No. 681,770. Patented Sept. 3. 1901.

W. J. WORSLEY.

TEETH SEPARATOR.

(Application filed Jan. 17, 1901.)

(No Model.)

Fig. 1

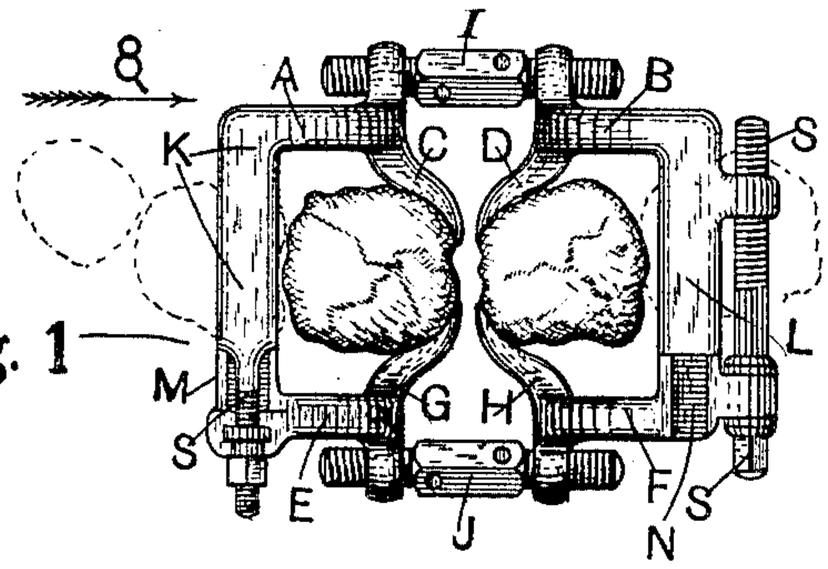


Fig. 2

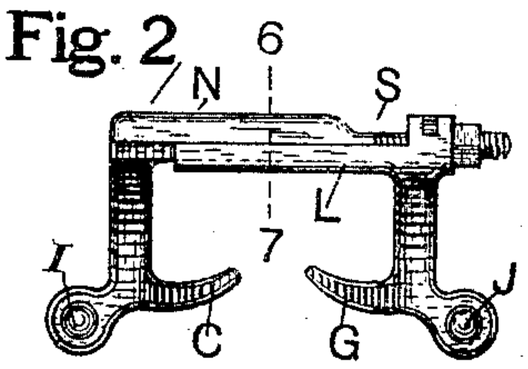


Fig. 3

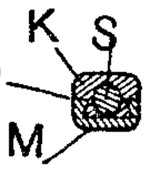


Fig. 4

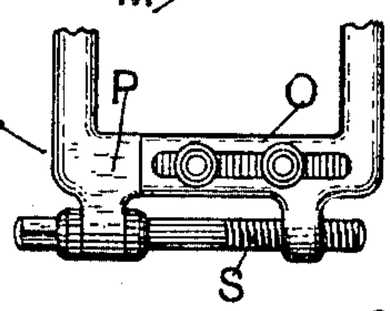
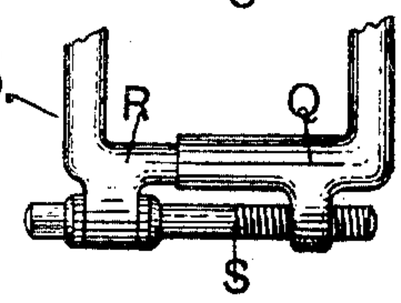


Fig. 5



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UNITED STATES PATENT OFFICE.

WILLARD J. WORSLEY, OF TINLEYPARK, ILLINOIS.

TEETH-SEPARATOR.

SPECIFICATION forming part of Letters Patent No. 681,770, dated September 3, 1901.

Application filed June 17, 1901. Serial No. 64,874. (No model.)

To all whom it may concern:

Be it known that I, WILLARD J. WORSLEY, a citizen of the United States, residing at Tinleypark, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Teeth-Separators, of which the following is a specification.

My invention relates to means for separating teeth in dental operations, my object being to improve the construction of separators now in use; and the invention consists in an improved frame in which greater strength is attained than heretofore to resist torsional strains, thus adapting the device when in use to secure a firm hold upon the slanting necks of teeth and prevent slipping from the proper position, the same being more fully described hereinafter and is illustrated in the accompanying drawings, in which—

Figure 1 is a plan on a larger than the natural scale, showing the device as it appears when applied in the operation of separating two large posterior teeth. Fig. 2 is an end elevation, looking in the direction indicated by arrow 8, Fig. 1, to illustrate one method of slidingly mounting two inwardly-projecting arms of the frame and also shows one of the adjusting-screws, which is also seen in the left-hand side of the plan, Fig. 1, the right-hand screw in this figure being shown in engagement with two lateral lugs as a modification of the method of mounting the first-named screw. Fig. 3 is a cross-section on broken line 6 7, Fig. 2, to illustrate how the sliding parts may be dovetailed together. Figs. 4 and 5 are plans of portions of the side of the frame to illustrate modifications in the manner of mounting the sliding portions to attain the same results as shown in Fig. 1.

Similar letters indicate like parts throughout the several views.

The complete separator comprises a pair of sectional bows, of which each consists of the parts such as A and E and B and F. The parts A and E form the left-hand bow, Fig. 1, and these parts are respectively provided with separating-jaws C and G, while the right-hand bow is formed by the parts B and F, and the latter have respectively separating-jaws D and K, the pairs of jaws being adapted to engage with oppositely-disposed teeth near the margin of the gum. Screws I and J adjustably connect, respectively, the parts A and B and E and F of opposite bows. The outer ends of parts A and B and E and F are in this instance provided with inwardly-disposed arms, such as K L and M N, or such lugs or arms as O P or Q R. (Shown in the modifications in Figs. 4 and 5.) These arms are so formed and disposed that those on one side of the device will slidingly yet very firmly engage with those of the opposite side, whether they are dovetailed together, as shown in Figs. 1, 2, and 3, or slotted with holding-down screws, Fig. 4, or the parts fitted together as cylinder and piston, Fig. 5. Screws, such as S, may be applied in many ways to cause the lugs or arms to slide one upon or into another, as shown in the different figures, without altering the intent of the invention, which is to provide a frame construction such that the bows may be securely held in any desired position without twisting from their normal shape sufficiently to cause the separating-jaws to slip from their proper position on the teeth.

I claim as my invention—

In a teeth-separator, two oppositely-disposed bows each composed of sections adjustably connected and each bow provided with separating-jaws, each section having an inwardly-projecting arm at the outer end, the arms of opposite sections of each bow in longitudinal sliding engagement, and a screw for each pair of arms for the purpose stated.

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

WILLARD J. WORSLEY.

Witnesses:

OSCAR SNELL,

EDWARD E. WILSON.