

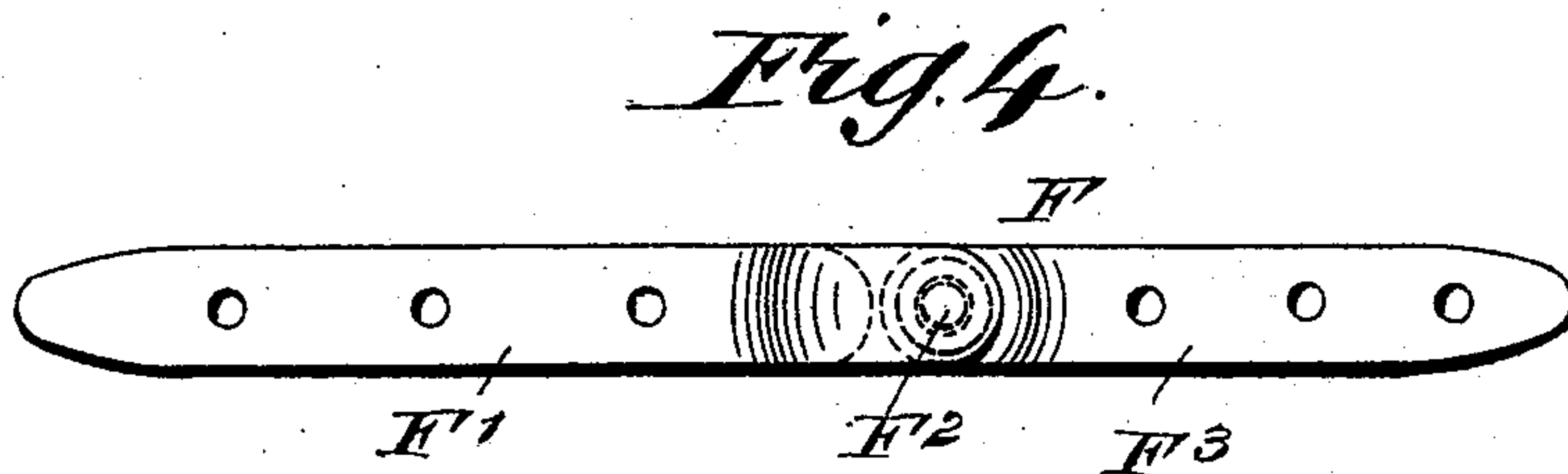
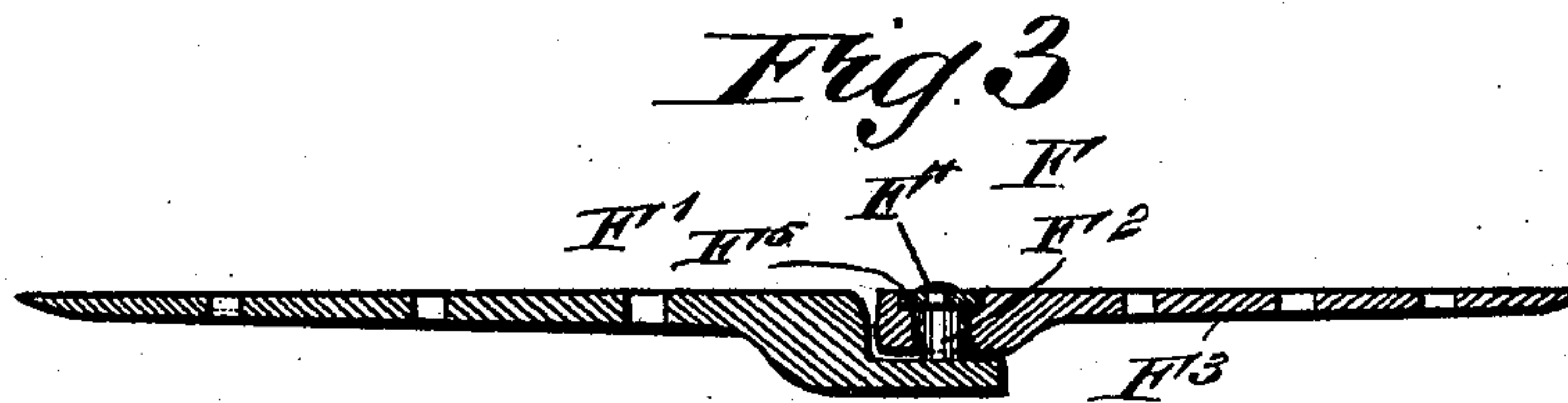
