No. 724,787. PATENTED APR. 7, 1903.

J. D. BLAKEMAN, DEC'D.

M. B. BLAKEMAN, ADMINISTRATRIX.

TRACE DETACHER.

APPLICATION FILED DEC. 11, 1902.

NO MODEL.

Fig. 1.

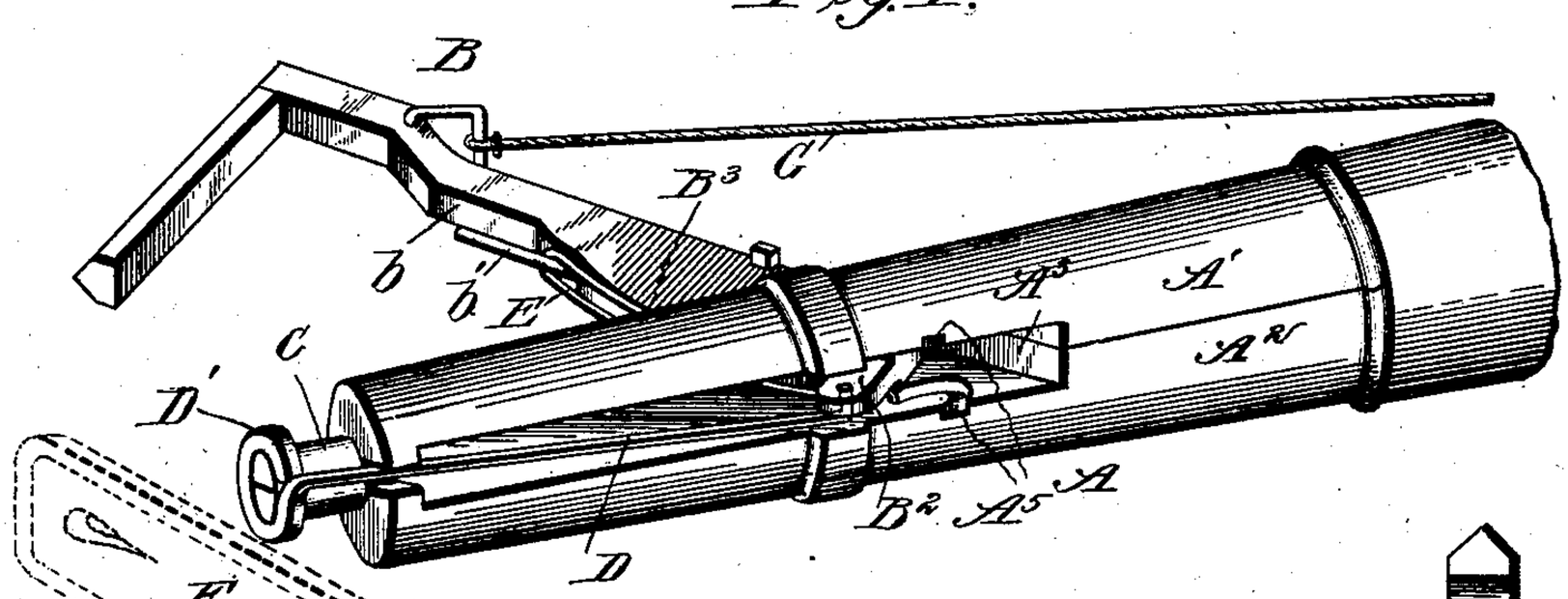


Fig. 6.

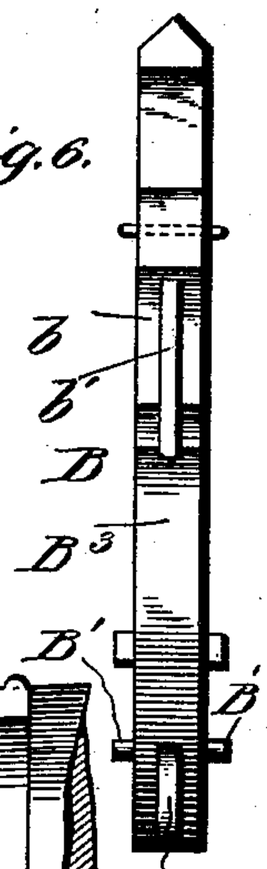


Fig. 2.

