said block and having projections on their outer edges, a ring surrounding said block and clamping members between said projections, a screw-shaft extending through said block, and a head swiveled on the forward end of said screw-shaft, said head being formed with a channel and having open-ended slots on opposite sides of said channel.

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

CLOSSON M. LEFFINGWELL.

Witnesses:

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