

UNITED STATES PATENT OFFICE.

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BRIDLE-BIT.

SPECIFICATION forming part of Letters Patent No. 506,244, dated October 10, 1893.

Application filed May 20, 1893. Serial No. 474,973. (No model.)

To all whom it may concern:

Be it known that I, IRAM Z. MERRIAM, a citizen of the United States, residing at White-
water, in the county of Walworth and State of
5 Wisconsin, have invented certain new and
useful Improvements in Head-Gear for Horses,
of which the following is so full, clear, and ex-
act a description as will enable others skilled
in the art to which my invention appertains
10 to make and use the same, reference being
had to the accompanying drawings, in which—

Figure 1 is a perspective view of a bit provided
with my improvement. Fig. 2 is a side
elevation of a horse's head in about a normal
15 position showing the driving rein relaxed.
Fig. 3 is a similar view of a horse's head
"reined up" and with the driving rein taut.
Fig. 4 is a view of a curved metallic bar pass-
ing through the ring of the bit and provided
20 with the stops at either end. Fig. 5 is a view
of the bit provided with a roller at the outer
edge of the large ring.

The object of my invention is to provide a
head gear for horses, mules, &c., by the use
25 of which the animals' heads will be allowed
the greatest freedom and ease when in repose
and at the same time be under perfect control
of the driver when animated by fright
or excitement.

30 The improvement consists of a bit provided
with a pulley or loop or other similar device
through which the link or cable passes, said
link or cable adapted to be secured at one
end to the check rein and at the opposite end
35 to the driving rein, the same to be provided
with suitable stops as will be hereinafter fully
explained.

The invention consists broadly in the pro-
vision of a connecting link between the check
40 rein and the driving rein securing on the in-
stant either perfect freedom and ease for the
animal or an erect stylish head, at the will of
the driver providing a head gear which com-
bines style and comfort alternately at will.

45 For arbitrary and conventional reasons,
however excuseless, it is frequently desirable
to throw a horse's head up, the argument be-
ing generally that it makes the animal look
better and sometimes that it facilitates breath-
50 ing. Humanity however, impels a human be-
ing to make his animal comfortable and one

of the best and easiest ways to do this is to
loosen the check rein or better, to dispense
with it. This, however is so radical a de-
parture from the public's misconception of 55
style, that the practice of dispensing with the
check rein is far from universal. It is my
intention therefore, to provide a device by
the use of which, the animal may at times at
least, rest his neck and drop his head into a 60
natural, and normal position.

A liveryman keeping horses to let, generally
feels obliged to take a horse out "reined up"
in style. He knows that his horse cannot do
a long drive up hill and down dale with com- 65
fort and safety checked up out of all reason.
This device then, will be a boon to livery horses
as the horse will at least be able to drop his
head when standing. It will also be a great
convenience and labor-saving device for the 70
driver as he can "give the animal his head"
at any time at a watering trough or feeding
place without moving from his seat.

The device is applicable to bridles now
in use, whether provided with the overdraw 75
check or side check. With a fairly bred,
fairly broken horse, a gentle pull in either di-
rection will guide the animal without hurting
his mouth. With a thorough-bred, perfectly
broken horse, the slightest touch on the bit 80
at either side, will guide the horse accord-
ingly. With a vicious horse, or horses badly
frightened, a stronger pull is necessary and a
positive pull is sometimes indispensable.

My device provides a head gear and guid- 85
ing apparatus, that will be easy on a gentle
horse, more severe with an indifferent animal,
and hard on an animal who is stubborn or
badly frightened.

In the accompanying drawings, A design- 90
ates the bar of the bit; B, B, the usual rings
at the end of the bit; and C the sheave or roller
secured to the bit.

D is the sliding cable or bar provided with
stops E, E, for a purpose to be hereinafter ex- 95
plained.

F designates a check rein; G a driving rein;
H a water hook; and I, the side pieces of the
bridle.

The cable D may be made of leather, rubber, 100
wire covered with leather or with any appro-
priate covering, or made of any suitable flexi-

ble material or it may be simply a metallic bar, preferably slightly curved from end to end. The exact style of bit and running connection between the bit and the cable may be varied to accommodate the bit for use in various climates and under varying conditions. For instance, to obviate any possible difficulties and imperfections in the action of the bit, as might be the cause in very cold frosty weather, I may use instead of a flexible cable passing through a roller or sheave on the bit bar, a metallic or flexible cable, either one running over a pulley or through a loop back a sufficient distance from the bit bar to prevent its being wet by the vapor from the horse's mouth and the saliva as well, and I may put the roller a sufficient distance from the bit to prevent its being wet when the animal is drinking.

