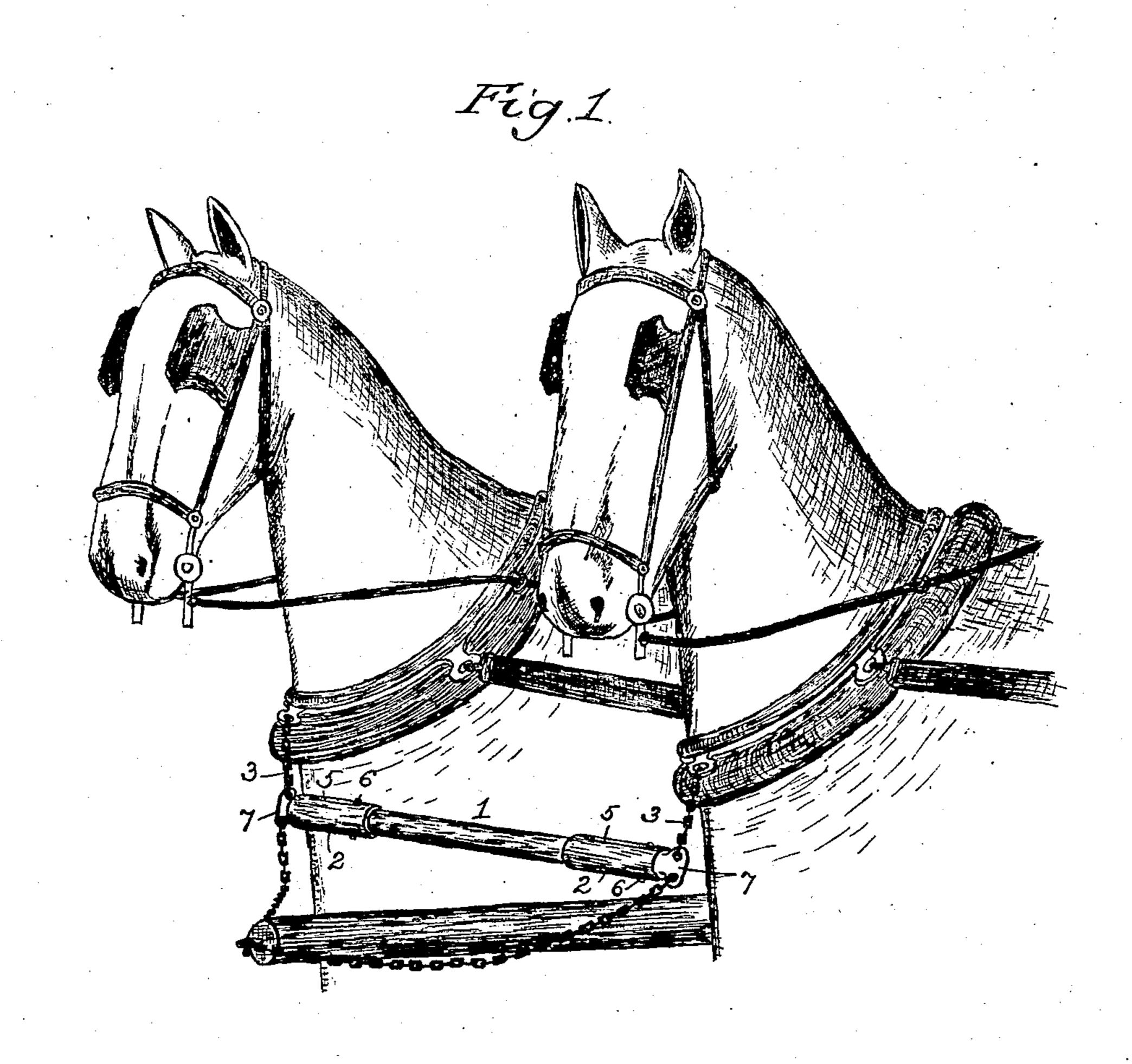
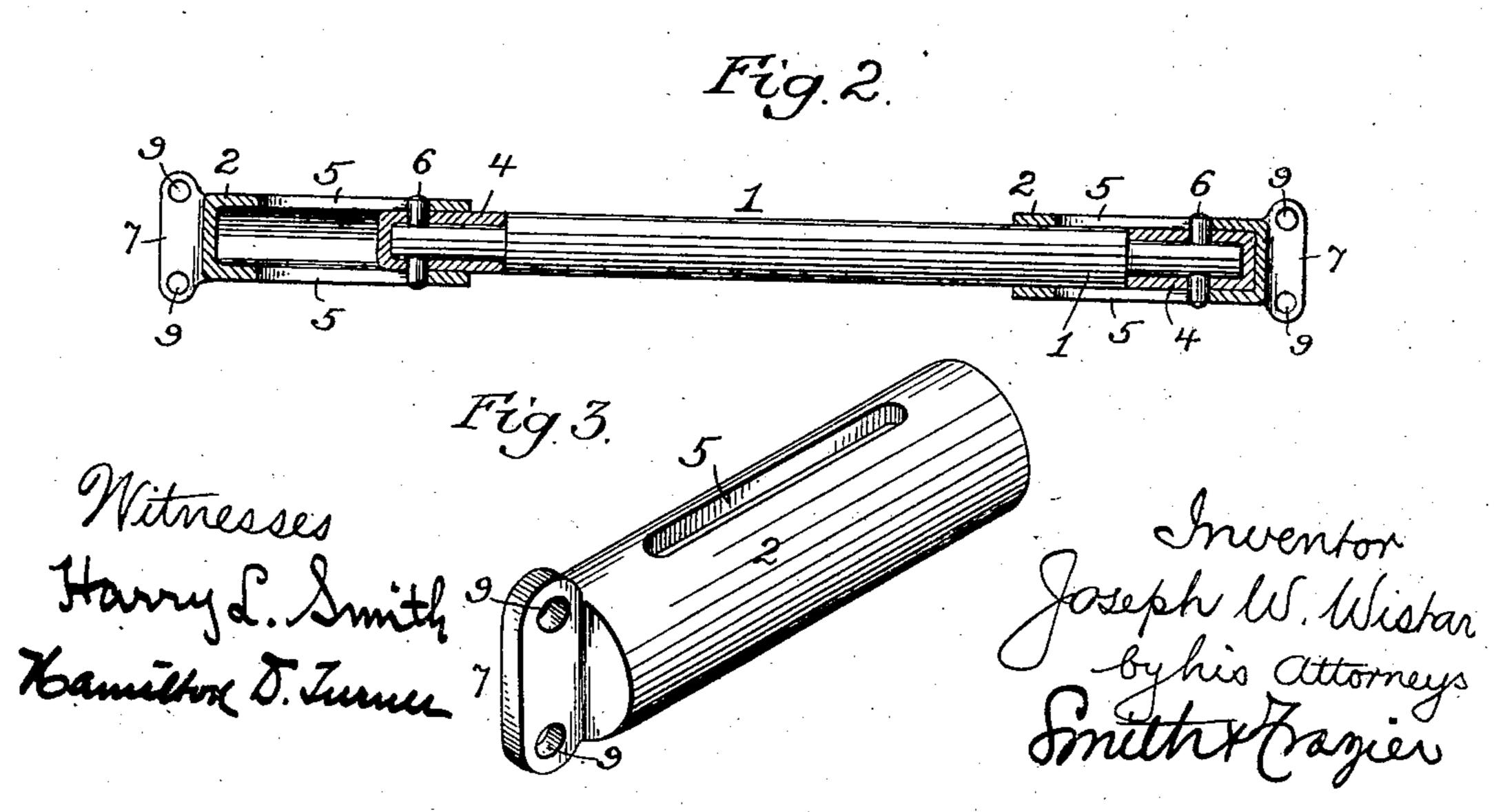
## J. W. WISTAR. BREAST CHAIN SPREADER FOR HARNESS. APPLICATION FILED JAN. 5, 1907.





