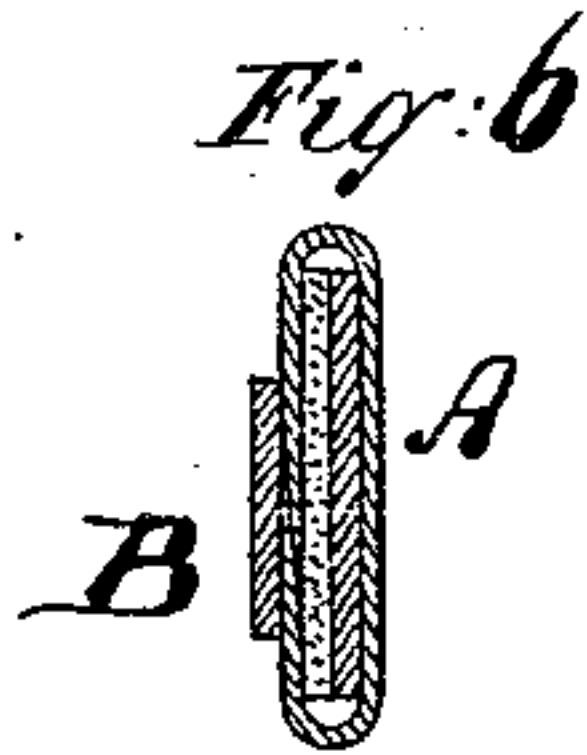
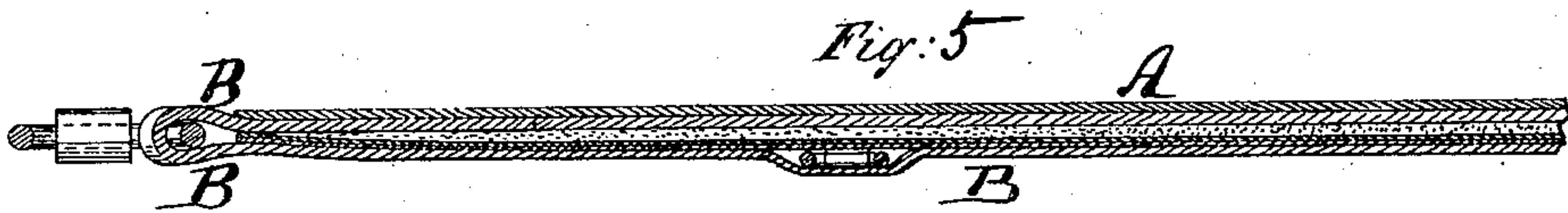
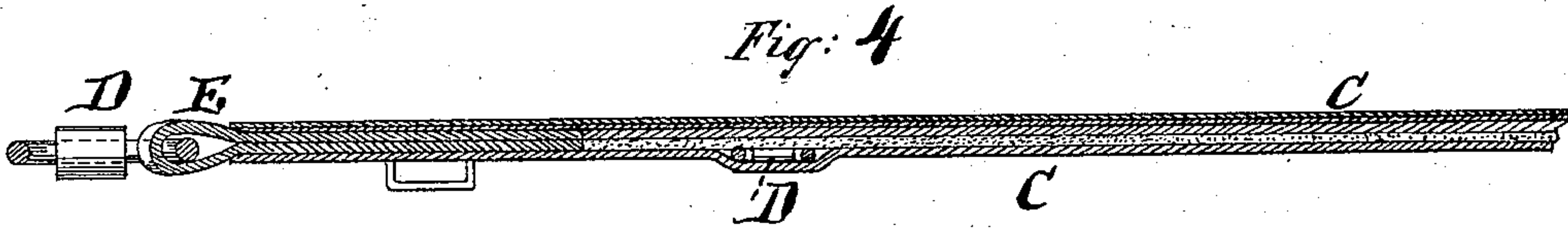
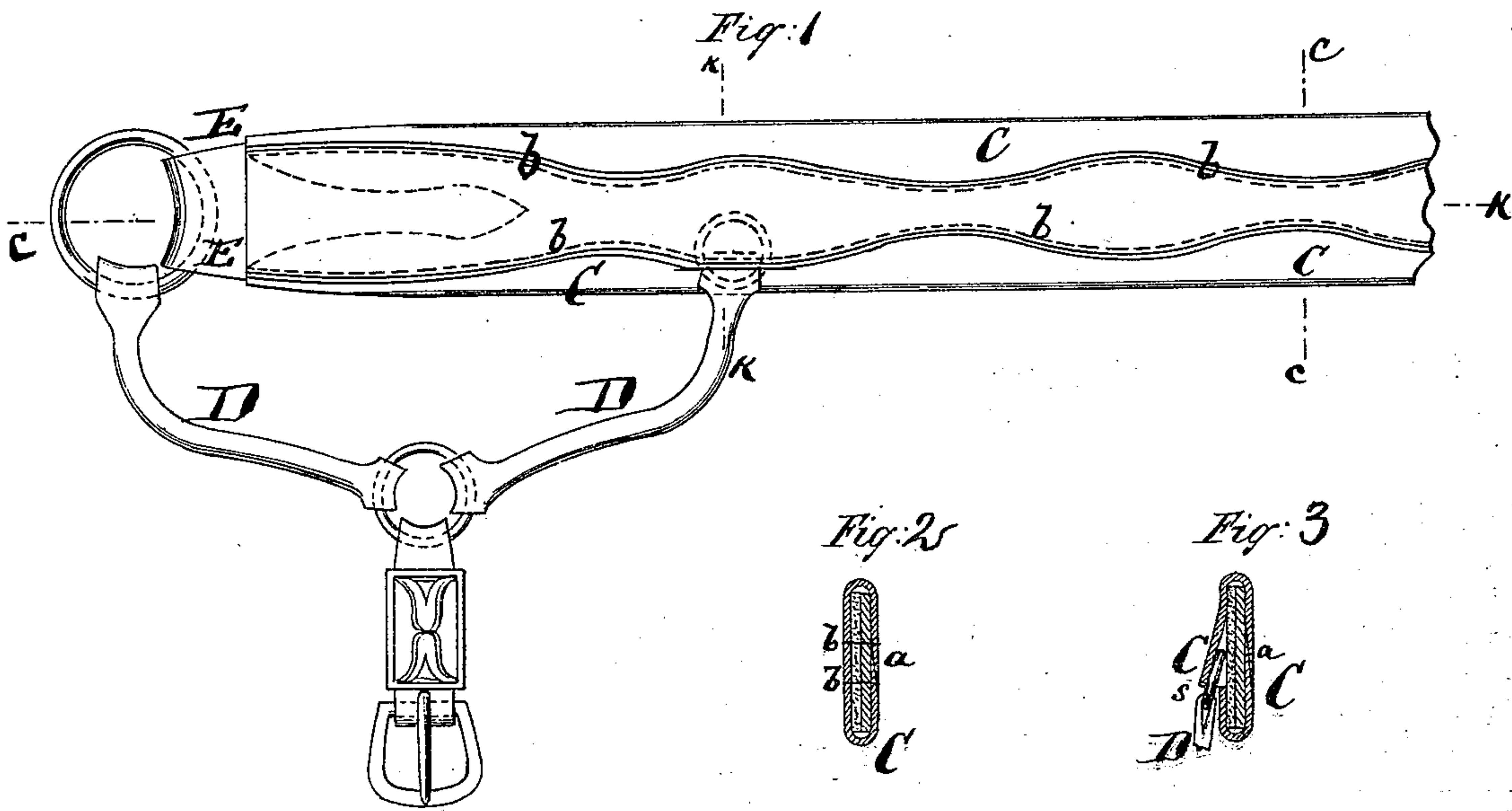


