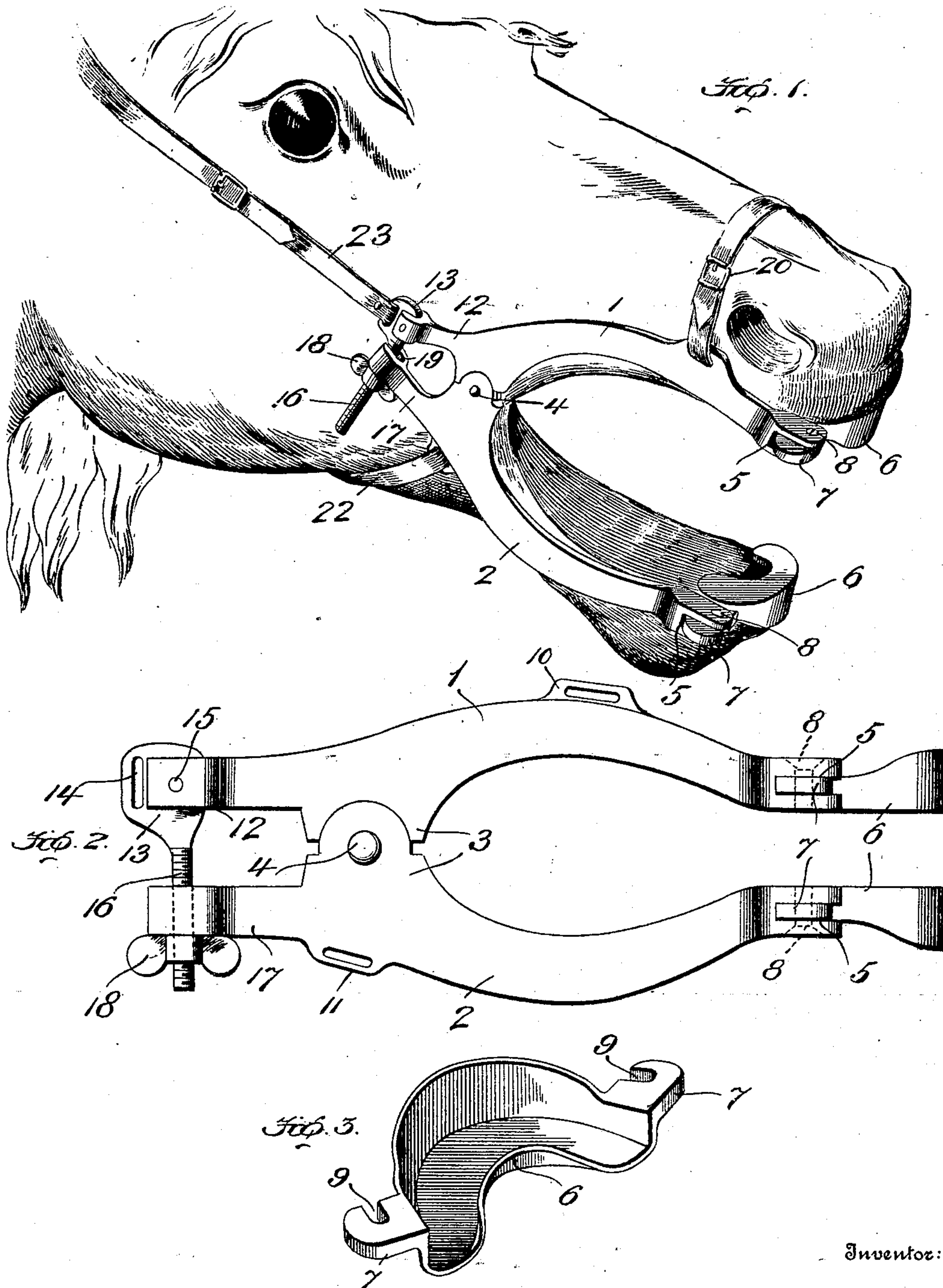


No. 886,522.

PATENTED MAY 5, 1908.

N. W. KYLE.
MOUTH SPECULUM.

APPLICATION FILED JUNE 11, 1906.



Witnesses:

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UNITED STATES PATENT OFFICE.

NICHOLAS W. KYLE, OF COLFAX, ILLINOIS.

MOUTH-SPECULUM.

No. 886,522.

Specification of Letters Patent.

Patented May 5, 1908.

Application filed June 11, 1906. Serial No. 321,136.

To all whom it may concern:

Be it known that I, NICHOLAS W. KYLE, a citizen of the United States, residing at Colfax, in the county of McLean and State of Illinois, have invented a new and useful Mouth-Speculum, of which the following is a specification.

This invention relates to improvements in mouth speculums, employed in surgical operations upon horses and other animals, for the purpose of retaining the mouths of such animals open during the operation.

The objects of the invention are to produce at a minimum cost a very simple, compact and durable contrivance for this purpose, and through the medium of which an animal's mouth may be opened to the desired degree and securely retained in such position during the carrying on of any desired and necessary operation.

Other objects and advantages of the invention will hereinafter appear, and the novel features of the invention will be particularly pointed out in the claims.

