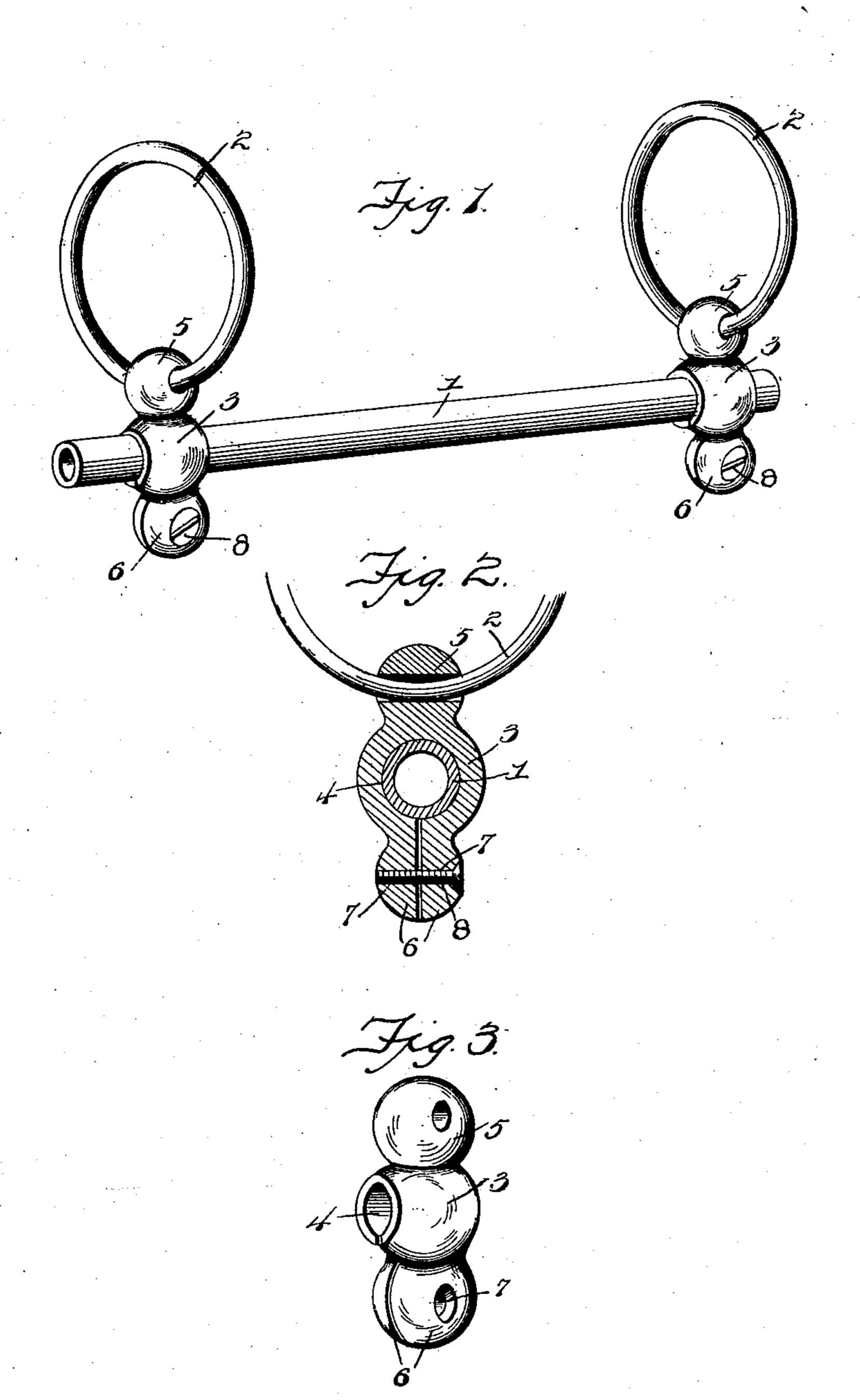
H. S. ANDERSON.
BRIDLE BIT.

APPLICATION FILED DEG. 19, 1898.

