

(No Model.)

C. L. DALTON.
THILL COUPLING.

No. 286,911.

Patented Oct. 16, 1883

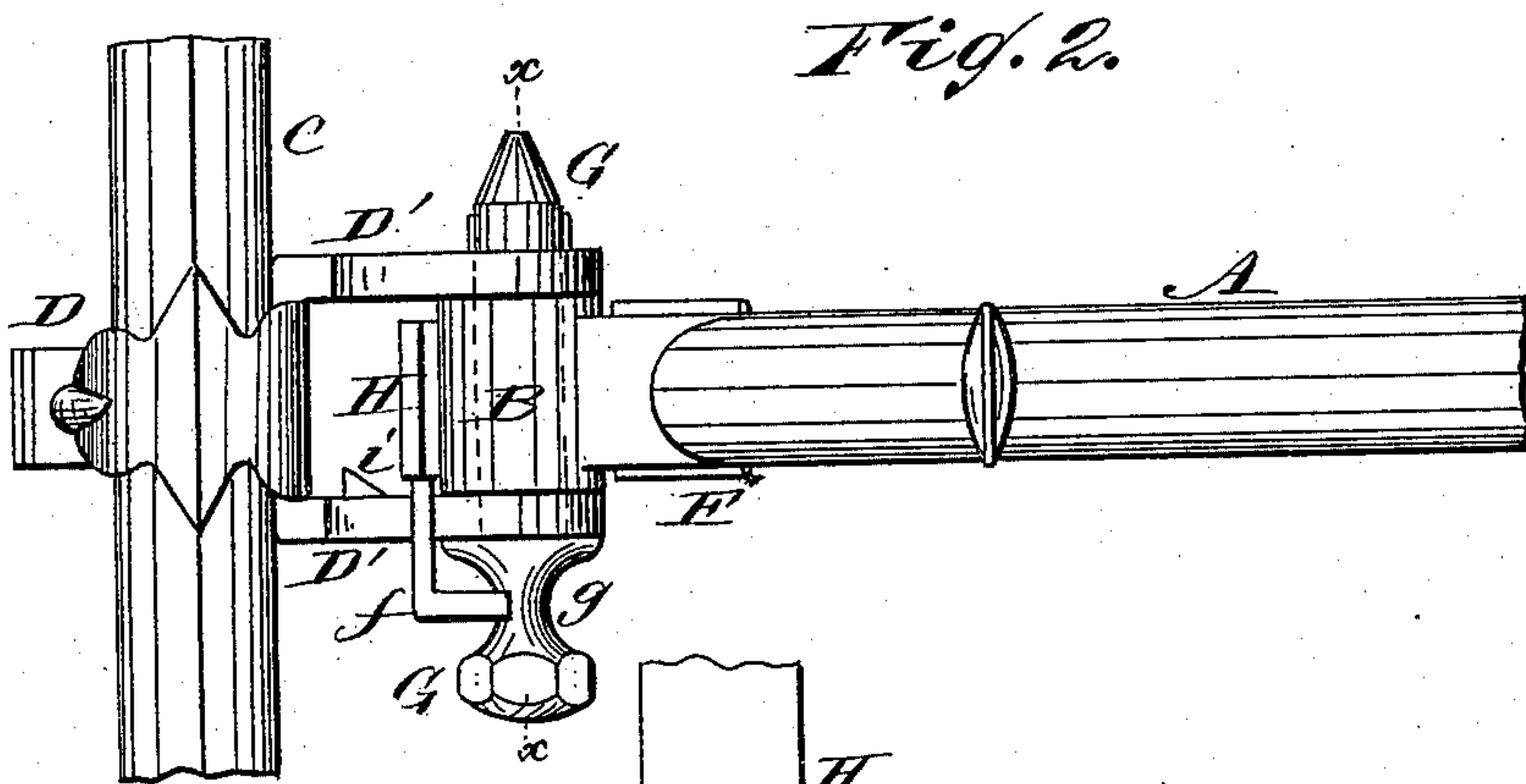
