

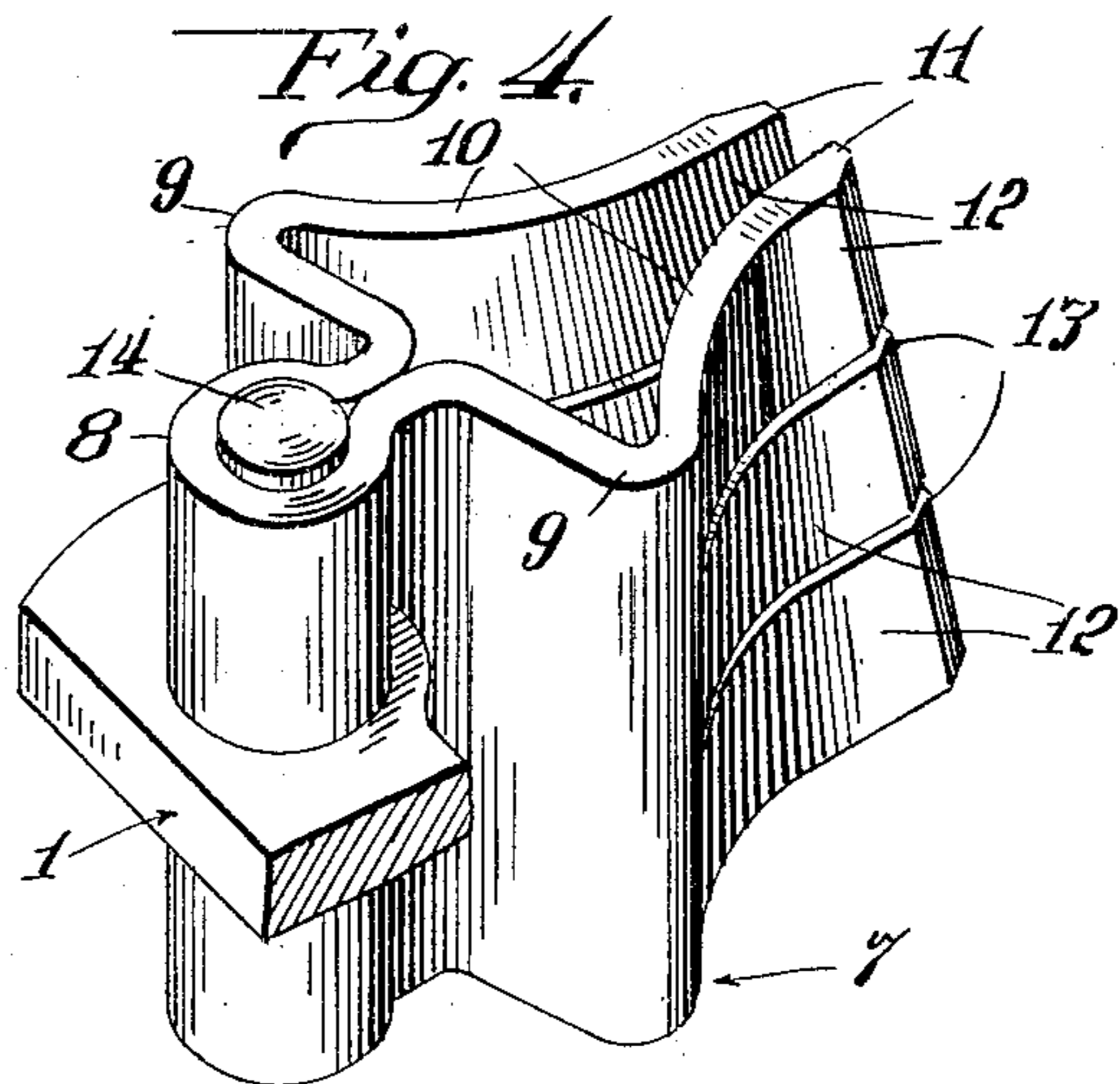
