

W. J. THORN.
Horse-Collar.

No. 164,342.

Patented June 8, 1875.

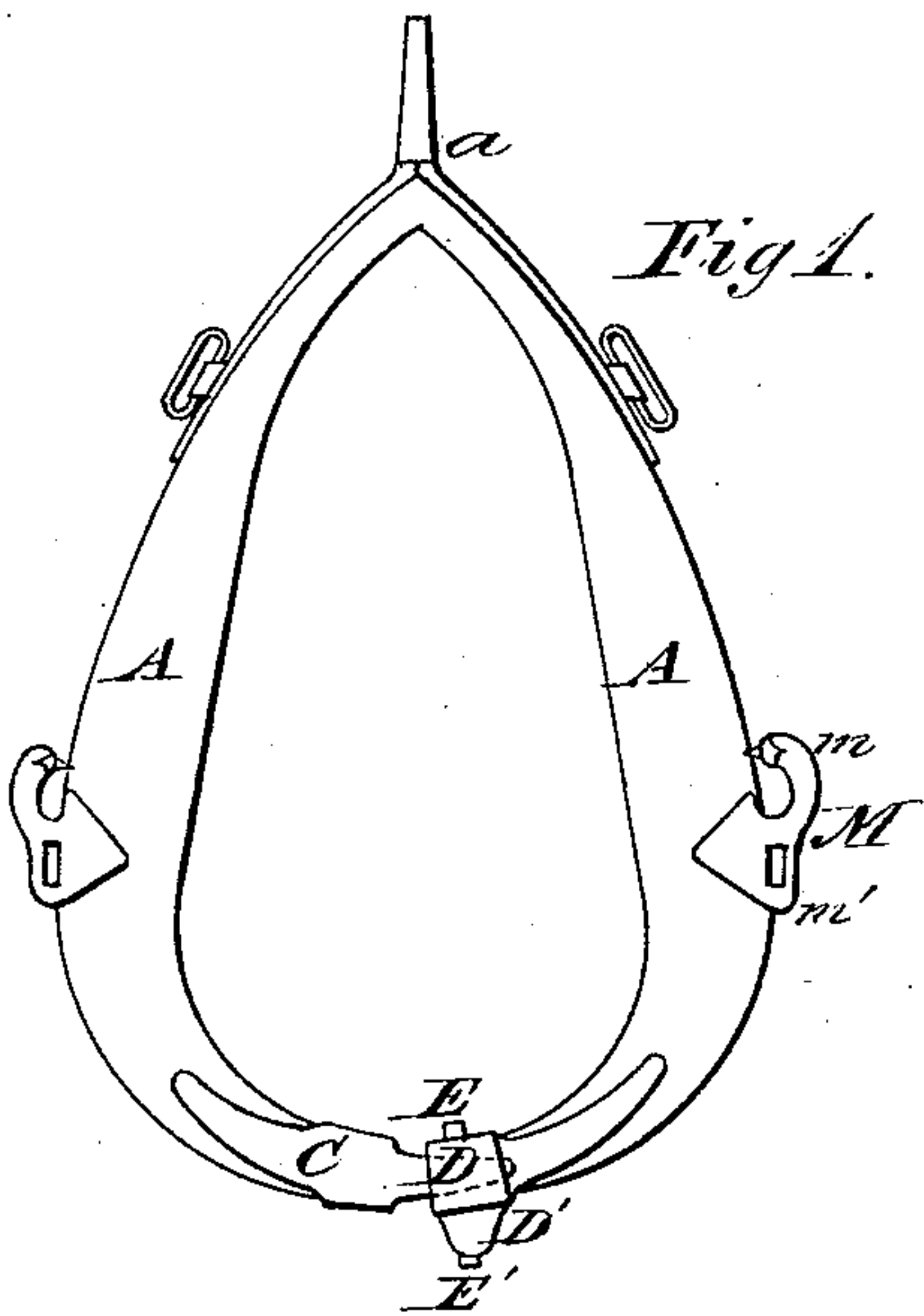


Fig. 1.

