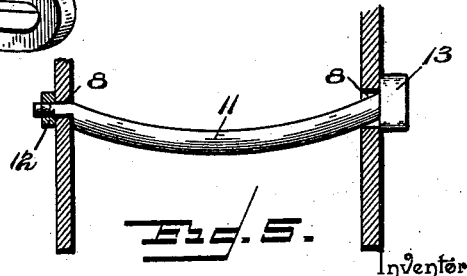
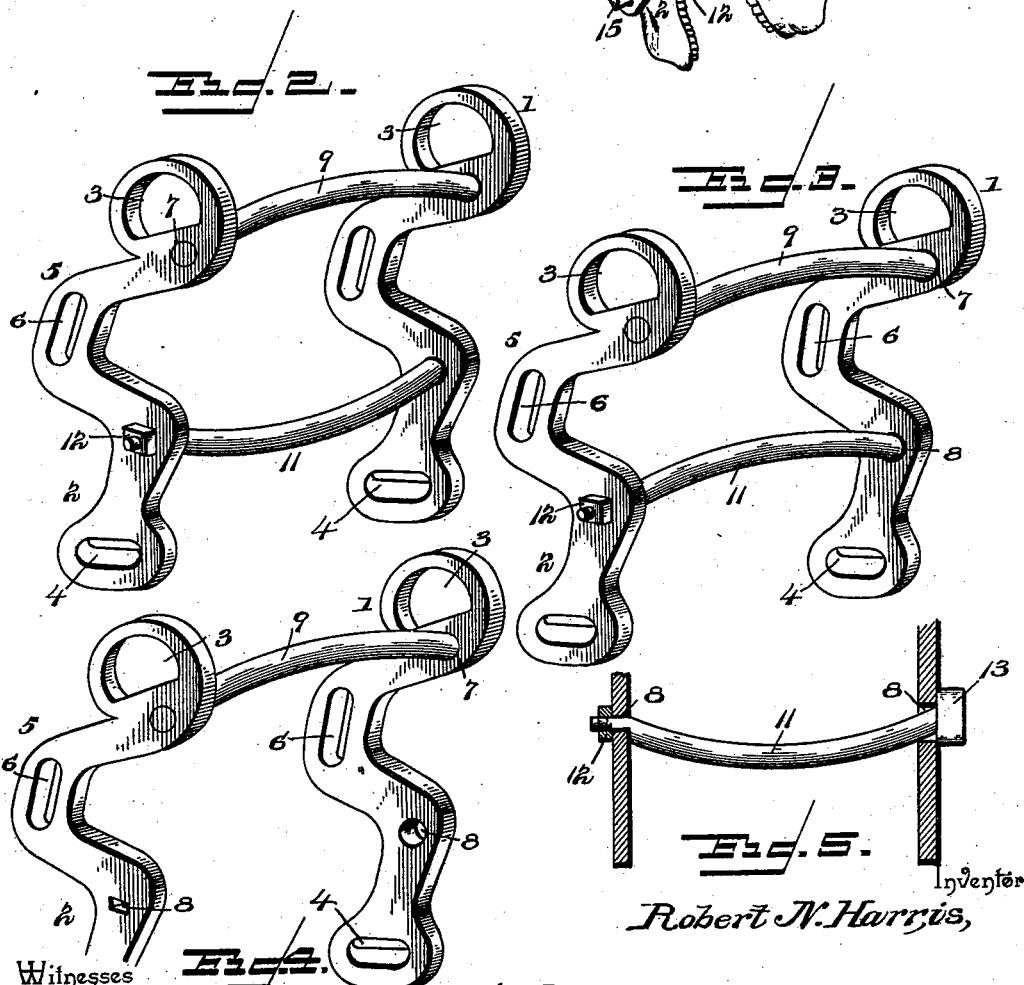
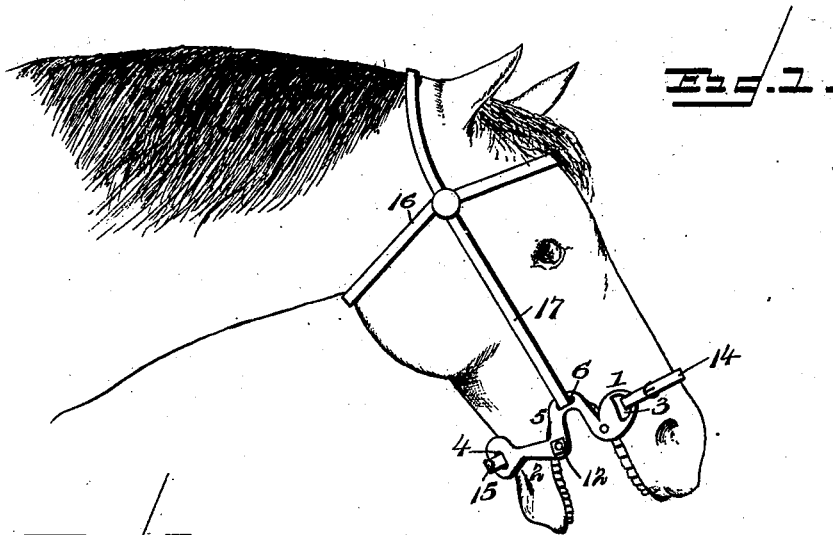


(No Model.)

R. N. HARRIS.
COMBINED BIT AND MOUTH OPENER.

No. 523,811.

Patented July 31, 1894.