THE NORRIS PETERS CO., WASHINGTON; D. C.

## UNITED STATES PATENT OFFICE.

JOSEPH W. WISTAR, OF PHILADELPHIA, PENNSYLVANIA.

## BREAST-CHAIN SPREADER FOR HARNESS.

No. 855,270.

Specification of Letters Patent.

Patented May 28, 1907.

Application filed January 5, 1907. Serial No. 350,946.

To all whom it may concern:

Be it known that I, Joseph W. Wistar, a citizen of the United States, residing in Philadelphia, Pennsylvania, have invented cer-5 tain Improvements in Breast-Chain Spreaders for Harness, of which the following is a specification.

The object of my invention is to so construct a breast chain spreader as to relieve 10 either horse from a large part of the strain which would otherwise be caused by a side pull of the other horse, or by side movement of the pole or tongue of the wagon.

This object I attain in the manner herein-15 after set forth, reference being had to the

accompanying drawing, in which:

Figure 1 is a view illustrating the method | of application of my improved breast chain spreader; Fig. 2 is a view of the spreader 20 partly in elevation and partly in section, and Fig. 3 is a perspective view of one of the end members of the spreader.

With the ordinary breast chains leading from the end of the tongue or pole to the col-25 lars of the horses of a double team, strain, caused by the side pull of one of the horses or by side movements of the tongue or pole, is transmitted to the other horse without any relief, nor is this condition materially im-30 proved by the interposition of a rigid spreader between the breast chains.

In carrying out my invention therefore I provide the spreader bar 1 with freely sliding ends 2, to which the breast chains 3 are at-35 tached, so that lateral pull upon either breast chain will be compensated for by the sliding movement of the end sleeve of the bar to which it is attached without causing lateral movement of the entire bar and correspond-40 ing strain upon the opposite breast chain, so

that, while both horses can act as effectively as usual in holding back the load, each horse is measurably free from side strain upon the collar caused by side movement of the other, or of the pole or tongue.

The bar 1 is usually composed of wood and is preferably strengthened at each end by means of a metallic cap or ferrule 4, and the sliding end sleeve 2 is slotted, as shown at 5 in Fig. 2, for the reception of the ends of a 50 pin 6 which passes through the capped or ferruled end of the bar 1, and serves to prevent removal of the end sleeve 2 therefrom while permitting free sliding movement of said sleeve within the limits of the slot. Each of 55 the sliding end sleeves has a projecting flange or plate 7 with opening 9 at each end for the reception of the breast chain connections.

I claim:— 1. A breast chain spreader freely movable 60 with the chains, and having freely sliding and disconnected ends to which said chains are attached.

2. A breast chain spreader consisting of a bar having sliding end sleeves slotted for en- 65 gagement with stop pins carried by the end portions of the bar.

3. A breast chain spreader consisting of a bar having sliding end sleeves, with projecting flanges perforated at each end, and stops 7° for limiting the sliding movements of the sleeves.

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

JOSEPH W. WISTAR.

Witnesses:

Hamilton D. Turner, KATE A. BEADLE.