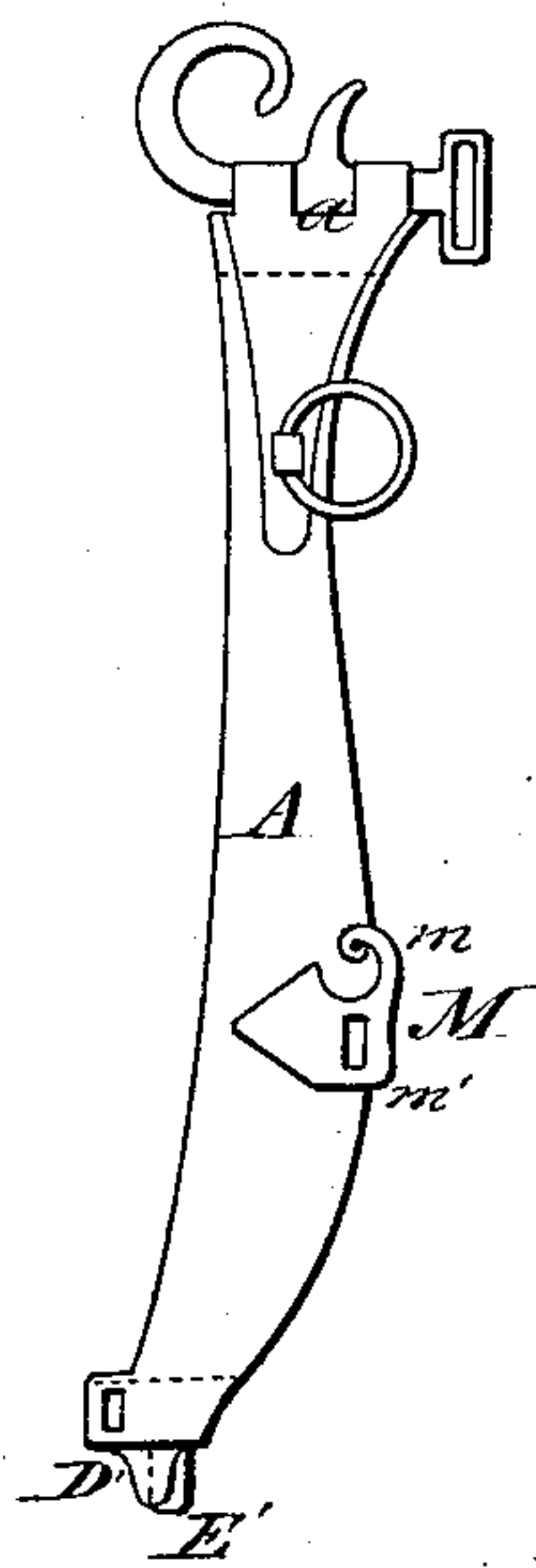


Fig. 2.

