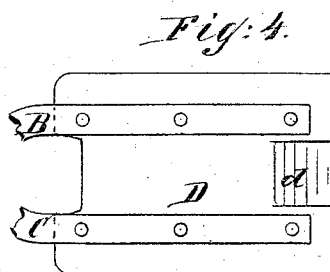
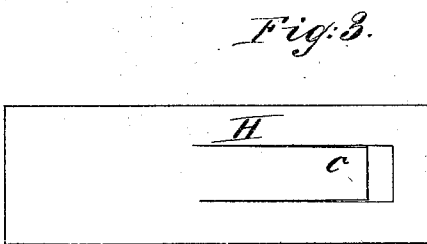
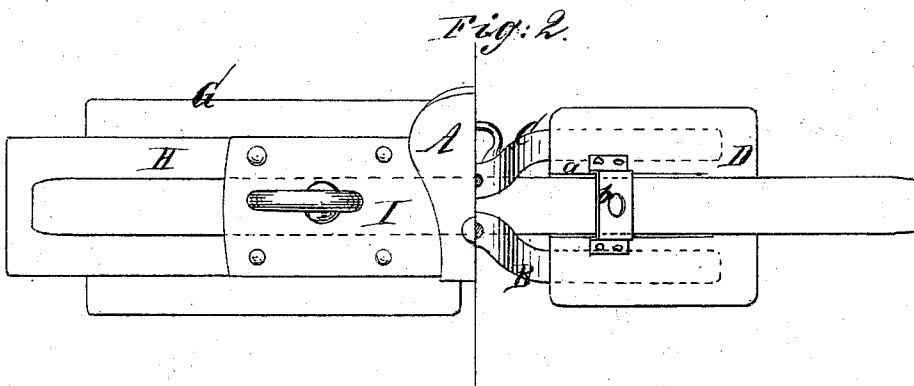
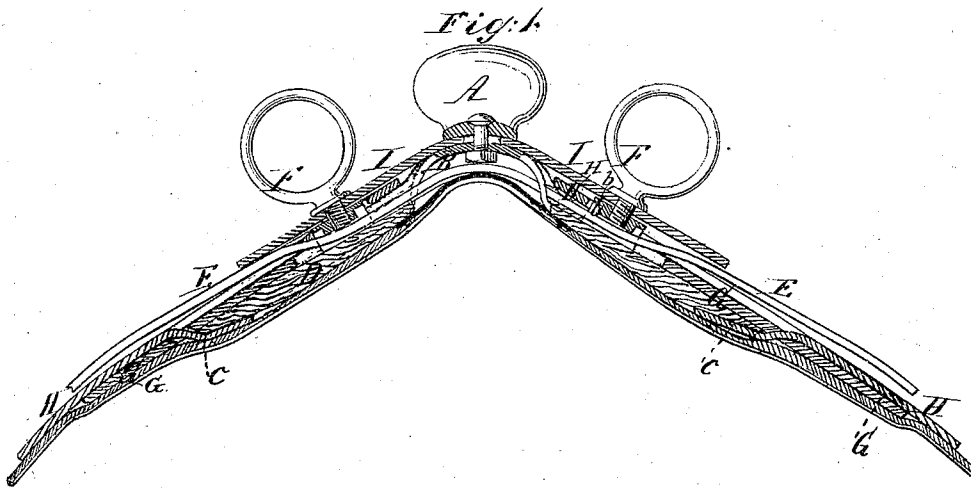


J. F. KNORR.
Harness-Saddles.

No. 147,408.

Patented Feb. 10, 1874.



Witnesses:
Ernst Bilhuter.
Chas. Wahlen.

Inventor:
Jacob F. Knorr
per
V. S. L. Haupt
Att.

UNITED STATES PATENT OFFICE.

JACOB F. KNORR, OF NEW YORK, N. Y.

IMPROVEMENT IN HARNESS-SADDLES.

Specification forming part of Letters Patent No. **147,408**, dated February 10, 1874; application filed June 19, 1873.

To all whom it may concern:

Be it known that I, JACOB F. KNORR, of the city, county, and State of New York, have invented a new and useful Improvement in Harness-Saddles; and I do hereby declare the following to be a full, clear, and exact description thereof, which will enable those skilled in the art to make and use the same, reference being had to the accompanying drawing forming part of this specification, in which drawing—

Figure 1 represents a longitudinal vertical section of my saddle. Fig. 2 is a plan or top view of the same. Fig. 3 is an inverted plan of the same. Fig. 4 is a plan of one of the flaps detached. Fig. 5 is an inverted plan of one of the side bars.

Similar letters indicate corresponding parts.

This invention relates to a harness-saddle, the gullet and crupper-plate of which are made in two separate pieces, the gullet being entirely of iron, and made separate from the other parts of the tree. The gullet and crupper-plate form the supports of the side bars, which are situated beneath the housing, said side bars being made of such a width that they produce a good bearing-surface for the housing, and that they bear comfortably upon the horse. Each of the side bars is provided with a channel or groove on its upper surface, and with another channel or groove on its lower surface, the upper channel forming a guide for the back-band, while the flap which covers the side bar is cut out with a tongue that is turned down into the lower channel or groove, whereby said flap is firmly retained in position and an even bearing-surface for the housing is obtained, and, at the same time, the back-band is free to slide in the saddle.

In the drawing, the letter A designates the seat of my saddle, to the under side of which are firmly secured the gullet B and the crupper-loop plate C. The gullet and crupper-plate are made entirely separate from each other, and both of iron, and they serve to support the side bars D, and being separate, they can be adapted to side bars of different widths. These side bars are made of wood, so that they are as light as possible, and the gullet and crupper-plate are let into their lower surfaces and secured to them by rivets or other suitable means. In the upper surface of each

of the side bars D is a channel or groove, *a*, which is deepest near the upper edge of the side bar, and across this channel or groove extends a bridge, *b*, which, together with said groove, forms the guide for the back-band E, and which is tapped to form the seat of the terret F. On the side bars D rests the housing G, so that the side bars are entirely concealed by the housing. By this arrangement I am enabled to make the side bars of sufficient width to obtain a comfortable bearing for the saddle on the back of the horse, and at the same time the saddle preserves a neat and light appearance. The housing is made in sections, which terminate under the seat A. On the housing rest the flaps H, each of which is cut out with a tongue, *c*, that catches in a vanishing channel or groove, *d*, Fig. 4, in the under surface of the side bar, the housing being cut away to allow said tongue to pass. By this tongue the flap is retained, and at the same time room is produced for the back-band to pass, since by cutting out the tongue a channel is formed in the flap, which forms a continuation of the upper groove *a* in the side bar. With the flaps H are connected the jockeys I, in the usual manner.

By this arrangement I am enabled to increase the width of the side bars to any desired extent, without giving to the saddle the appearance of clumsiness, and a durable and convenient saddle can be produced at a comparatively small cost.

What I claim as new, and desire to secure by Letters Patent, is—

1. The gullet B, made entirely of iron and separate from any other part of the tree, substantially as described.

2. The gullet B, made separate from the crupper-plate C, in combination with said plate and with the seat A and side bars D, constructed and arranged substantially as described.

3. The side bars D, provided with the upper and lower channels or grooves *a d*, in combination with the flaps H, having a tongue, *c*, applied in the manner substantially as described.

J. F. KNORR.

Witnesses:

W. HAUFF,

E. F. KASTENHUBER.