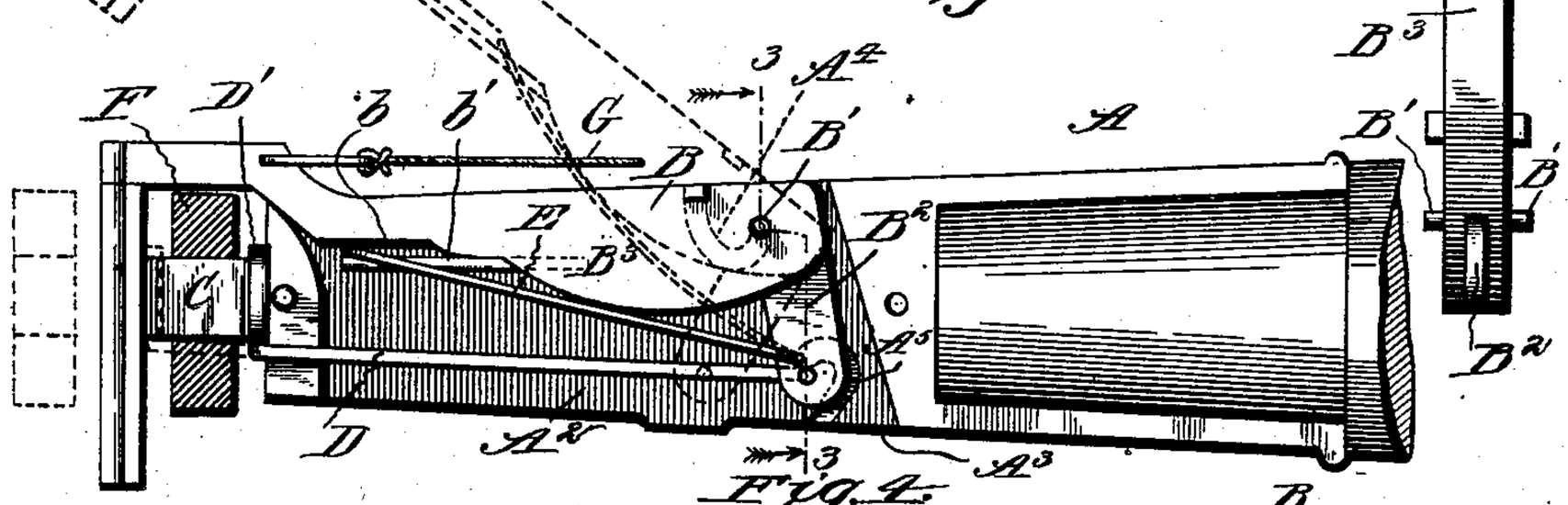


Fig. 4.

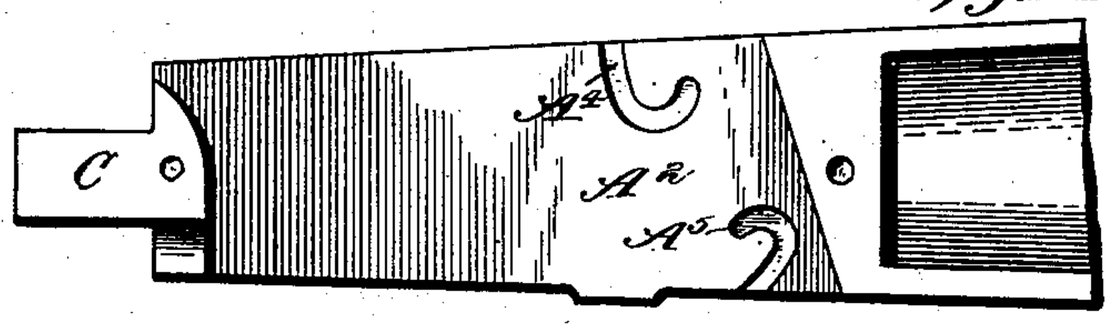


Fig. 3.