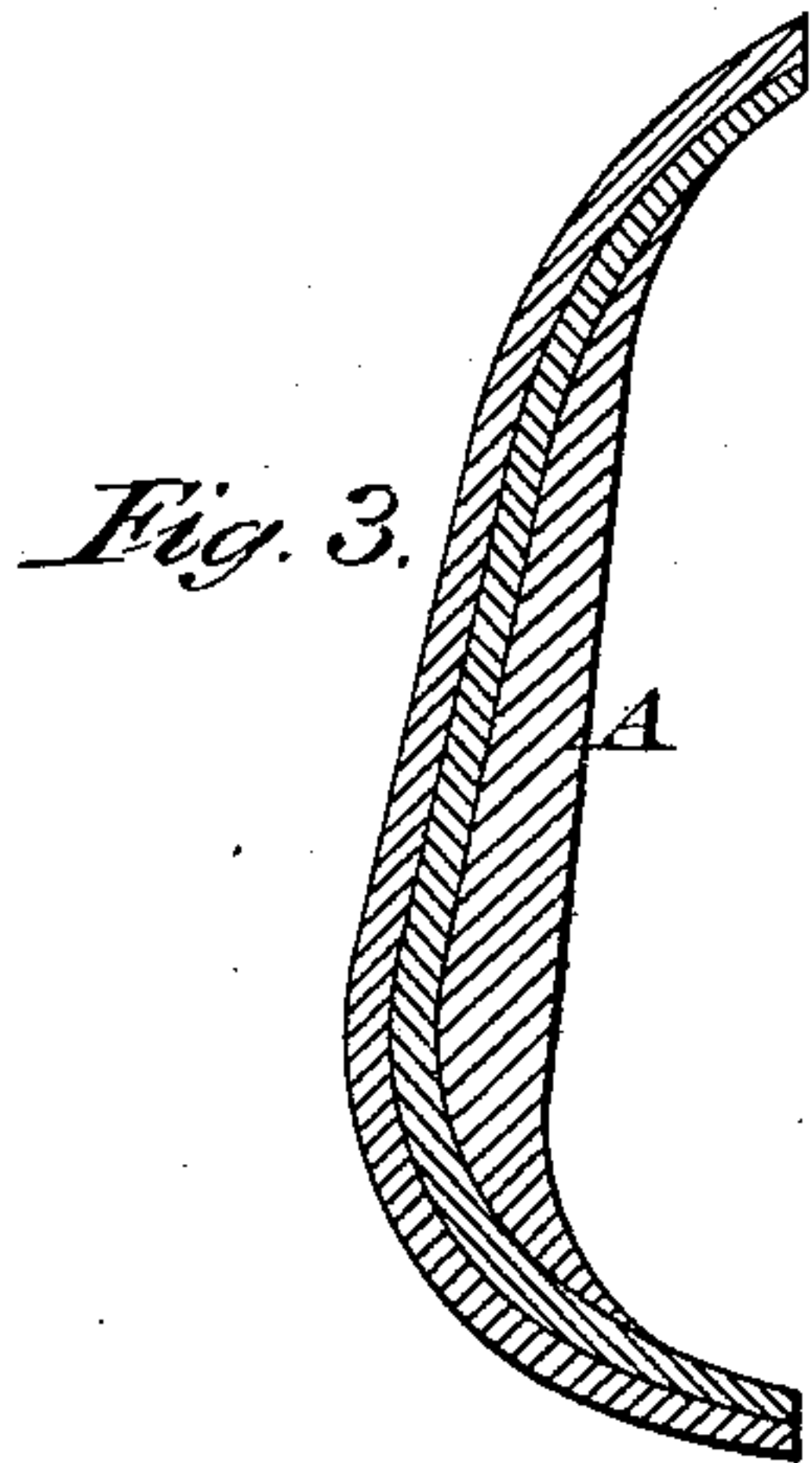


Fig. 3.