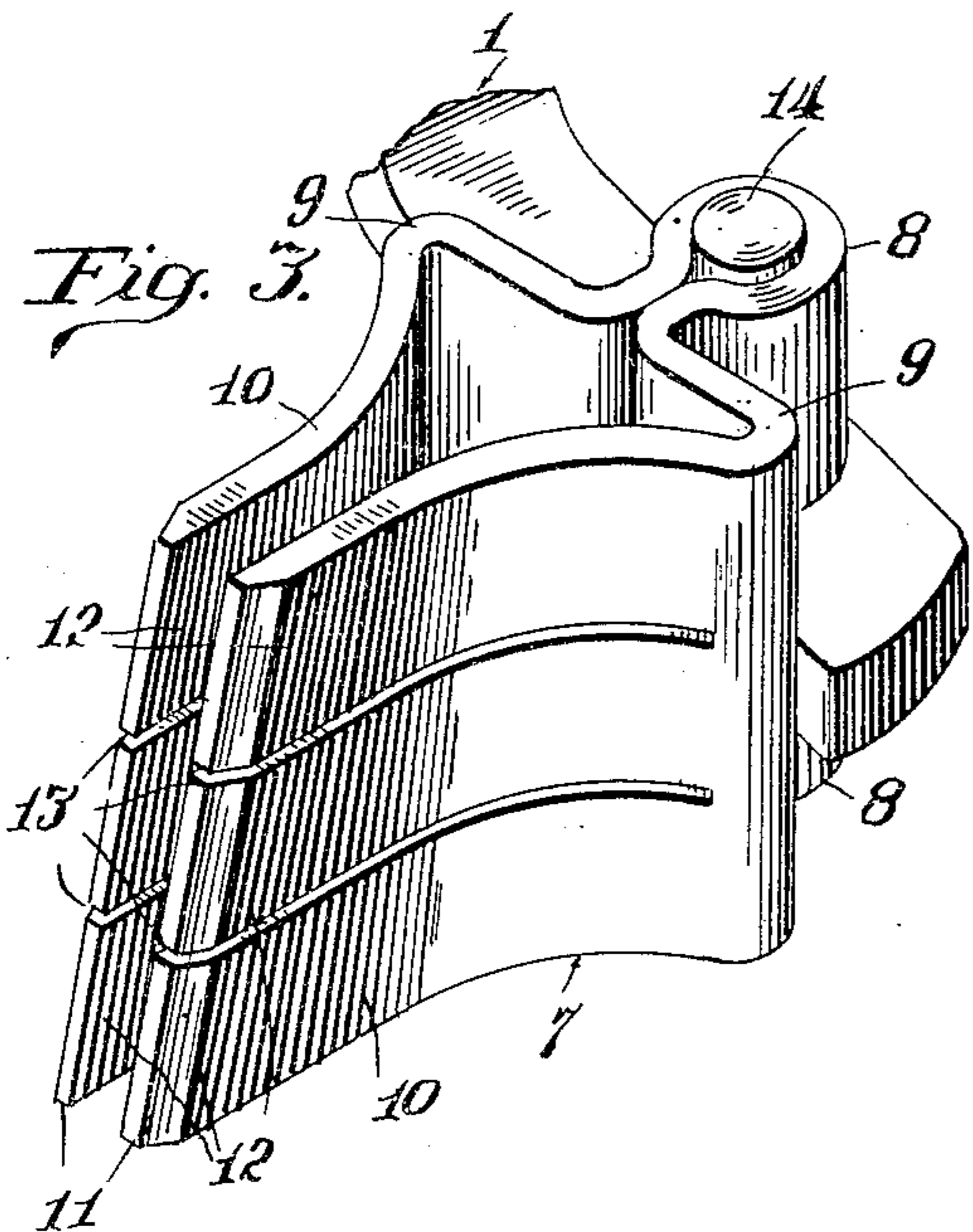
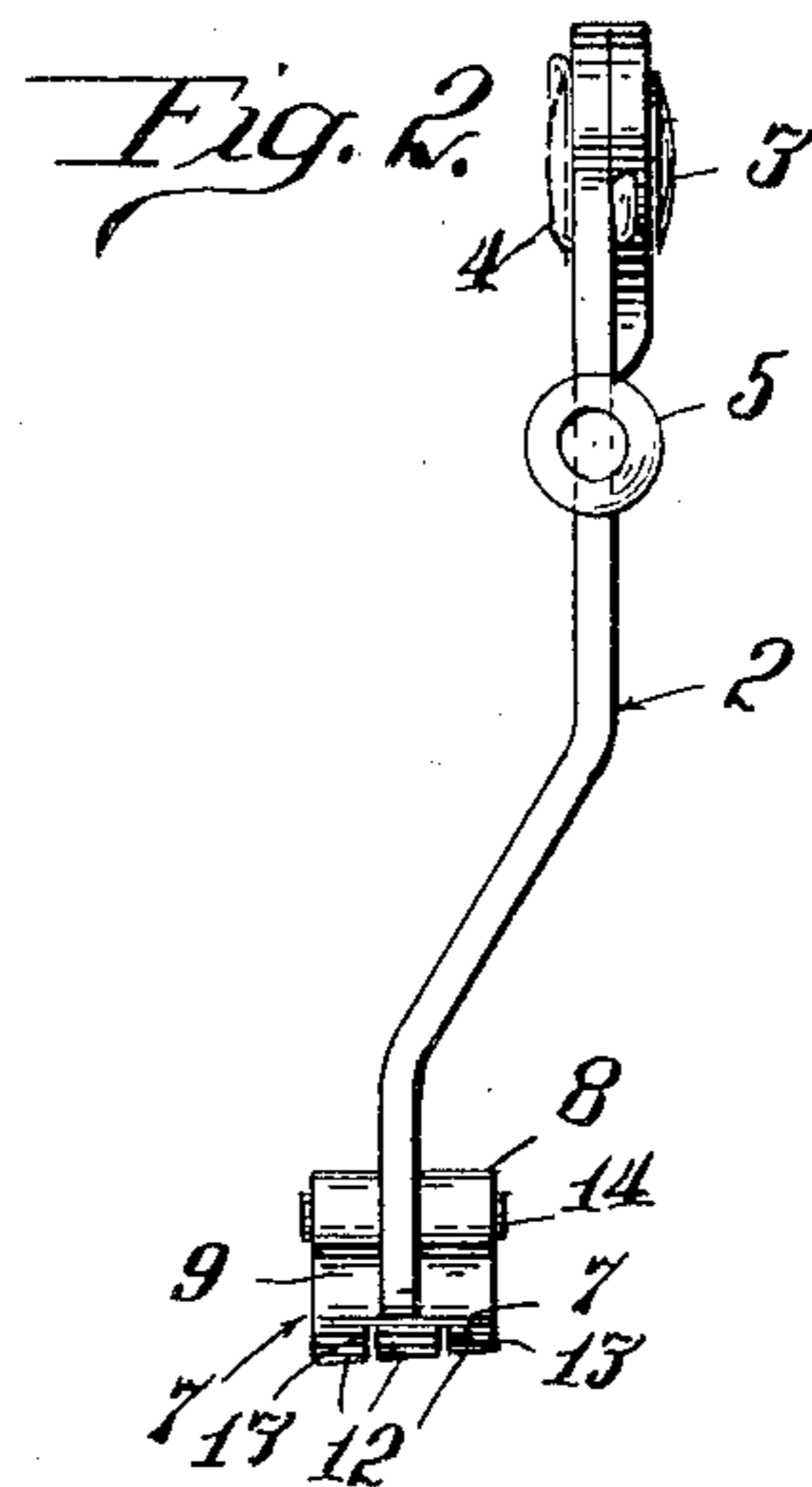