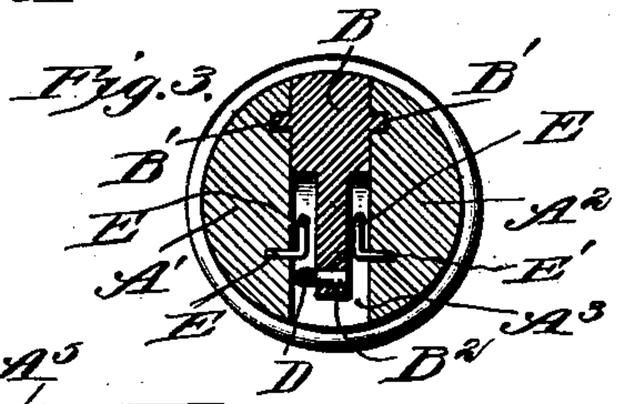


Fig. 5.

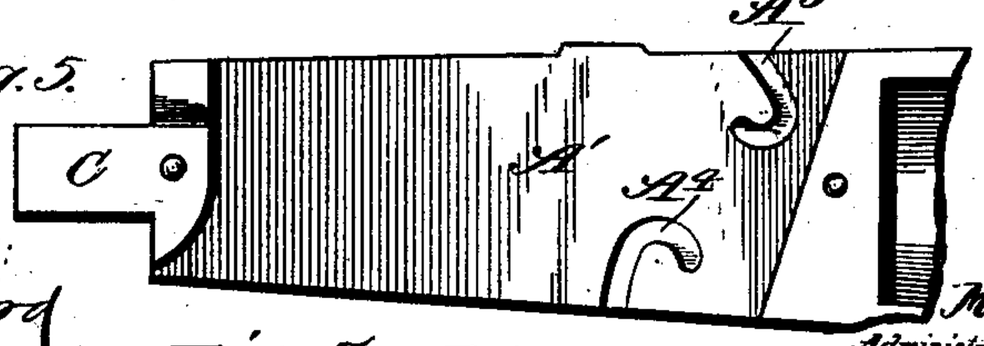
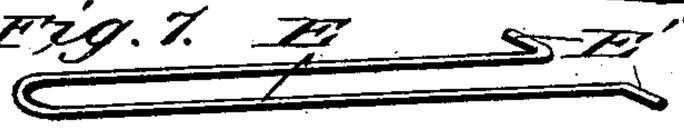


Fig. 7.



WITNESSES:

Fred. P. Bradford

Percy B. Turpin.

INVENTOR

M. B. Blakeman

Administratrix of the estate of

John D. Blakeman

Deceased.

By: Munn & Co.

ATTORNEYS.

UNITED STATES PATENT OFFICE.

MILDRED B. BLAKEMAN, OF SMITHS GROVE, KENTUCKY, ADMINISTRATRIX OF JOHN D. BLAKEMAN, DECEASED.

TRACE-DETACHER.

SPECIFICATION forming part of Letters Patent No. 724,787, dated April 7, 1903.

Application filed December 11, 1902. Serial No. 134,851. (No model.)

To all whom it may concern:

Be it known that I, MILDRED B. BLAKEMAN, a citizen of the United States, residing at Smiths Grove, in the county of Warren and State of Kentucky, am the administratrix of the estate of JOHN D. BLAKEMAN, deceased, who during his lifetime invented certain new and useful Improvements in Trace-Detachers, of which the following is a specification.

This invention is an improvement in trace-detachers for use on singletrees, and particularly in that class of trace-detachers represented by the former patent, No. 428,370, issued May 20, 1890, to John D. Blakeman; and the present invention consists in certain novel constructions and combinations of parts, as will be hereinafter described and claimed.

In the drawings, Figure 1 is a perspective view of the device as in use. Fig. 2 is a longitudinal section thereof. Fig. 3 is a cross-section on about line 3 3 of Fig. 2. Figs. 4 and 5 are detail elevations of the inner faces of the sections of the device. Fig. 6 is a detail elevation of the inner edge of the guard-lever, and Fig. 7 is a detail perspective view of the actuating-spring.