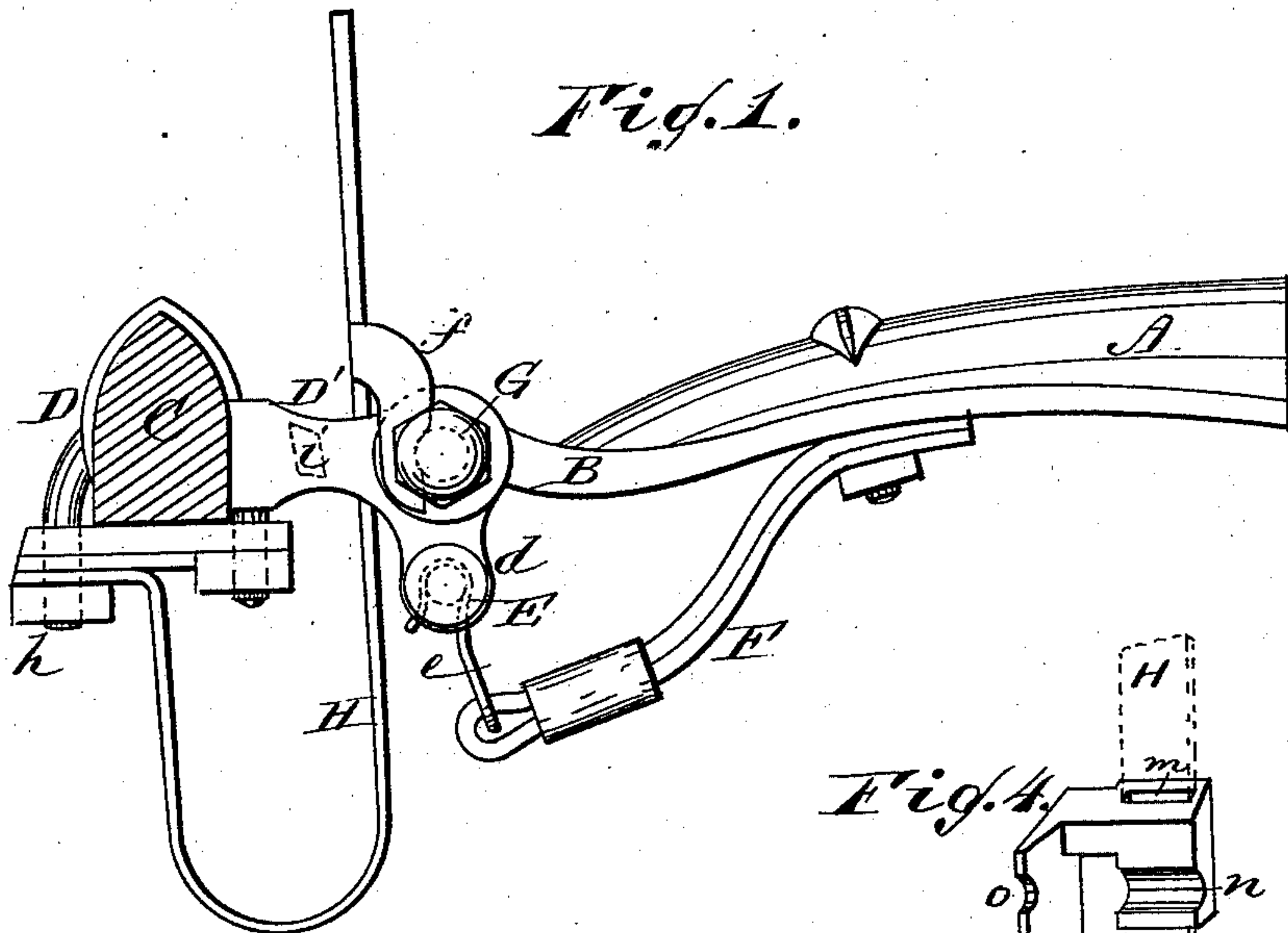
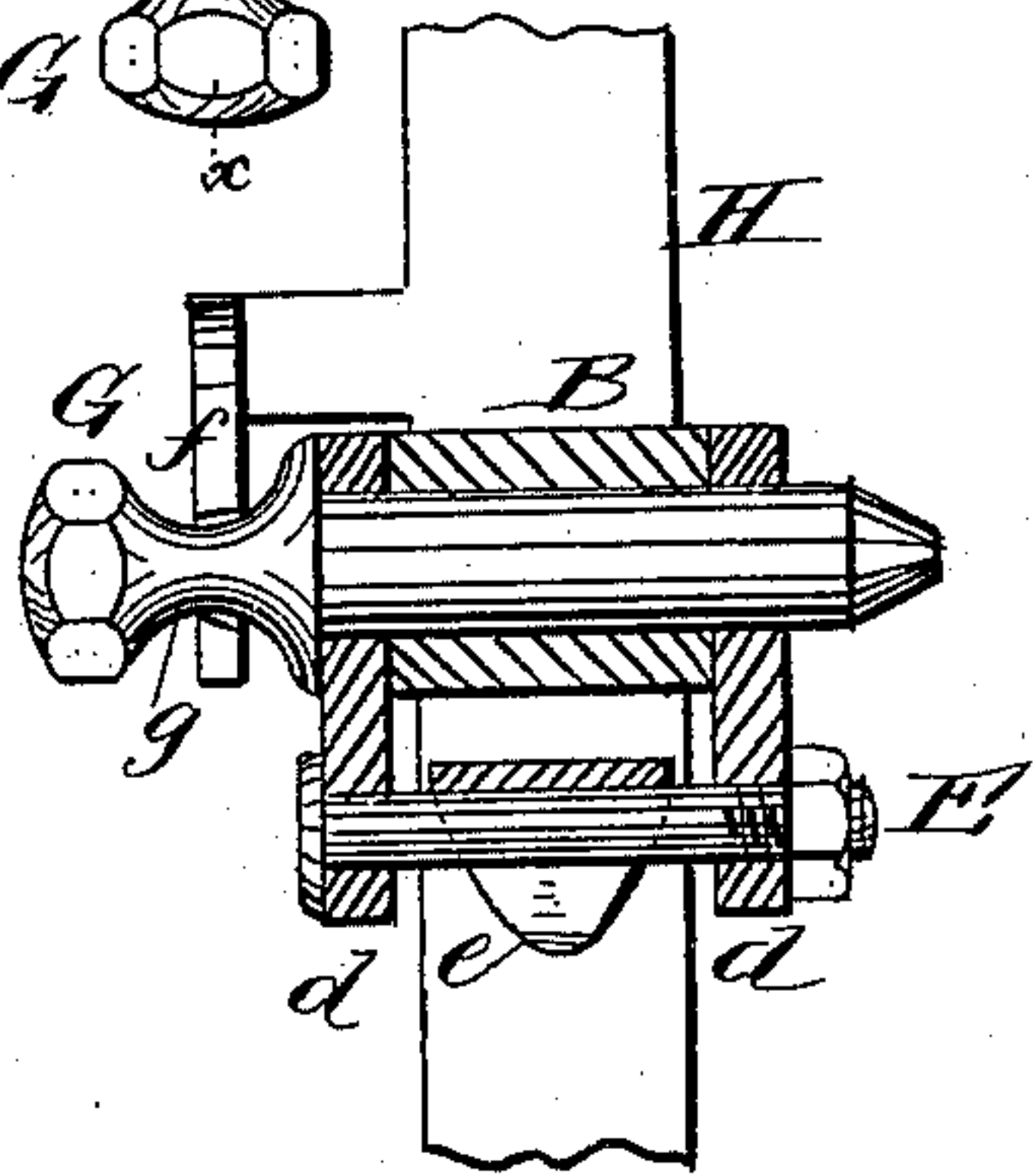


Fig. 3.

WITNESSES:
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UNITED STATES PATENT OFFICE.

CLARENCE L. DALTON, OF WEST ELKTON, OHIO.

THILL-COUPLING.

SPECIFICATION forming part of Letters Patent No. 286,911, dated October 16, 1883.

Application filed March 2, 1883. (No model.)

To all whom it may concern:

Be it known that I, CLARENCE L. DALTON, of West Elkton, in the county of Preble and State of Ohio, have invented certain new and useful Improvements in Thill-Couplings, of which the following is a full, clear, and exact description.

This invention consists in a combination of a novel thill-coupling spring having an attached latch with a removable and specially-constructed joint-pin, by which the pole or shaft is united with the coupling, and with which said latch engages; also, in a coupling-jaw of novel construction and provided with a tightening screw-bolt to prevent its spreading, likewise in a shaft-strap provided with a loop or hook that engages with said screw-bolt, and in means for holding the thill-coupling spring back when it is required to detach or adjust the shafts or pole of a vehicle, substantially as hereinafter described.

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 figures.

Figure 1 represents a side view of my improved thill-coupling as applied to a thill or pole and axle of a vehicle. Fig. 2 is a top view of the same, and Fig. 3 a transverse section on the line *xx* in Fig. 2. Fig. 4 is a perspective view, showing a modified construction of a spring-latch used in the thill-coupling.

Referring, in the first instance, to Figs. 1, 2, and 3 of the drawings, A indicates the thill, B the thill-iron, C the axle, and D the clip portion of the jaw-coupling D', secured to the axle in the ordinary or any suitable manner. Said coupling is a double-jaw one, having pendent or attached lower ears, *d d*, at the front ends of its sides or main jaw for reception, through lower holes therein, of a screw-bolt, E, which keeps the coupling or its jaws from spreading, and may be tightened up when required. Said lower bolt, E, also serves to receive over or into engagement with it a spring-hook, *e*, which is secured by the thill, said hook being attached to the one end of a leather or other flexible strap, F, the opposite end of which is fastened to the thill-iron B for holding up the thill or shafts in case the spring

and main bolt, hereinafter described, should break.

G is the main bolt, by which the pole or shaft through its iron B is coupled or jointed to the coupling D'. This main bolt is loosely fitted to its place, so that it may be drawn out endwise by pulling on its head after pressing back the thill-coupling spring H, which is constructed or provided with a side latch, *f*, that takes into a neck or groove, *g*, on the inside of the head of said bolt to hold it in place. This provides for a ready detachment of the parts when required, but securely holds the main bolt in place when it is not needed to detach the pole or shaft.

The spring H is of U or open-loop shape, with its front and free leg or arm, on which is the latch *f*, extending up within the jaw of the coupling and bearing against the inner end of the thill-iron B, and with its shorter and rear leg or arm fitted over the rear pin end of the clip, and secured in place by the nut *h*.

To take off or adjust shafts or pole to vehicles, the free end of the spring H is pressed back till the latch *f* is disengaged from the groove or neck *g* of the main bolt G, which may then be drawn out. This will be greatly facilitated by providing means for holding back the spring H while the change or dismemberment is being made, and to accomplish it the coupling D' is provided internally with a side catch, *i*, behind which the spring H, by slightly turning it for the purpose, is or may be temporarily set.

The spring H and main bolt G, constructed as herein described, may be used on vehicles having old or ordinary styles of thill-couplings, and will make it very convenient to change pole and shafts. All rattling, too, is prevented, inasmuch as the groove *g* in the coupling-pin G is made beveling where the latch *f* on the spring H bears against it, thus causing said main bolt or pin G to be constantly pressed to its place.

Fig. 4 shows a modification of the latch *f*, which is slotted, as at *m*, for adjustment on the spring H, which passes through it, and said latch is furthermore constructed with a grooved face-piece, *n*, that receives the thill-iron B within it, and has an outer arm notched, as at

o, to engage with the bevel-groove in the neck of the main bolt, as described.

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

5 1. In a thill-coupling, the combination, with a jaw-coupling to be secured to the axle of the vehicle, and with an iron or joint piece to be attached to the inner end of the pole or shaft, of the bent or open-loop shaped spring H, hav-
10 ing an attached latch, *f*, and the removable main or joint pin G, having a groove or neck,

g, for engagement of said latch, substantially as specified.

2. In a thill-coupling, the spring H, in combination with the jaw-coupling D, having an inner catch, *i*, for holding said spring when pressed back, essentially as and for the purposes herein set forth.

CLARENCE L. DALTON.

Witnesses:

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CHRISTOPHER H. PEIRSON.