Witnesses
C. H. Stewart.

By his Attorneys.

M. S. Duwall.

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UNITED STATES PATENT OFFICE.

ROBERT NELSON HARRIS, OF HICKORY, NORTH CAROLINA.

COMBINED BIT AND MOUTH-OPENER.

SPECIFICATION forming part of Letters Patent No. 523,811, dated July 31, 1894.

Application filed October 30, 1893. Serial No. 489,559. (No model.)

To all whom it may concern:

Be it known that I, ROBERT NELSON HARRIS, a citizen of the United States, residing at Hickory, in the county of Catawba and State of North Carolina, have invented a new and useful Combined Mouth-Opener and Bit, of which the following is a specification.

My invention relates to improvements in bits; the objects in view being to produce a bit that is capable of being employed as an ordinary bit and also as a gag or mouth-opener for horses and other animals, whereby the teeth of the same may receive proper attention, leaving the operator's hands free for working, and also medicines introduced into the throat, or other operations performed.

With these and other objects in view the invention consists in certain features of construction hereinafter specified and particularly pointed out in the claims.

Referring to the drawings:—Figure 1 is a general view of a horse's head, my device being applied thereto and in position to act as a gag or mouth-opener. Fig. 2 is a detail in perspective of the combined bit and gag, the parts being in position to act as the latter. Fig. 3 is a similar view illustrating the manner of adapting the gag for smaller animals. Fig. 4 is a similar view, the device being adapted to serve as an ordinary bit. Fig. 5 is a vertical transverse sectional view through the lower portion of the bit.

Like numerals of reference indicate like parts in all the figures of the drawings.

In practicing my invention I employ opposite side-bars, which consist of the upper and lower extensions 1 and 2, the former terminating in loops 3 and the latter in loops 4. Between these extensions the side-bars are curved or offset rearward, as indicated at 5, and provided with eyes or loops 6. Below the loops 3 and above the loops 4 perforations 7 and 8, respectively, are formed.

The perforations 7 are permanently occupied by an upwardly curved bit-bar 9, and the lower perforations 8 receive loosely and removably the end of a curved bit-bar 11. This curved bit-bar 11 may be secured temporarily in position, and in a manner to be inverted, by any suitable means, in the present instance through the medium of a nut 12 applied at one end of the bar, the remaining

end of said bar being headed as at 13 so as to prevent withdrawal in one direction.

An adjustable nose-strap 14, is located in the upper loops 3, and a similar chin-band 15, is located in the lower loops 4.

An ordinary head-stall 16 is employed in connection with the combined bit and gag, and has its cheek-straps 17 connected to the loops 6 in the usual manner.

When employed as an ordinary bit the bit-bar 9, that which is fixed to the upper ends of the side-bars, is inserted in the mouth, the head-stall being placed upon the head like an ordinary bridle and the nose-band passed about the nose. The driving-lines or reins are substituted for the chin-band 15, the latter being removed. To all appearances the device is now an ordinary driving-bit, and serves the functions of such.

If it be desired to employ the same as a gag or mouth-opener, the lower bit-bar 11, is placed in position, the mouth opened, and the two bars forced between the upper and lower jaws of the animal, the head-stall being employed as before. It will now be seen that the animal's mouth is held open and cannot possibly close by reason of the bars, the device being held in position by the head-stall and nose and chin-straps. Any operation upon the teeth may be carried on, or other operations usually performed may also take place, or, if the animal should be choked, the space between the bars is sufficient to permit the operator to pass his hands between the same and to remove the obstruction. It will be seen that both hands of the operator are free to operate, and no further attention need be given to the device and retention of it in position as the head-stall and nose and chin-straps perform this useful function.

If it be desired to apply the device to smaller animals the same may be successfully accomplished by reversing or inverting the position of the lower bit-bar, so that it curves upward in the same direction as the upper bar. This may be accomplished by removing the nut and withdrawing said lower bar, giving the same a half-turn and reinserting it and applying the nut.

From the foregoing description, it will be seen that I have provided a very simple construction of bit, which is useful as such, and

furthermore may be employed for successfully drenching or giving medicines to the animals, or performing any operation whatever upon the throat or mouth without danger of the gag slipping and interfering therewith.

I do not limit my invention to the precise construction herein described and shown, but hold that I may vary the same to any degree and extent within the knowledge of the skilled mechanic.

Having described my invention, what I claim is—

1. A bit, comprising the opposite side bars provided at their upper ends with loops to receive a nose band and having at their lower ends loops adapted to receive either a chin band or driving reins, said side bars being provided with the intermediate offset portions to receive the cheek straps, an upper permanent bit bar located above the offset portions of the side bars, and a lower bit bar detachably secured to the side bars below the offset portions thereof, and adapted to be re-

moved, whereby the bit is capable of being employed as an ordinary driving bit and as a gag or mouth-opener, substantially as described.

2. In a bit, the combination with the opposite side-bars having the upper and lower extensions 1 and 2 provided with loops 3 and 4 respectively, and between the same having the curved portions 5 having loops 6, of the upper and lower removable and adjustable nose and chin-bands respectively arranged in the loops 3 and 4, the head-stall having its terminals arranged in the loops 6, the upper fixed bit connecting the side-bars, and the lower removable bit arranged in openings in the side-bars, substantially as specified.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

ROBERT NELSON HARRIS.

Witnesses:

WM. P. HUFFMAN,

W. B. SOUTHERLAND.