In carrying out the invention the whiffletree A is provided, preferably made in upper and lower sections A′ and A^2, which support the studs C at their outer ends and between which is formed at A^3 a recess or slot in which operates the guard-lever B and the main portion of the trace-detacher bar D, as shown. In the inner faces of the sections A′ and A^2 or in the walls of the slot A^3 curved grooves A^4 and A^5 are provided, which form seats, respectively, for the pivot-studs B′ of the guard-lever B and for the studs F′ of the loop-spring E, which actuates the guard-lever. For convenience of reference the sections A′ and A^2 consitute a ferrule at the outer end of the whiffletree, as shown, and the guard-lever B may be adjusted to the position shown in full lines, Fig. 2, to retain the trace F on the stud C, or the said arm may be adjusted to the dotted-line position, Fig. 2, and the full-line position, Fig. 1, to release the trace, as will be understood from dotted lines in Fig. 1. The guard-lever B is provided with a crank-arm B^2, to which is connected the trace-detacher bar D, the latter being provided at its outer end with a head D′ in the form of a ring encircling the studs C and slidable along the same, as will be understood from Figs. 1 and 2. The inner edge of the lever B, adjacent to its pivot, is rounded or projected at B^3 to form a bearing for the loop-spring E, which spring is secured at its ends E′ to the whiffletree, preferably by fitting such ends in the grooves A^5, while the other end of the loop-spring operates in the guide way or slot *b* in the guard-lever and preferably formed by means of a pin *b*′, secured to the guard-lever and forming the guide-slot *b*, in which the swinging end of the loop-spring E operates. When the parts are arranged as shown in full lines, Fig. 2, the trace F will be retained on the stud C by the outer arm of the guard-lever. If, however, the said lever be operated by means of a string G or other suitable connection to the position indicated in dotted lines, Fig. 2, and full lines, Fig. 1, the trace F will be pushed off the pin C by the head D′ of the detacher-bar. Thus in a moment the horse can be freed, and in case he should run away damage to the vehicle and injury to its occupants will be avoided. The spring E, arranged and operating as shown, tends to retain the guard-lever in the position shown in full lines, Fig. 1, and to return it to such position when moved therefrom in the operation of the device. The action of this spring is strong and certain, operating as it does by a sliding connection with the guard-lever and fulcruming between its ends against the rounded surface or projection of the said lever, as best shown in Fig. 2 of the drawings. Also by making the end of the whiffletree in sections, slotted to receive the guard-lever, spring, and detaching-bar, the said parts are securely incased and the pivoting of the guard-lever and the securing of the actuating-spring is facilitated by the grooved construction of the walls of the said slot at A^4 and A^5, as before described.

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

1. The improvement in trace-detachers herein described comprising the whiffletree

having its ends composed of sections fitted face to face, and having in their meeting faces coinciding recesses forming a slot for the guard-lever, and having the walls of said slot provided with curved grooves forming seats for the pivot-studs of the guard-lever, and for the end studs of the actuating-spring, the trace-detacher bar, the guard-lever having pivot-studs held in the slots of the whiffletree-sections and provided with a crank-arm connecting with the trace-detacher bar, and having at its inner edge a rounded projection and at the end thereof a longitudinal slot or guideway for the actuating-spring, and the actuating-spring provided at one end with outwardly-projecting studs held in the curved slots of the said sections and having its other end looped and held and operating in the slots of the guard-lever, said spring fulcruming between its ends on the rounded projection of the guard-lever, all substantially as and for the purposes set forth.

2. The combination with a whiffletree, of the trace-detacher bar, the guard-lever having a crank-arm connecting with and operating said bar and also provided with a longitudinal slot forming the keeper for one end of the actuating-spring, and the actuating-spring operating at one end in said keeper and held at its other end to the whiffletree and fulcruming between its ends against the guard-lever, substantially as set forth.

3. The combination with the whiffletree having a slot and provided in the walls thereof with the curved grooves, of the trace-detacher bar, the guard-lever having its pivot-studs held in one pair of said grooves, the spring having at one end studs held in the other pair of said grooves, and slidably engaged at its other end with the guard-lever and fulcruming between its ends against the said lever, substantially as set forth.

4. The combination with the whiffletree and the trace-detacher bar, of the pivoted guard-lever, provided with means for operating the trace-detacher bar, and the spring held at one end to the whiffletree and slidably engaged at its other end with the guard-lever and fulcruming between its ends against the said guard-lever, substantially as set forth.

5. In a trace-detacher, the combination with the whiffletree, of the pivoted guard-lever having a rounded projection on its inner edge, and a keeper-slot at one end of said projection, and the spring operating at one end in said keeper-slot and fulcruming between its ends against the rounded projection and held at its other end to the whiffletree, substantially as set forth.

MILDRED B. BLAKEMAN.

Witnesses:
R. E. BEARD,
J. R. KIRBY.