NO MODEL



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Harvey S. Anderson Inventor

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## United States Patent Office.

## HARVEY S. ANDERSON, OF HILLSBORO, OHIO:

## BRIDLE-BIT.

SPECIFICATION forming part of Letters Patent No. 754,632, dated March 15, 1904.

Application filed December 19, 1898. Serial No. 699,712. (No model.)

To all whom it may concern:

Be it known that I, HARVEY S. ANDERSON, a citizen of the United States, residing at Hillsboro, in the county of Highland and State of Ohio, have invented a new and useful Bridle-Bit, of which the following is a specification.

This invention relates to bridle-bits of that class in which the mouth-bar or bit-bar is composed of a tubular bar, such as a piece of ordinary galvanized iron pipe, which is open at both ends in order to permit air to circulate freely therethrough; and it has for its object to provide adjustable means for the attachment of the bridle-ring at the ends of said bit-bar.

To this end the invention consists of an attachment or device of approximately globular or spherical form adapted to be mounted upon either end of the bit-bar and provided with approximately spherical extensions, one of which is transversely perforated for the attachment of the bridle-ring and the other of which has a transverse slit or kerf communicating with the opening for the reception of the bit-bar and, furthermore, provided with a transverse perforation for the reception of a clamping-screw. The detailed construction of this device will be hereinafter fully described, and particularly pointed out in the claims.

In the accompanying drawings, Figure 1 is a perspective view of a bridle-bit constructed in accordance with my invention. Fig. 2 is a sectional view taken through the bit-bar and through one of the end attachments of the same. Fig. 3 is a perspective view showing one of the attachments removed from the bit-bar.

Corresponding parts in the several figures are indicated by similar characters of reference.

2 2 are the bit-rings, which are mounted at the inner ends of the bit-bar by means of the attachments comprising the approximately spherical bodies 3, which are provided with longitudinal openings 4, engaging the bit-bar. The body 3 of the attachment is provided at its upper and lower ends with approximately spherical extensions 5 and 6, the former of

which is transversely perforated at right angles to the longitudinal opening in the spherical body 3 for the reception of the bitring. The extension 6 at the lower end of the body is divided longitudinally by means of a 55 cut or kerf communicating with the longitudinal bore 5 of the body. The said lower extension 6 is also provided with a transverse perforation 7, screw-threaded at one end and countersunk at the other end for the reception of a clamping-screw 8, by means of which the halves or sections of said extension may be drawn together to clamp the attachment upon the end of the bit-bar, as will be readily understood.

In practice the attachments, each comprising a body 3, formed with the extensions 5 and 6, may be manufactured of various sizes to enable them to be mounted upon bit-bars of various diameters, as will be readily understood. The attachments are made complete by the addition of rings 2, which may be sprung into the perforations 5 and the clamping-screws 8.

To manufacture the bit according to my invention, it is only necessary to cut off a piece of tubing of the desired length and to clamp the attachments upon the ends thereof, said attachments being adjusted, as will be readily understood, to fit the horse. In this manner 80 an extremely simple and effective bit may be produced at a trifling expense, the attachments being interchangeable, so that a dealer need not carry a very large stock in order to satisfy a demand for bits of various sizes.

Having thus fully described my invention, what I claim is—

1. The combination with a tubular, openended bit-bar, of bridle-attaching means adiustable exteriorly upon said bit-bar

2. The combination with a tubular, openended bit-bar, of two bit-rings connected with the same, and connecting means, each consisting of an approximately spherical body having a longitudinal opening to engage the bit-95 bar and provided with upward and downward approximately spherical extensions, one of said extensions having a transverse perforation at right angles to the longitudinal opening in the spherical body to receive a bit-ring and 100

the other of said extensions having a longitudinal slit or kerf communicating with the opening for the reception of the bit-bar, a transverse perforation the ends of which are coun-5 tersunk and threaded, and a clamping-screw engaging said perforation.

In testimony that I claim the foregoing as

J. Frank Wilson,
R. T. Hough.

my own I have hereto affixed my signature in the presence of two witnesses.

## HARVEY S. ANDERSON. Witnesses: