

(No Model.)

J. D. BLAKEMAN.

TRACE DETACHER.

No. 377,982.

Patented Feb. 14, 1888.

Fig. 1

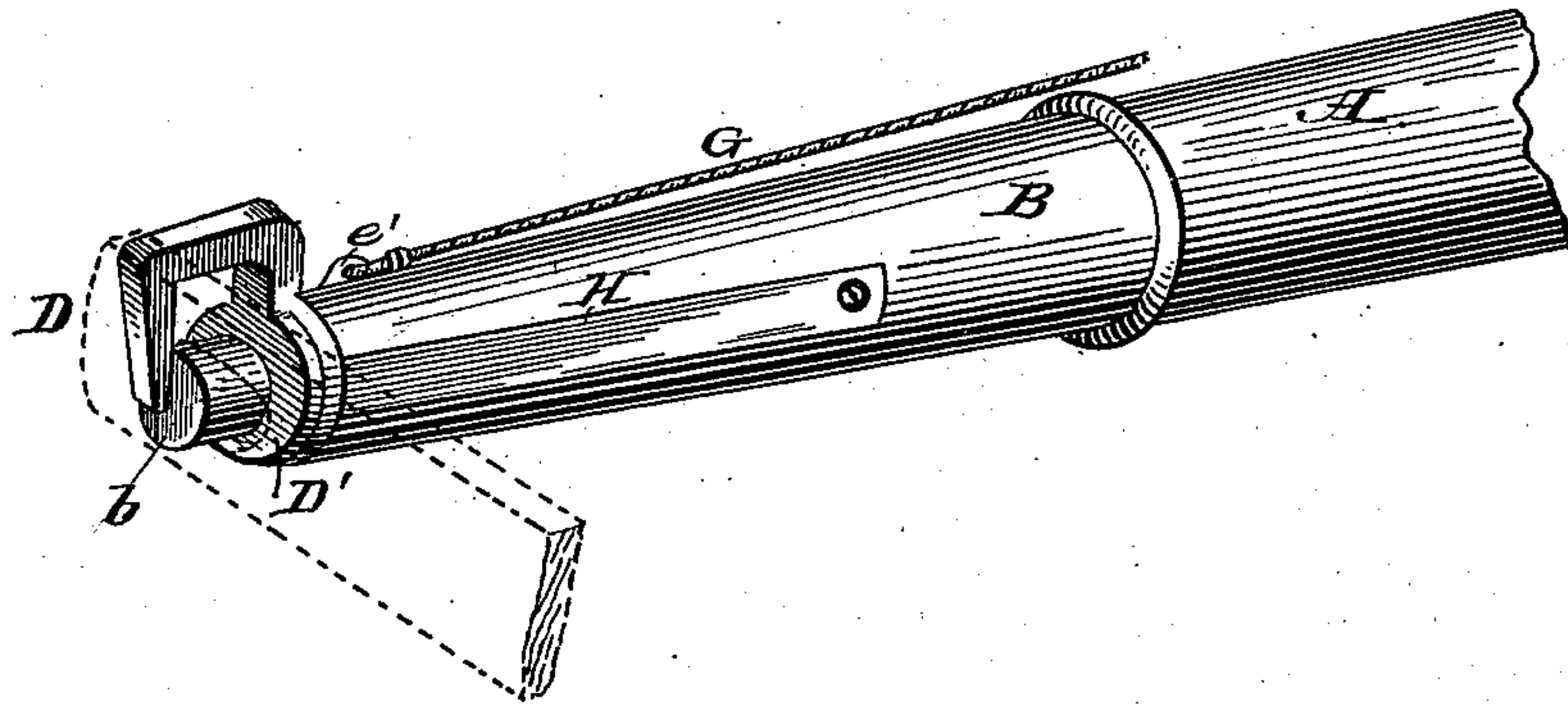


Fig. 2

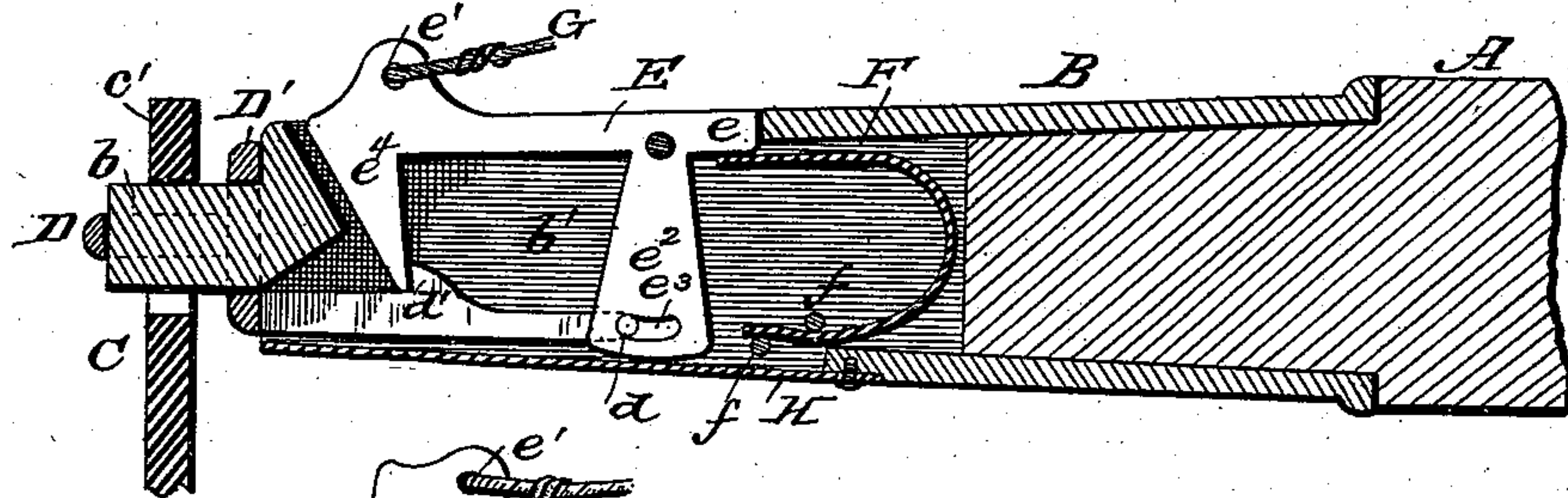
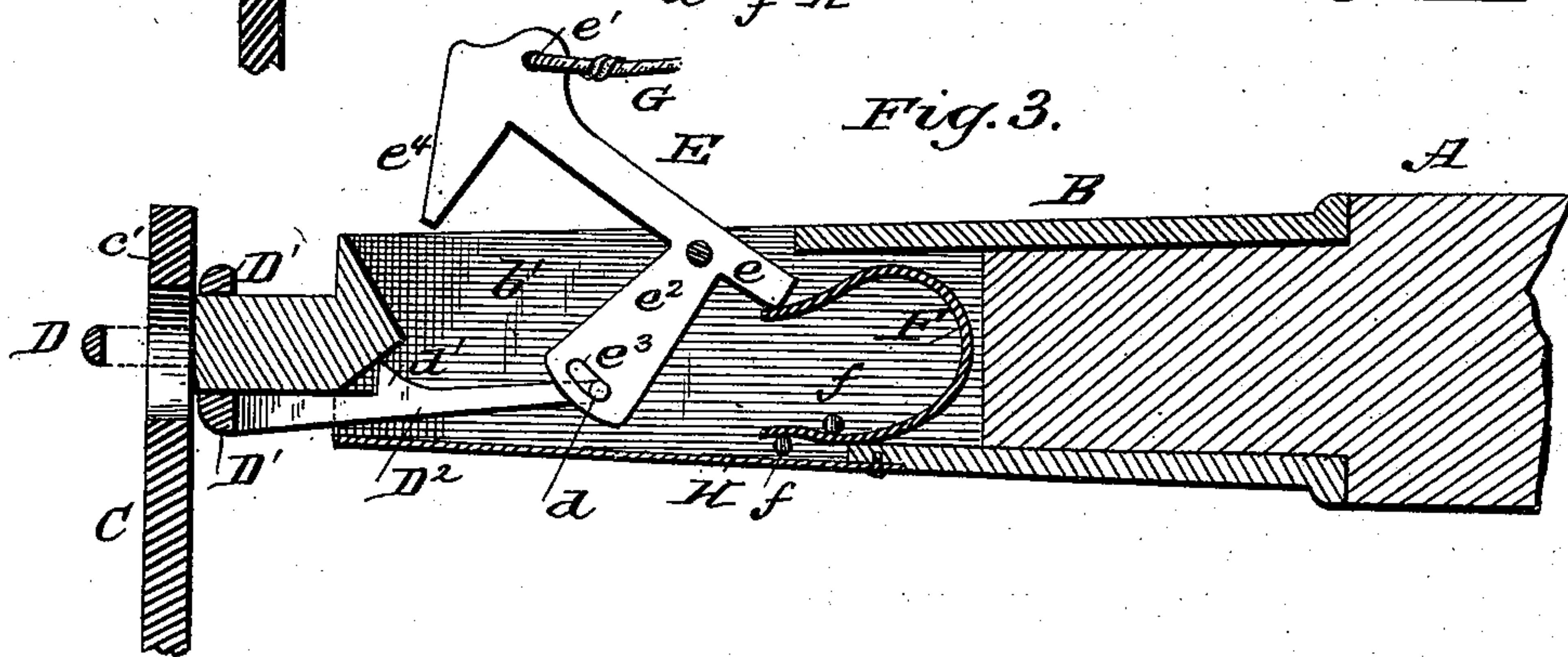


Fig. 3.



WITNESSES:

Fred G. Dieterich
John A. Kemou

INVENTOR:

John D. Blakeman
BY *Munn & Co*

ATTORNEYS.

UNITED STATES PATENT OFFICE.

JOHN D. BLAKEMAN, OF SMITH'S GROVE, KENTUCKY.

TRACE-DETACHER.

SPECIFICATION forming part of Letters Patent No. 377,982, dated February 14, 1888.

Application filed August 31, 1887. Serial No. 248,368. (No model.)

To all whom it may concern:

Be it known that I, JOHN D. BLAKEMAN, of Smith's Grove, in the county of Warren and State of Kentucky, have invented a new and useful Improvement in Trace - Detachers, of which the following is a specification.

My invention relates to attachments to singletrees for holding the end of the trace thereon when in ordinary use, and which may be operated by the driver to detach the trace from the singletree and thereby release the animal from the vehicle in case it should run away, or in case of accident requiring such quick release.

The object of my invention is to provide an improved device which will be of simple construction and will be reliable in operation; and the improvement consists in certain constructions and combinations of parts, hereinafter described, and particularly designated in the claims.

In the accompanying drawings, Figure 1 is a perspective of the end of a singletree with my attachment secured thereto; Fig. 2, a longitudinal section of the same with the end of the trace secured to the singletree, and Fig. 3 a similar representation of the same with the device operated upon to detach the trace from its singletree.

The singletree A has a ferrule, B, secured thereto in any well-known or preferred manner, upon the outer end of which a stud, *b*, formed integral with said ferrule, projects to receive the end of the trace C. The cockeye *c'* of the trace fits over the stud *b*, and is held securely thereon by a guard-arm, D, formed integral with a detaching-collar, D', which fits over the stud *b*, and is reciprocated longitudinally thereon by a lever, E, provided within a longitudinal slot, *b'*, in the ferrule, and operated by means of a cord extending to within reach of the driver.

The slot *b'* extends completely through the end of the singletree and receives the lever E, and also receives the inner extension, D², of the guard-arm and a flat spring, F, which presses against the short arm *c* of the lever E and holds it normally down within the slot *b'*. The lever E, when in its normal position, closes one—the slot *b'*—upon one side, and a flat cover or cap-plate, H, covers the said slot upon the

other side to completely inclose and protect the parts held within the slot from dirt and other obstructions.

The lever E has an eye, *e'*, to receive a cord, G, extending to within reach of the driver, and a bell-crank arm, *e*², projects across the slot *b'* of the singletree, and has a slot, *e*³, which receives a pin, *d*, upon the end of the guard-arm extension D², and serves, when the said lever is operated, to move the guard-arm, the guard-arm extension, and the detaching-collar longitudinally upon the end of the singletree to receive or release the end of the trace therefrom. A locking-arm, *e*⁴, projects across the slot *b'* and engages with a notch or jaw, *d'*, of the guard-arm extension and securely locks the said guard-arm extension and parts integral therewith in their closed position, as shown in Fig. 2 of the drawings. The slot *e*³ in the bell-crank extension of lever E will allow said lever to be swung a suitable distance to disengage the locking-arm *e*⁴ from the notch or jaw *d'* before the pin *d* is acted upon to move the guard-arm extension and its connections outward.

The spring F, being flat, is inexpensive, and is firmly held in place by being passed between pins *ff*, extending across the slot *b'* in the ferrule, and is bowed or bent sufficiently to secure the required tension and movement without obstruction at the inner end of the ferrule-slot.

The operation of the device is evident. When the traces are to be detached from the end of the singletree, the cord G is pulled by the driver and the lever E is pulled outwardly to first release the locking-arm from the notch in the guard-arm extension, and then push the said guard-arm extension and its connections outwardly a sufficient distance to allow the detaching-collar D' to push the trace off from the end of the pin *b*, and between the end of said pin and the guard-arm D, to thus completely release and insure the discharge of the trace from the end of the singletree. The device is thus certain and reliable in operation and is not liable to become inoperative in ordinary use. All of the working parts are inclosed from dirt and water, and the exposed parts will clear themselves of such obstruction when in operation. The cord is attached to the operating-lever upon the rear side of the singletree to allow a direct pull thereon by the driver,

and is out of the way, so as to prevent the lever from being accidentally moved and thus dropping the trace.

I claim as my invention and desire to secure
5 by Letters Patent—

1. In a trace-detacher, the combination, with a whiffletree provided with a stud projecting therefrom, of a collar fitting loosely on the stud of the whiffletree and provided with a
10 guard-arm and with an inwardly-projecting arm and a pivoted lever loosely pivoted to the inwardly-projecting arm of the collar, substantially as described.

2. In a trace-detacher, the combination, with
15 a whiffletree provided with a stud projecting from its end, of a collar fitting loosely on the stud of the whiffletree and provided with a guard-arm and with an inwardly-projecting arm, and a lever pivoted in the end of the
20 whiffletree and provided with arms, one of which is loosely pivoted to the inwardly-projecting arm of the collar and the other adapted to engage the said arm, substantially as herein shown and described.

3. In a trace-detacher, the combination, with
25 the slotted ferrule B, provided with the stud *b*, of the collar D', provided with the guard-arm D and the inwardly-projecting arm D², having jaw *d'*, and the spring pressed and pivoted lever E, provided with the slotted arm *e*², to which
30 the arm D² is pivoted, and the locking-arm *e*⁴, substantially as herein shown and described.

4. In a trace-detacher, the combination, with
35 the ferrule B, provided with the slot *b'* and the stud *b*, of the collar D', provided with the guard-arm D and the inwardly-projecting arm D², having jaw *d'* and pin *d*, the lever E, provided with the eye *e'*, the arm *e*², having slot
40 *e*³ and the arm *e*⁴, and the spring F, having its free end engaging the end of the lever E, substantially as herein shown and described.

JOHN D. BLAKEMAN.

Witnesses:

WM. HAZELIP,
JAMES WITHERSPOON.