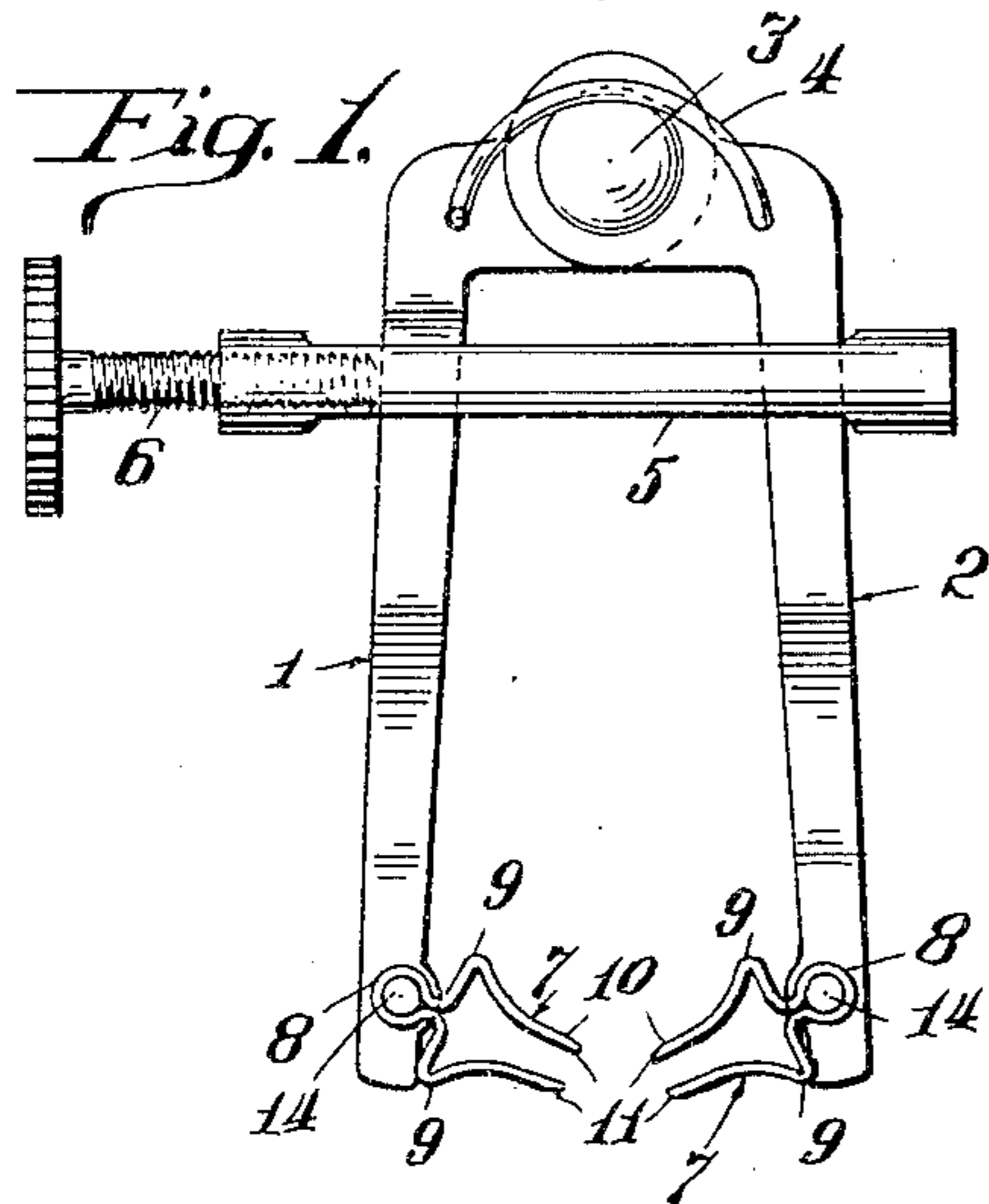
May 9, 1933.

