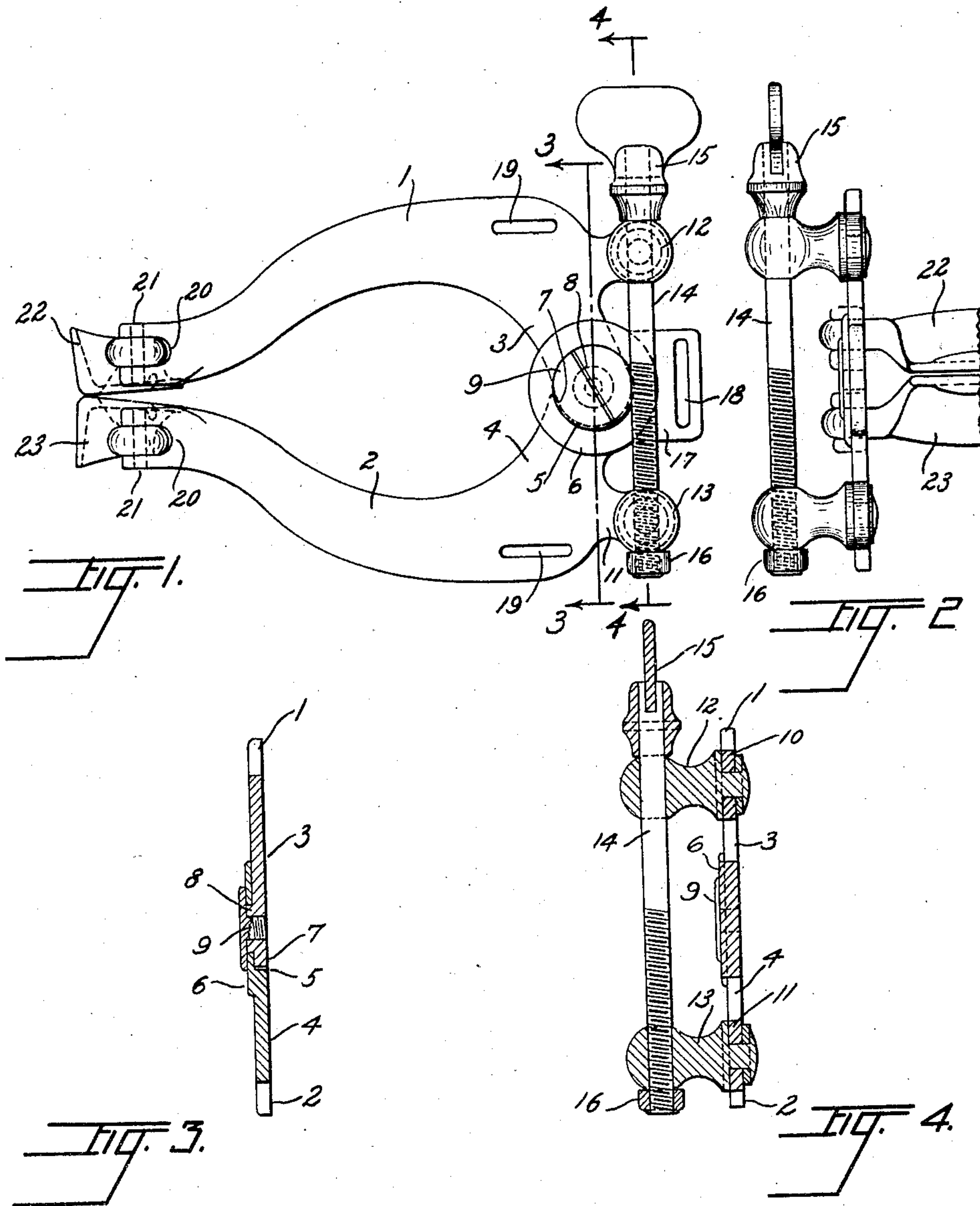


J. F. KOEHLER.
MOUTH SPECULUM.
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976,812.

Patented Nov. 22, 1910.



WITNESSES:

W. W. Withenbury

INVENTOR

John F. Koehler
By *Robert Klotz*

ATTORNEY

UNITED STATES PATENT OFFICE.

JOHN F. KOEHLER, OF WEST HAMMOND, ILLINOIS.

MOUTH-SPECULUM.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, JOHN F. KOEHLER, a citizen of the United States, and residing at West Hammond, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Mouth-Specula, of which the following is a complete specification.

The main objects of this invention are to provide a mouth speculum which will have positively acting opening and closing movements; to provide a mouth speculum in which the movement of the jaw-bars is always under complete control of the operator; and to provide a cheap, simple and easily operable mouth speculum, having but few and simple parts which will not easily get out of repair.