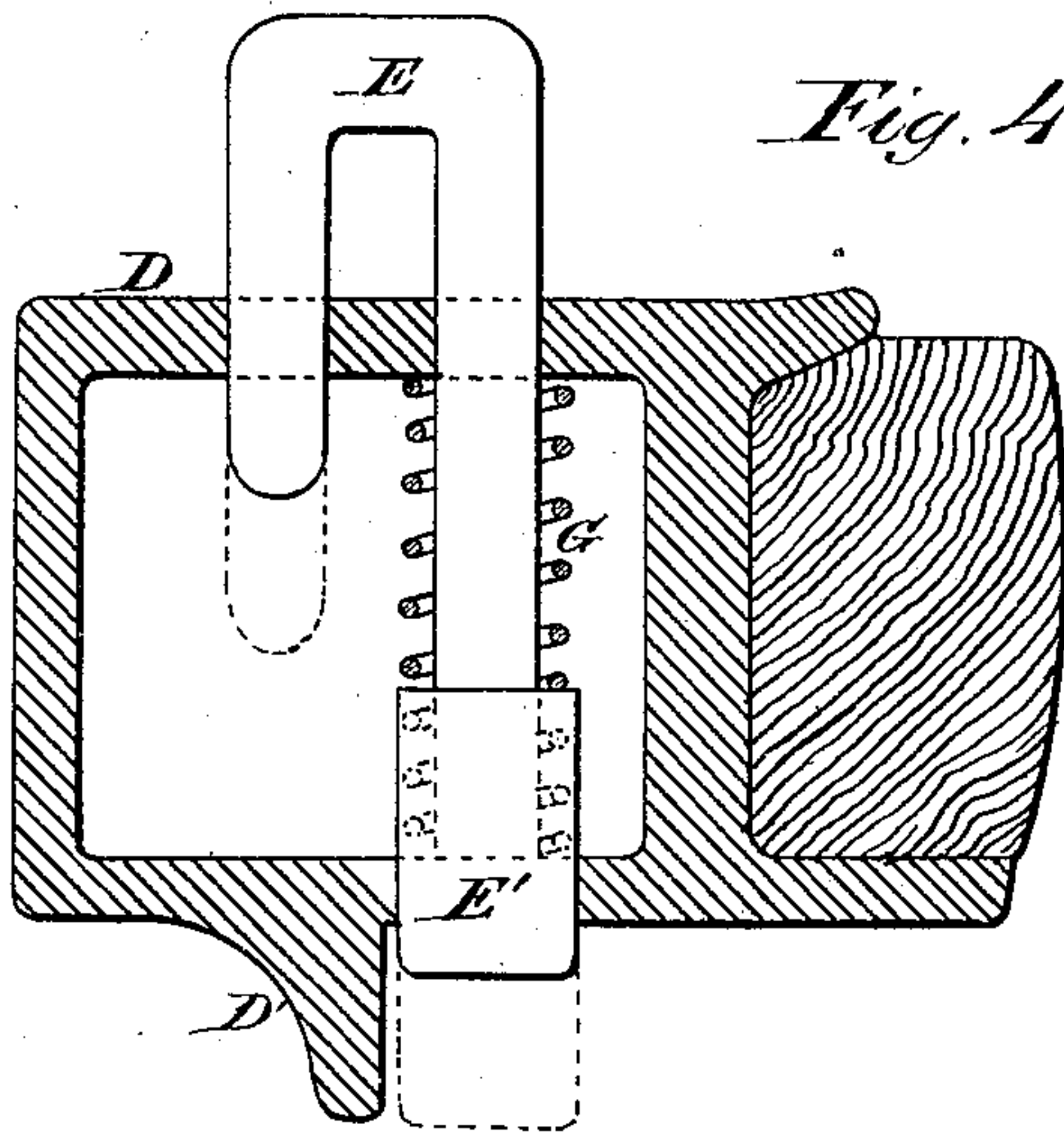


Fig. 4.