W. E. HARPER

1,908,145

DENTAL MATRIX HOLDER JAW

Filed June 24, 1931



Inventor
William E. Harper
Barnett & Nyman
Attorneys

UNITED STATES PATENT OFFICE

WILLIAM E. HARPER, OF CHICAGO, ILLINOIS

DENTAL MATRIX HOLDER JAW

Application filed June 24, 1931. Serial No. 546,484.

My invention relates to new and useful improvements in jaws for dental matrix holders.

In the filling of approximal cavities it is most desirable to restore the anatomical form of the tooth without leaving any rough edges or projections between the tooth and the filling which would be susceptible of catching and holding food which would result in decay. This is now done by inserting a matrix band between the tooth to be filled and the next one, bending it around the subject tooth and wedging it in position by means of a matrix retainer having a pair of wedge shaped jaws adapted to be moved together by means of a screw. The jaws now used are of solid construction with a pair of concave faces. With such jaws forming the matrix the anatomical shape of the tooth is only approximated and the resulting filling must be tediously and difficultly ground in order to fashion the filling flush with the tooth and eliminate the rough edges. The time required to so smooth the filling is of course chargeable to the patient and often such a charge is not justifiable, due to the financial inability of the patient, and as a result the edges and definite angles are allowed to remain. As a result food will collect in these irregularities and decay the tooth.

The principal object of my invention is to provide a flexible jaw for use with dental matrix holders that will conform the matrix band to the anatomical form of the tooth so that the resulting filling will be flush with the tooth, obviating the objectionable irregularities above noted.

Another object is to provide an improved jaw which will enable adjoining teeth to be separated to normal position for filling where they have tipped together, closing the interdental space.

Numerous other objects and advantages will be apparent from the following detailed description.