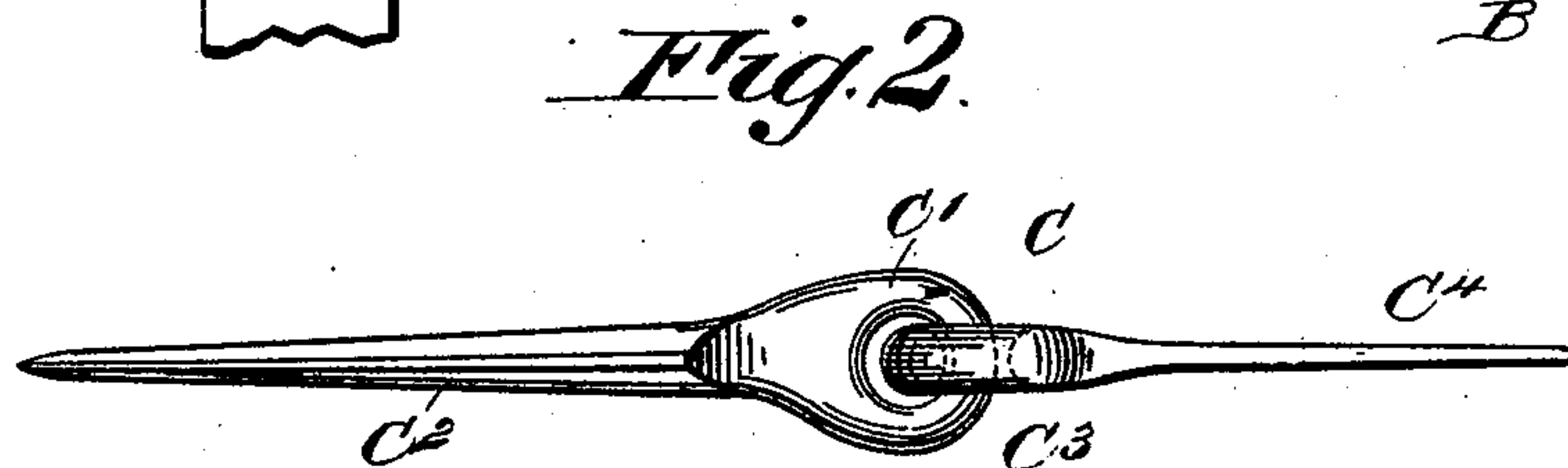
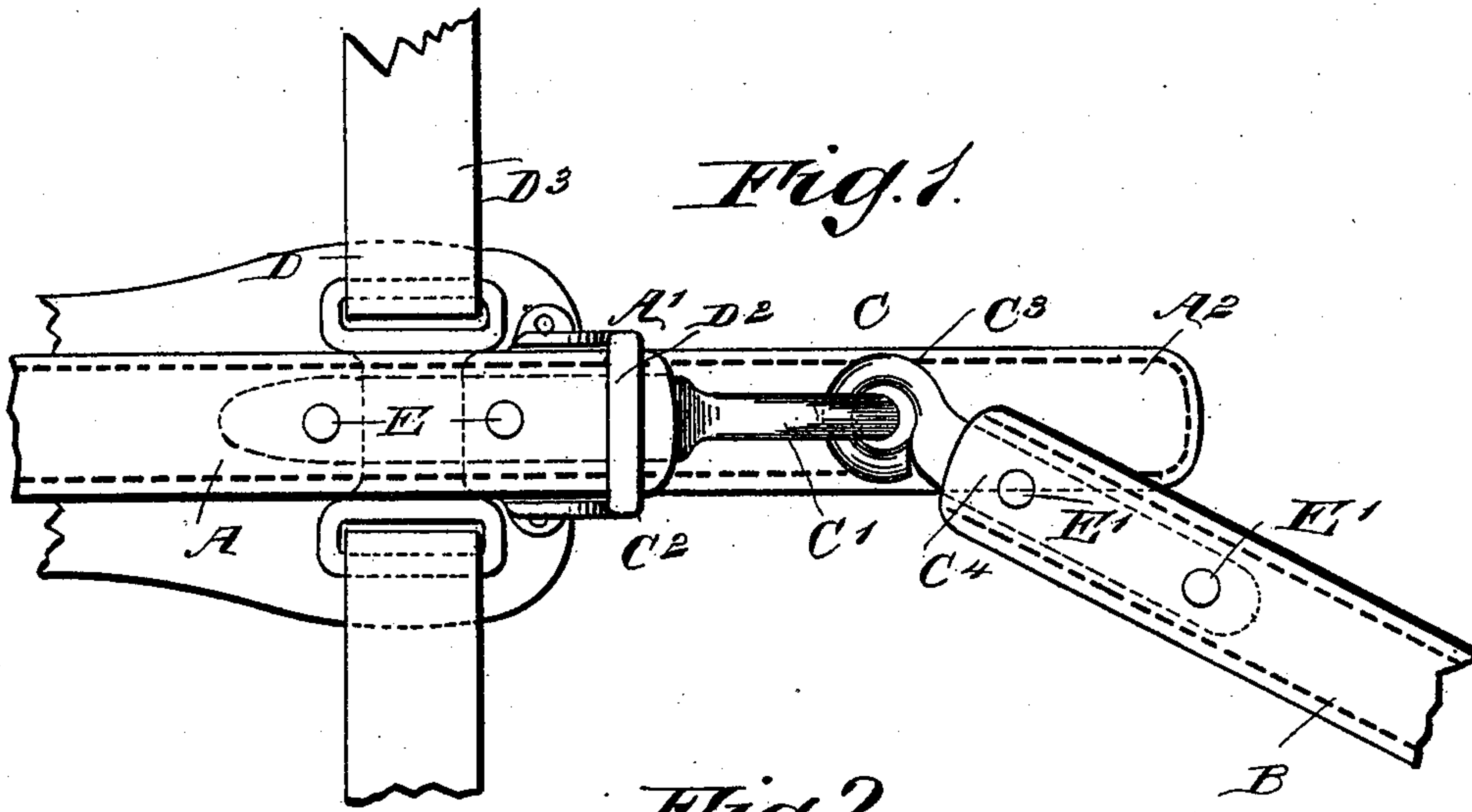
(No Model.)