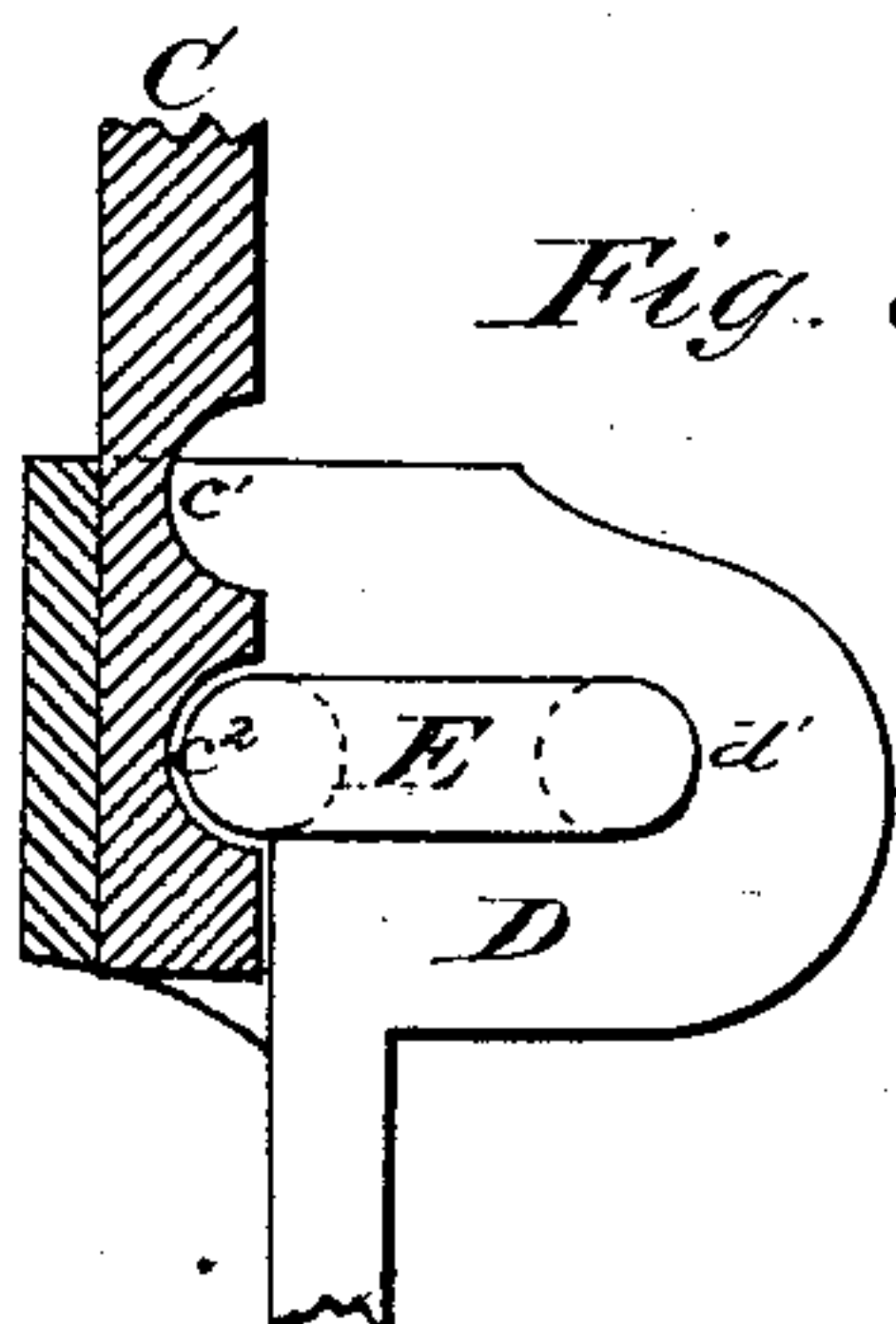


Fig. 5.

Witnesses:

W. C. Dey.

E. Polkman.

Inventor.

W. J. Thorn.

by his attorney

J. D. Stetson

UNITED STATES PATENT OFFICE.

WILLIAM J. THORN, OF WESTBROOK, MAINE.

IMPROVEMENT IN HORSE-COLLARS.

Specification forming part of Letters Patent No. **164,342**, dated June 8, 1875; application filed November 18, 1874.

To all whom it may concern:

Be it known that I, WILLIAM J. THORN, of Westbrook, Cumberland county, Maine, have invented certain Improvements relating to Horse-Collars, of which the following is a specification:

The invention consists in peculiarities pertaining to the hook or fastening for the traces and breeching. It also consists in peculiarities in the fastening of the two parts of the collar together. The breeching or the pole-strap may be secured to an eye in the same piece of metal as forms the hook by which the traces are attached. I employ an inverted U-shaped bolt, with arms of unequal length. By pushing up the long arm against the force of the spring the short arm withdraws and disengages the parts. A shield is extended down alongside of the projecting end of the long arm to prevent the bolt being pressed up by accident.

The following is a description of what I consider the best means of carrying out the invention.

The accompanying drawings form a part of this specification.