E. F. BECK.
Harness Folds.

No. 153,739.

Patented Aug. 4, 1874.



Witnesses:

Cha. Raettig
E. W. Erb

Inventor:

Ernst F. Beck
by his attorney
A. W. Briesen

UNITED STATES PATENT OFFICE.

ERNST F. BECK, OF NEWARK, NEW JERSEY.

IMPROVEMENT IN HARNESS-FOLDS.

Specification forming part of Letters Patent No. **153,739**, dated August 4, 1874; application filed April 9, 1874.

To all whom it may concern:

Be it known that I, ERNST F. BECK, of Newark, in the county of Essex and State of New Jersey, have invented a new Improvement in Harness-Folds, of which the following is a specification:

Figure 1 is a face view of a breeching having my improved harness-fold. Fig. 2 is a cross-section of the same on the line *c c*, Fig. 1; Fig. 3, a cross-section on the line *k k*, Fig. 1; Fig. 4, a longitudinal section thereof on the line *c k*, Fig. 1; Fig. 5, a longitudinal section of a breeching of the ordinary construction as the same is at present manufactured; and Fig. 6, a cross-section of the same.

Similar letters of reference indicate corresponding parts in all the figures.

This invention relates to a new mode of constructing harness-folds for breechings, girths, breast-collars, and neck-straps, and all parts of the harness where retaining-straps, with rings or buckles, have to be inserted.

Originally such harness folds were made of two pieces of leather, of which the main piece was folded double, with the joint invariably on the outer side. For the more important parts of the harness, where great strength was required, it was necessary to cover these folds so as to conceal them, and to prevent the contiguous edges of the leather from spreading apart by coming in contact with other articles, and such folds were always made as shown in Figs. 5 and 6—that is to say, the main piece of leather A was folded and joined on the outside, and the joint covered by another piece of leather, B, which extended along the outside of the piece from end to end, and was then turned inwardly, its ends

being concealed between the folds of the leather A, as shown in Fig. 5.

The object of my invention is to produce a fold from a single piece of leather without the use of the outside piece B. For this purpose my invention consists in forming the joint on the inner side of the leather, and inserting within this fold the retaining-strap which holds the rings.

In the drawings, C represents the main piece of my harness-fold. It is shown as one end of a breeching, and is made chiefly of a piece of leather, which is folded, as in Fig. 2, with its joint *a* formed on the inner side, and which is stretched, as at *b b*, in order that the joint may be secured. In this manner—*i. e.*, by forming the joint on the inside—the additional piece of leather, B, which has been used, is dispensed with, and a lighter article, possessed of the requisite strength, is produced in its stead. D is the breeching-tug, which is inserted in an incision in the fold, where it is secured by stitching or rivets. E is the retaining-strap. It is inserted within the fold, as at F, where it is secured by the same series of stitching, which serves to secure the joint itself.

The fold may contain a suitable filling of cloth, leather, or other material.

I claim as my invention—

A harness-fold, in which the seam is formed on the inside, as at *a*, having the retaining-strap E inserted within it, as at F, substantially as and for the purpose hereinbefore described and set forth.

Witnesses:

E. F. BECK.

A. V. BRIESEN,
E. C. WEBB.