2 Sheets—Sheet 1.

G. S. DUFFIN.  
TRACE.

No. 528,771.

Patented Nov. 6, 1894.



WITNESSES:

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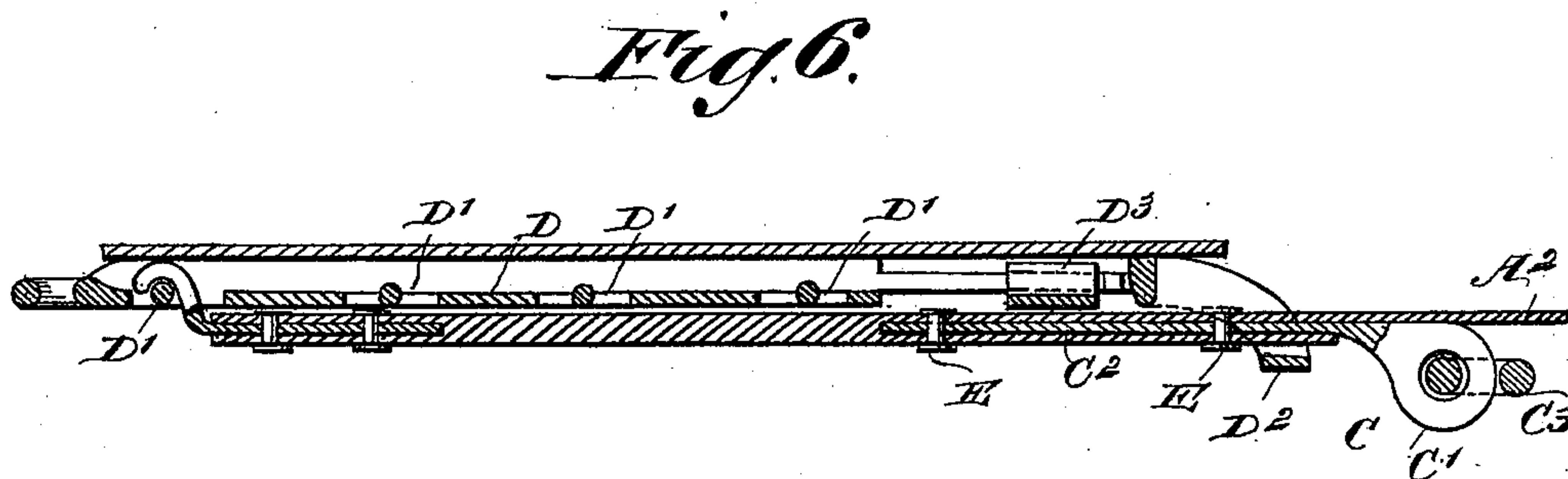
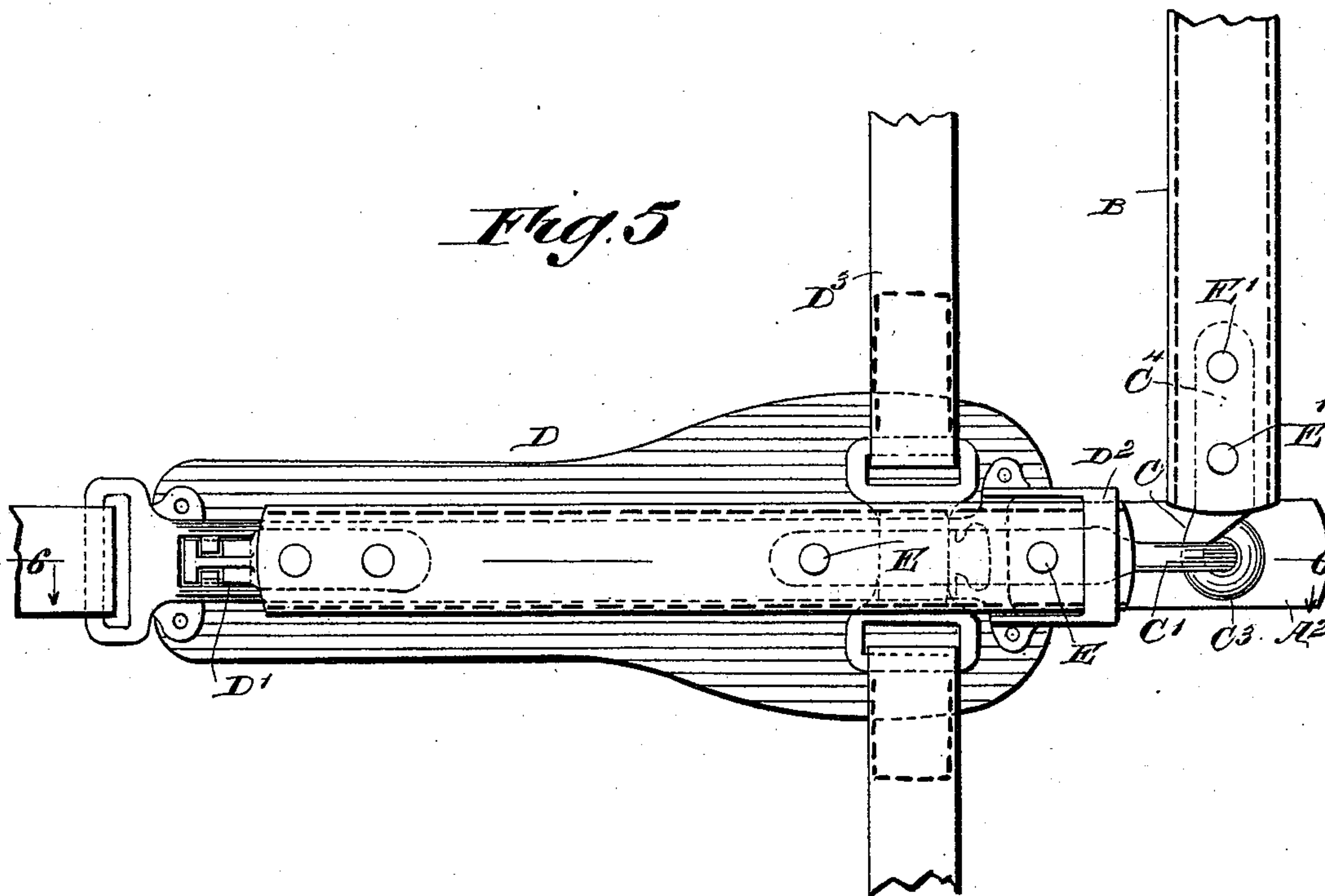
(No Model.)

2 Sheets—Sheet 2.

G. S. DUFFIN.  
TRACE.

No. 528,771.

Patented Nov. 6, 1894.



WITNESSES:

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# UNITED STATES PATENT OFFICE.

GEORGE SHACKLER DUFFIN, OF CHENEYVILLE, ILLINOIS.

## TRACE.

SPECIFICATION forming part of Letters Patent No. 528,771, dated November 6, 1894.

Application filed July 6, 1894. Serial No. 516,735. (No model.)

*To all whom it may concern:*

Be it known that I, GEORGE SHACKLER DUFFIN, of Cheneyville, in the county of Vermilion and State of Illinois, have invented a new and Improved Trace, of which the following is a full, clear, and exact description.