Figure 1 is a front view, and Fig. 2 a side elevation, of the collar complete. Fig. 3 represents the mode of applying together the several pieces of wood to form one of the halves. Figs. 4 and 5 are on a larger scale. Fig. 4 is a cross-section through the fastening at the bottom of the collar. Fig. 5 is a horizontal section through a portion thereof, showing the provisions for varying the size of the collar.

Similar letters indicate corresponding parts.

The body of the collar is made of rigid, or approximately rigid, material. Each half is preferably constructed by providing two or more strips of wood of moderate thickness, and after steaming them and bending to the proper form, gluing them together and upon a rigid piece fitted on the inner or hollow side, and also secured by bolt or rivets. The blank thus formed is afterward rounded to the proper shape, and properly hinged together at the top. These parts are marked A A. The hinge at the top is marked *a*, and the metallic pieces secured thereto at the bottom are marked, respectively, C and D. The part C is recessed on one side with two or more recesses, *c*¹ *c*².

The part D is adapted to receive the part C within itself, and has a single recess, *d'*. When the collar is applied on the neck of a horse, and the part C is inserted into the part D to the proper extent to bring the recess *d'* to coincide with either the recess *c*¹ or *c*², a sufficient cavity is provided to receive the short arm of the inverted U-shaped bolt, marked E. The long arm of this bolt is mounted and guided in the part D, and is equipped with the head E' on the lower end of the long arm, which receives the force of the coiled spring G, housed within the arm D, and which tends to depress the bolt E, and force its head E' to protrude considerably below the bottom of the collar. A shield, D', extends downward alongside of and partially inclosing the head E'. M is a metallic forging or casting, having a wide head upon a hook, *m*, adapted to receive a long eye on a trace, (not represented,) and to prevent its becoming disengaged by any accident. It can only be disengaged by being carefully turned into a certain position, which is very different from that which it is likely to assume when it is in use. Below it is a rectangular eye, *m'*, adapted to serve as a fastening for the breeching-strap or for the pole-strap; or this eye may serve simply as a guide for the breeching-strap, the wide eye *m'* being smoothly finished, and the breeching-strap being led through it to the pole or to the cross-yoke or evener, to which the pole-strap is connected. In case the eye *m'* is used for the pole-strap alone, the breeching may be buckled to the tugs or traces, as is frequently practiced. I will, however, in future refer to this broad rectangular eye *m'* as simply an eye for the breeching, the other uses being understood. This fastening M is firmly secured by screw-bolts or otherwise to the wood A of the collar. The fastening C D E formed in the several notches *c*¹ *c*² allows the collar to be very easily engaged and disengaged. Its fastening is very secure, and it may be made to fit upon two widely differing sizes of necks. By making more of the cavities *c*¹ *c*² a greater range of sizes may be obtained.

To open the collar, the thumb is applied against the projecting head E', and it is pushed upward within or alongside of the shield D' until the short arm of the bolt is detached from

the part C. Then the collar may be opened and applied upon the animal, and a reversing of the detaching process causes it to be again engaged.

The spring G keeps the bolt E constantly down in a locking position, except when it is forcibly pressed upward. The shield D' prevents it from being affected by any blow or chance pressure against any object.

The tugs or traces (not represented) may be connected and disconnected with little labor from the hooks M, while they remain securely engaged so long as may be desired.

The breeching-strap (not represented) fastened to the same iron by means of the eye *m'* promotes the simplicity of the construction. It avoids the necessity for the multiplication of irons and attachments.

My collar may be prepared with any desired gutting or padding. It may be decorated and fitted with any terrets.

I claim as my invention—

1. The U-shaped bolt E, with unequal arms, in combination with the spring G, and parts C D recessed to receive it, substantially as herein specified.

2. The shield D', on the part D, arranged, as shown, relatively to the bolt E and spring G, for the purposes specified.

In testimony whereof I have hereunto set my hand this 16th day of November, 1874, in the presence of two subscribing witnesses.

WILLIAM J. THORN.

Witnesses:

W. C. DEY,

M. A. VAN NAMEE.