By the provision of a metallic bar running through a metallic loop or roller, the case could hardly be imagined where frost or water would interfere with the operation of the bit enough to prevent its perfect operation. The solid metallic bar also has the advantage of forming a sort of lever which will operate quickly on a hard mouth, which is sometimes a desideratum.

I wish it distinctly understood that I do not limit myself to the exact form of sheave or roller to be used, nor to the material, and shape of the cable; nor do I wish to limit myself to the exact positions shown, of the pulleys or rollers or link connections, with respect to their distance from the bit bar, as these details may be varied at will, without departing from the spirit of my invention and without in any way interfering with its usefulness.

The operation of my device is as follows: The check rein is secured to the upper stop E on the cable D, and the driving rein G is connected with the lower one. The check rein is passed over the water hook H where it may be provided with a loop *a*, to form a rigid connection at the point *h* to prevent the check rein from "running" through the water hook. I do not think the provision of this loop in the check rein absolutely necessary but it may sometimes be found desirable. The driver then takes his position and if he wishes to rein his horse up and drive him off in style, he simply pulls up on the driving rein G until the stops to which the end of the check rein is attached and is drawn down to the roller on the bit, where it will stop, giving the driver a positive pull directly on the bit. When it is desired to let the horse walk or drink, or "have his head" for any other reason, the driver simply loosens the reins G and the horse is free to drop his head at will. The provision of the loop in the check rein, while as I said before, it is not absolutely necessary, prevents any slipping of the check rein, keeps the horse more steady, and helps to make the animal "follow the rein," which is a great desideratum with all

thorough horsemen. For the purpose of controlling a hard puller, the upper limit of the head motion may be extended so that the driver could lift the animal "off his feet." The lower stop of the cable limits the downward movement of the horse's head to an extent sufficient to keep him from getting the lines under his feet and to prevent him from eating grass at the way side, which is frequently both an annoyance and a disadvantage.

I prefer using the device as follows: First arrange for the upper limit of head at a point where it would be "checked up" by the ordinary check rein, then fix the lower limit at a point where the horse on which it is used would naturally hold his head when at rest. The reins might be so constructed that the driving rein and check rein would be continuous and the stops attached at proper points, but as I desire to have my device applicable to ordinary bridles now in use, I have made it applicable to such devices in the manner shown and described.

Having described the objects, uses and advantages of my device, what I believe to be new, and desire to secure by Letters Patent of the United States, and what I therefore claim, is—

1. A driving bit comprising a mouth bar, cheek rings secured thereto, a loop or pulley attached to the cheek rings and an independent link having a stop at either end, said link adapted to pass through the loop or pulley, and adapted to be attached at one end to the check-rein and at the other end to the driving reins, substantially as set forth.

2. A driving bit comprising a mouth bar, cheek rings secured thereto, a loop or pulley attached to the cheek rings and an independent flexible link having a stop at either end, said link adapted to pass through the loop or pulley, and adapted to be attached at one end to the check-rein and at the other end to the driving reins, substantially as and for the purposes set forth.

3. A driving bit comprising a mouth bar, cheek rings secured thereto, a loop or pulley attached to the cheek rings, and an independent metallic link, having a stop at either end, said link adapted to pass through the loop or pulley, and adapted to be attached at one end to the check-rein and at the other end to the driving reins, substantially as and for the purposes set forth.

4. A driving bit comprising a mouth bar, cheek rings secured thereto, a loop or pulley attached to the cheek rings and an independent flexible curved metallic link having a stop at either end, said link adapted to pass through the loop or pulley and adapted to be attached at one end to the check-rein and at the other to the driving reins, substantially as and for the purposes set forth.

5. A driving bit comprising a mouth bar and cheek ring, having loops extending at an

angle to the cheek rings, the passage through
said links being vertical and independent
links having a stop at either end, said links
adapted to pass through the loops and to be
5 attached at one end to the check-rein and at
the other ends to the driving reins, substan-
tially as described.

In testimony whereof I affix my signature in
the presence of two witnesses.

IRAM Z. MERRIAM.

Witnesses:

E. F. THAYER,
C. W. TRATT.