The invention relates to harnesses, and its object is to provide a new and improved trace, which is simple and durable in construction, and arranged in such a manner as to prevent twisting of the trace when a pull is exerted thereon, and to give perfect ease and freedom to the animal at all times.

The invention consists of a trace made in sections, and a coupling for the sections, one trace section being extended beyond the joint of the coupling and on the inside thereof.

Reference is to be had to the accompanying drawings, forming part of this specification, in which similar letters of reference indicate corresponding parts in all the views.

Figure 1 is a side elevation of the improvement. Fig. 2 is a plan view of the coupling. Fig. 3 is a sectional plan view of a modified form of the coupling. Fig. 4 is a side elevation of the same. Fig. 5 is a side elevation of the improvement as applied and with parts in a different position; and Fig. 6 is a sectional plan view of the same on the line 6—6 of Fig. 5.

The improved trace is provided with two sections A and B, united by a coupling C, as plainly illustrated in Fig. 1. The coupling C is provided with two members, of which one member is formed with a horizontally-extending eye C', held on a shank C<sup>2</sup> fastened by rivets or other means E, to the rear end of section A. The other member of the coupling is formed with a hook C<sup>3</sup>, engaging the eye C' and formed on a shank C<sup>4</sup>, fastened by rivets or other means E' to the forward end of the section B.

The front end of the section A is adapted to hook on one of the hooks D' of the hame tug D connected in the usual manner with the hame. The rear end of the section A passes through the loop D<sup>2</sup> of the hame tug, and the shank C<sup>2</sup> is made of such a length that no matter which hook D' is engaged by the front end of the section A, the said shank C<sup>2</sup> is still within the loop D<sup>2</sup>. The hame tug is provided with the usual back band D<sup>3</sup>.

The section B is fastened at its rear end to the single-tree, in the usual manner. The section A is extended as at A<sup>2</sup> beyond the joint of the coupling C and at the inner side thereof, so that the coupling does not in any shape or form whatever, come in contact with the animal, as the said extension A<sup>2</sup> serves as a guard to protect the skin of the animal from any rubbing action of the coupling C, as it is aligned on the inside thereof.

Usually the section A is split vertically to form the rounded front flange A', between which and the rear extension flange A<sup>2</sup>, is placed the shank C<sup>2</sup> of the coupling member united to the section A by the rivets E, as plainly shown in Fig. 1.

The coupling C may be made in different shapes or forms, such for instance as illustrated in Figs. 3 and 4, it being understood, however, that the main features of my invention consist in extending one trace section beyond the joint of the coupling and at the inside thereof, as previously described. It will also be seen that the coupling C permits of conveniently swinging the rear section B over the animal's back into the position indicated in Fig. 5. In case the trace should break it can readily be spliced at the broken portion by inserting and fastening the shank of a coupling C in the broken ends of the trace, so as to render the latter as good as new and not shorten it by the operation. It will also be seen that the coupling C will readily pass through buckles, loops or other parts and hence does not form an obstruction in manipulating the trace, as the grain of the leather sections of the trace is not affected by the insertion of the coupling and the trace is rendered very strong and durable.

In the modified form shown in Figs. 3 and 4, the coupling F is provided on one of its members F' with a pivot F<sup>2</sup> engaging an aperture in the other member F<sup>3</sup>, the said pivot pin having a reduced end carrying a counter-sunk washer F<sup>5</sup> held in place by riveting pin F<sup>4</sup>. By the arrangement described, the inner faces of the two coupling members are perfectly aligned so that the extension A<sup>2</sup> of the trace section A fits snugly against the inner side of the coupling and extends beyond the joint thereof.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. A trace formed in two sections A, B, 5 united at their adjacent ends by jointed coupling, the shanks of which enter and are riveted in the split ends of the said trace sections, the inner side of the section A having a rearward extension crossing the coupling 10 to take the wear, and the said coupling being in rear of and wholly independent of the back strap connections.

2. The combination with the tug D having a hook D' at its forward end, a loop D<sup>2</sup> at its 15 rear end and a back strap connection D<sup>3</sup> in

advance of the loop, of the trace formed in two sections, A, B, coupled by a jointed coupling in rear of and separate and independent of the tug and any of its parts, the trace section A extending through the loop D<sup>2</sup> and provided at its forward end with a hook to engage the hook D' the rear end of the section A having on its inner side an extension A<sup>2</sup> crossing the coupling and taking the wear, substantially as described. 20

GEORGE SHACKLER DUFFIN.

Witnesses:

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