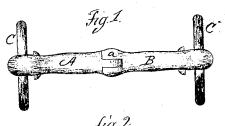
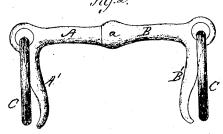
## B.S. Roberts',

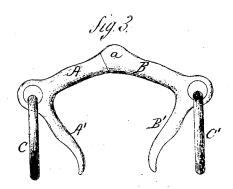
Bridle Bit.

NO. 109,145.

Patented Nov. 8. 1870.







Witnesses, J. J. Liffets H. H. humany Benjamin S. Roberts Inventor By his Attorney. Mont Carl

## United States Patent

BENJAMIN S. ROBERTS, OF NEW HAVEN, CONNECTICUT, ASSIGNOR TO O. B. NORTH & CO., OF SAME PLACE.

Letters Patent No. 109,145, dated November 8, 1870.

## IMPROVEMENT IN BITS FOR HARNESS.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, BENJAMIN S. ROBERTS, of New Haven, in the county of New Haven and State of Connecticut, have invented a new improvement in Single Curb and Snaffle-Bit; and I do hereby declare the following, when taken in connection with the accompanying drawings and letters of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawings constitute part of this specification, and represent in-

Figure 1, a front view;
Figure 2, a top view of the bit when the reins are slack; and in

Figure 3, the same when the reins are drawn taut. This invention relates to an improvement in the construction of bridle-bits, the object being to avoid the use of the uncomfortable curved bit, and at the same time to construct a bit so that in whatever position the horse's head is placed the eurb will act.

It is well known that, in nearly all the bits now in use, if the horse throws his head down against his breast the bit has very slight effect upon his mouth.

By my invention these difficulties are entirely overcome, and it consists in a jointed bit, each part of which, at its outer extremity, has an arm arranged, extending back, so that by drawing upon the reins the bit is turned upon its hinge and the two arms will press hard against the jaw of the horse upon opposite sides.

A is one part, and

B, the other part of a bit, jointed at a, by preference a hinged joint.

C C are the rein-rings, attached to the bit in the

usual manner.

Each of the parts A and B have, at their outer end, respectively, an arm, A' and B', extending back, as

seen in fig. 2, so that when the bit lies straight in the mouth the arms extend back, lying upon the outside of the jaw of the horse. Therefore, when the reins are drawn taut so as to draw upon the bit, as seen in fig. 3, the arms are turned inward, bearing against the jaw of the horse with a pressure according to the strain upon the reins, and this pressure will be alike in whatever position the horse's head may be placed.

By this construction, in ordinary driving the bit is no more uncomfortable to the horse than the common snaffle-bit, and, unlike the common curb or curved bit, it will act equally well in whatever position the horse may place his head, and the pressure of the arms upon the jaw may be made so great that, whatever the nature of the horse, he must succumb to the power of the driver.

I do not wish to be understood as broadly claiming a bit with arms attached thereto near the outer end, as such is not new.

I claim as my invention-

1. A bit in which the joint is constructed in a hingeform, as described, so as to retain the two parts in the same relative position, substantially as herein set forth.

2. A bit in which the two parts A and B are hinged together by a joint of hinge-form, in the manner described, and each of the said parts provided respectively with arms A' and B', formed in one and the same piece with their respective parts of the bit, as herein set forth.

B. S. ROBERTS.

Witnesses:

A. J. TIBBITS, J. H. SHUMWAY.