Referring to the drawing—Figure 1 illustrates a mouth speculum containing my improvements in position upon the head of a horse, the mouth of the animal being shown locked open by means of the device; Fig. 2 is a side elevation of the speculum in detail; and, Fig. 3 is a detail in perspective of the mouth-plate.

Similar numerals of reference indicate similar parts in all the figures of the drawing.

My improved speculum comprises at each side an upper member 1 and a lower member 2, the same being provided at their inner sides and near their inner ends with inward extensions 3, pivoted together, as at 4, and combining to form an ordinary rule-joint or hinge capable of permitting said members to have a limited separation. Between said joint or hinge points and their front ends, the members 1 and 2 are preferably curved outwardly or away from each other, and each of said members finally terminates at its outer or front end in a transverse slot 3, the walls of which are vertically bored, as shown by dotted lines.

In the mouth-plates 6, intended to engage the incisor-teeth of the animal, may be given any desired construction or form, but I have herein shown and prefer to employ the conventional style. I also prefer to provide each end of each plate with an extension or lug 7, notching the front edge of the lug, as

at 9. These mouth-plates, as will be seen in Fig. 1, are reversed relatively to each other, and the slotted lugs 7 thereof are inserted within the slots 5 of the members 1 and 2, in which position they are held against removal by means of screws 8. (See dotted lines, Fig. 2.) The rear or unslotted edges of the lugs 7 abut against the rear solid walls of the slots 5, and the screws being in the notches or slots 9 and therefore in front of the lugs, it will be apparent that the mouth-plates when in position cannot possibly slip or get out of position. At the same time, by loosening the screws and withdrawing them sufficiently to clear the lugs 9 of the mouth-plates, the latter may be very readily removed.

For the purpose of aiding in securing the device in position, the upper members 1 are provided with loops 10, to accommodate the usual nose-band, and the lower members with similar loops 11, to accommodate the chin-strap, the nose-band and chin-strap being respectively designated as 20 and 22, Fig. 1.

Beyond or in rear of the hinge-point between the two members, the upper member is extended as at 12, and the lower member is extended as at 17. The extension 12 is in the form of vertically slotted head, and the extension 17 in the form of a vertically bored head.

16 designates an adjusting bolt, the shank of which is extended loosely through the vertical bore of the extension 17. The upper end of each of the bolts 16 is flattened, as at 13, to enter the slotted extension of the member 1 at that side. Each flat head is pivotally connected to its extension 12 by means of a transverse pintle or pin 15, thereby permitting of the pivotal movement of the two members 1 and 2 at their hinge-points. The flat head 13 of each member extends somewhat to the rear of the extension 12 in which it is mounted, and beyond the extension, is slotted vertically, as at 14, thus forming loops for the head or cheek-strap 23. For the purpose of gradually and positively spreading the front ends of the speculum, the bolts 16, below the extensions 17 of the lower members 1 are provided with winged-nuts 18.

This completes my invention, the operation of which will be readily understood, but may be briefly described as follows: The device is fitted over the muzzle of the animal much the same as an ordinary halter or

bridle, the mouth-plates being inserted between the incisor-teeth. The head or cheek-strap is then tightened, as are also the nose and chin-strap, if necessary, after which it
5 only remains to run the nuts 18 up upon the bolts which causes the rear ends or extensions 12 and 17 to be compressed and the front ends of the speculum relatively spread or opened, thus prying the jaws of the animal
10 apart and securely holding the mouth open for the carrying on of any necessary operation. If desired, the position of the speculum when in use may be reversed from that shown, so that the winged nuts will be at the top
15 instead of the bottom. I prefer, however, that the nuts should be at the bottom inasmuch as they can be more readily manipulated.

Having described my invention, what I
20 claim is:

1. A veterinary mouth speculum comprising two pairs of members adapted to be located at either side of the horse's mouth and slotted at their forward ends to receive
25 mouth-plates; each pair of members being hinged together near their rear ends and one of said members formed at its rear end with a bore or slot while the rear end of the other member is bifurcated to form ears pierced
30 to receive a pivot-pin; a bolt having a flat head or plate which latter is pivoted between said ears and slotted beyond the pivot to re-

ceive a cheek-strap, the threaded portion of the bolt extending loosely through the bore or slot in the other member; a winged nut 35 threaded on the extended end of the bolt, and a cheek-strap connected to the flat-head of the bolt; together with the mouth plates extending between the pair of members and attached thereto, substantially as herein 40 shown and described.

2. In a veterinary mouth speculum of the character described, the combination with the pivoted members and mouth plates attached thereto, the pivoted members being 45 extended at their rear ends beyond the pivot; of an adjusting-bolt having a flat head or plate at one end and threaded at its other end, the flat head or plate of said bolt being pivoted to the rear end of one of the pivoted 50 members and slotted in the rear of the pivot to receive a strap while the threaded portion of the bolt loosely engages the rear end of the other pivoted member, and a winged nut threaded on the bolt, as herein shown and 55 described.

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

NICHOLAS W. KYLE.

Witnesses:

HARRY A. ARNOLD,
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