In the accompanying drawing:

Fig. 1 is a plan view of a typical dental matrix holder equipped with jaws embodying my invention;

Fig. 2 is a side elevation of the device shown in Fig. 1;

Fig. 3 is an enlarged front perspective view of my improved jaw; and

Fig. 4 is an enlarged rear perspective view.

Referring now more particularly to the drawing wherein like and corresponding parts are designated by similar reference characters throughout, 1 and 2 are a pair of arms pivoted together at 3 and held in open position by means of the spring 4. An internally threaded tube 5 is slotted to receive the two arms 1 and 2 and permit said arms to be moved together by means of screw member 6. At the end of each arm is pivotally mounted a jaw 7 made of spring metal. Each jaw 7 is fashioned from a single piece of metal which is bent to form a sleeve 8 for mounting the jaw on an arm of the holder, shoulders 9 and converging walls 10 slightly sharpened at their ends 11. The walls 10 are divided into equal sections 12 by means of horizontal cuts 13 which extend from the sharpened ends 11 to a point adjacent the shoulders 9. Each jaw is mounted on an arm of the matrix holder by means of a pin 14 which permits pivotal movement in a horizontal plane, the shoulders 9 abutting against the arm on which the jaw is mounted, thus limiting such movement so that the ends 11 of opposed jaws are always substantially in alignment with each other. It should be noted that in this construction as the jaw is forced between two teeth the walls 10 are compressed toward each other but the exact contour of the tooth is much more accurately followed because the sections 12 move independently of one another. Thus the matrix band is pressed firmly against the side of the tooth at all points adjacent the cavity to be filled following the anatomical form of the tooth, so that the resultant filling will be flush with the sides of the tooth.

I claim:

1. A jaw formed of spring metal for use with a dental matrix holder comprising a pair of shoulders, a pair of walls converging from said shoulders to a point adjacent each other and extending therefrom parallel to

- one another and means for mounting said jaw on an arm of said holder.
2. A jaw formed of spring metal for use with a dental matrix holder comprising a pair of shoulders, a pair of walls converging concavely from said shoulders to a point adjacent each other and extending therefrom parallel to each other and means for mounting said jaw on an arm of said holder.
3. A jaw formed of spring metal for use with a dental matrix holder comprising two separated converging spring walls forming a yieldable wedge and divided into horizontal sections, and means for pivotally mounting said jaw on an arm of a matrix holder.
4. A jaw formed of spring metal for use with a dental matrix holder comprising a sleeve, a pair of shoulders, a pair of walls converging from said shoulders and divided into independent sections, a pin adapted to fit within said sleeve for pivotally mounting said jaw on an arm of a dental matrix holder, said shoulders adapted to abut against the said arm to limit pivotal movement.
5. In combination, a dental matrix holder comprising two arms pivotally mounted together, means for moving the ends of said arms together, oppositely disposed jaws mounted on the ends of said arms, each formed of spring metal and comprising a sleeve, a pair of shoulders, a pair of walls converging from said shoulders and divided into independent sections, a pin adapted to fit within said sleeve for pivotally mounting said jaw on an arm of said holder, said shoulders adapted to abut against said arm to limit pivotal movement.
6. A jaw formed of spring metal for use with a dental matrix holder comprising a pair of shoulders, a pair of walls converging from said shoulders and divided into independent horizontal sections and means for pivotally mounting said jaw on an arm of the matrix holder.
7. A jaw formed of spring metal for use with a dental matrix holder comprising a pair of shoulders, a pair of walls converging from said shoulders to a point adjacent each other and extending therefrom parallel to one another, said walls divided into horizontal sections and means for mounting said jaw on an arm of said holder.
8. A jaw formed of spring metal for use with a dental matrix holder comprising a pair of shoulders, a pair of walls converging concavely from said shoulders to a point adjacent each other and extending therefrom parallel to each other said walls divided into horizontal sections, and means for pivotally mounting said jaw on said holder.
9. A jaw formed of a single piece of spring metal for use with a dental matrix holder comprising a pair of walls divided into horizontal sections parallel at the point of termination and diverging concavely to a pair of rounded shoulders, and a vertical sleeve formed between and behind said shoulders for mounting said jaw pivotally on an arm of said holder.
- WILLIAM E. HARPER.

70

75

80

85

90

95

100

105

110

115

120

125

130