A specific construction embodying the invention is illustrated in the accompanying drawings, in which:

Figure 1 is a side elevation of one of the side members of the mouth speculum. Fig. 2 is a rear elevation of the same showing the teeth plates broken away. Fig. 3 is a section taken on line 3—3 of Fig. 1 with parts beyond the line of section omitted. Fig. 4 is a section taken on line 4—4 of Fig. 1 with parts beyond the line of section omitted.

In this construction two side members, each comprising an upper jaw-bar 1 and a lower jaw-bar 2, are employed, one member on each side of the animal's head, but since the side members are identical, with the exception that they are rights and lefts, only one side member is shown.

The jaw-bars 1 and 2 curve oppositely intermediate their ends, and the rear ends 3 and 4 are pivotally connected together. The end 4 is provided with a circular socket 5 and an integral plate 6 extends upwardly from the outer face of said end and overlaps the end 3 which is rounded at 7 to correspond to the socket 5. On the outer face of the end 3 is an internally threaded boss 8 which extends through an aperture in the plate 6 and forms the bearing or pivot between the jaw-bars, and a screw 9 is threaded into the boss from the outer face of the jaw-bars and its head overlaps the plate 6 and holds the jaw-bars connected.

The jaw-bars 1 and 2 are provided respectively with rearwardly directed arms 10 and 11, in which are journaled the outwardly or laterally directed posts 12 and 13. An operating bolt 14 is journaled in the post

12 and has threaded connection in the post 13. The bolt is provided on its upper end with a winged head 15, by means of which the bolt may be rotated, and which bears against the post 12. On the lower end of the bolt, beneath the post 13, is a head or nut 16 adapted to abut against the post 13 when the jaw-bars are in closed or nearly closed position, and prevent the bolt from being withdrawn.

A rearwardly extending lug 17 is formed on the plate 6 and has a slot 18 therein to receive a strap which passes over the animal's head, and the jaw-bars have slots 19 near their rear ends which receive straps to pass over and under the animal's jaws in the usual manner.

The forward ends of the jaw-bars are notched or forked at 20, and in each fork is a pin 22 to which the cupped teeth plates 22 and 23 of the usual construction are hooked in the usual manner.

The operation of the construction shown is as follows: The side members, with the jaw-bars closed and the teeth plates inserted between the animal's jaws, are secured one on each side of the animal's head. The bolts 14 are then rotated in a direction to cause them to travel downwardly through the posts 13. The heads 15 bear downwardly on the posts 12 and the oppositely directed forces acting on the arms 10 and 11 cause the jaw bars to open and force the animal's jaws apart. When the bolts are rotated in the reverse direction the jaw-bars are permitted to close, but are always in complete control of the operator so that the danger of the animal's jaws coming together with such force as to injure the teeth is entirely obviated.

Although but one specific embodiment of the invention is herein shown it will be understood that many details of the construction shown may be varied or omitted without departing from the spirit of the invention.

I claim:

1. A mouth speculum, comprising a pair of pivotally connected jaw-bars, a bolt support journaled on each jaw-bar and a bolt journaled on one of said supports and having threaded connection with the other support and adapted when rotated to open or close the bars.

2. A mouth speculum, comprising a pair of side members adapted to be connected to-

gether, each side member having pivotally connected jaw-bars, a bolt connecting the jaw-bars and adapted to open and close the same and supporting means for said bolt
5 journaled in the jaw-bars.

3. A mouth speculum, comprising a pair of side members adapted to be connected together, each side member comprising a pair of pivotally connected jaw-bars, apertured posts journaled on said jaw-bars and
10 rotative means connecting the posts and adapted to open or close the jaw-bars.

4. A side member for a mouth speculum, comprising a pair of jaw-bars, means pivotally connecting the jaw-bars at their rear ends, a post on each jaw-bar, and a bolt
15 journaled in one post and having threaded connection in the other post.

5. A side member for a mouth speculum, comprising a jaw-bar having a socket therein, a laterally offset, apertured plate carried on said bar at one side of said socket, a jaw-
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bar having a laterally directed, internally threaded boss journaled in the aperture in said plate, a screw engaged in said aperture
25 and having its head overlapping said plate, apertured posts journaled on said jaw-bars, and an operating bolt journaled in one post and having threaded engagement in the other post.
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6. A mouth speculum, comprising upper and lower jaw-bars, means pivotally connecting the upper jaw-bars with the lower jaw-bars, posts journaled in the jaw-bars, and operating bolts rotatively mounted in
35 said posts and adapted to open or close the jaw-bars.

In testimony whereof I have hereunto subscribed my name in the presence of two witnesses.

JOHN F. KOEHLER.

Witnesses:

CARL A. LINDNER,
HENRY F. LINDNER.