

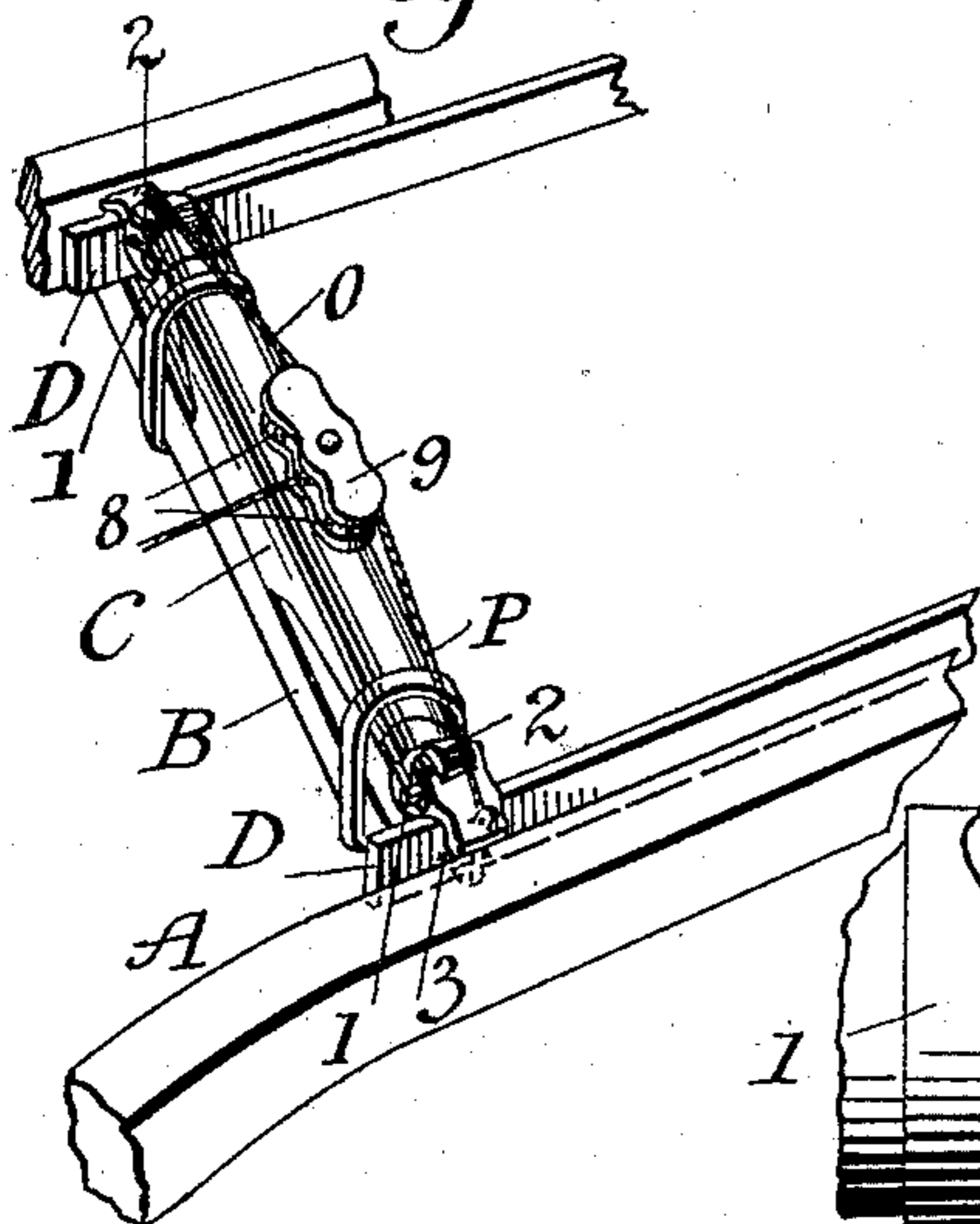
(No Model.)

I. & M. E. VANDERBECK.  
TRACE DETACHER.

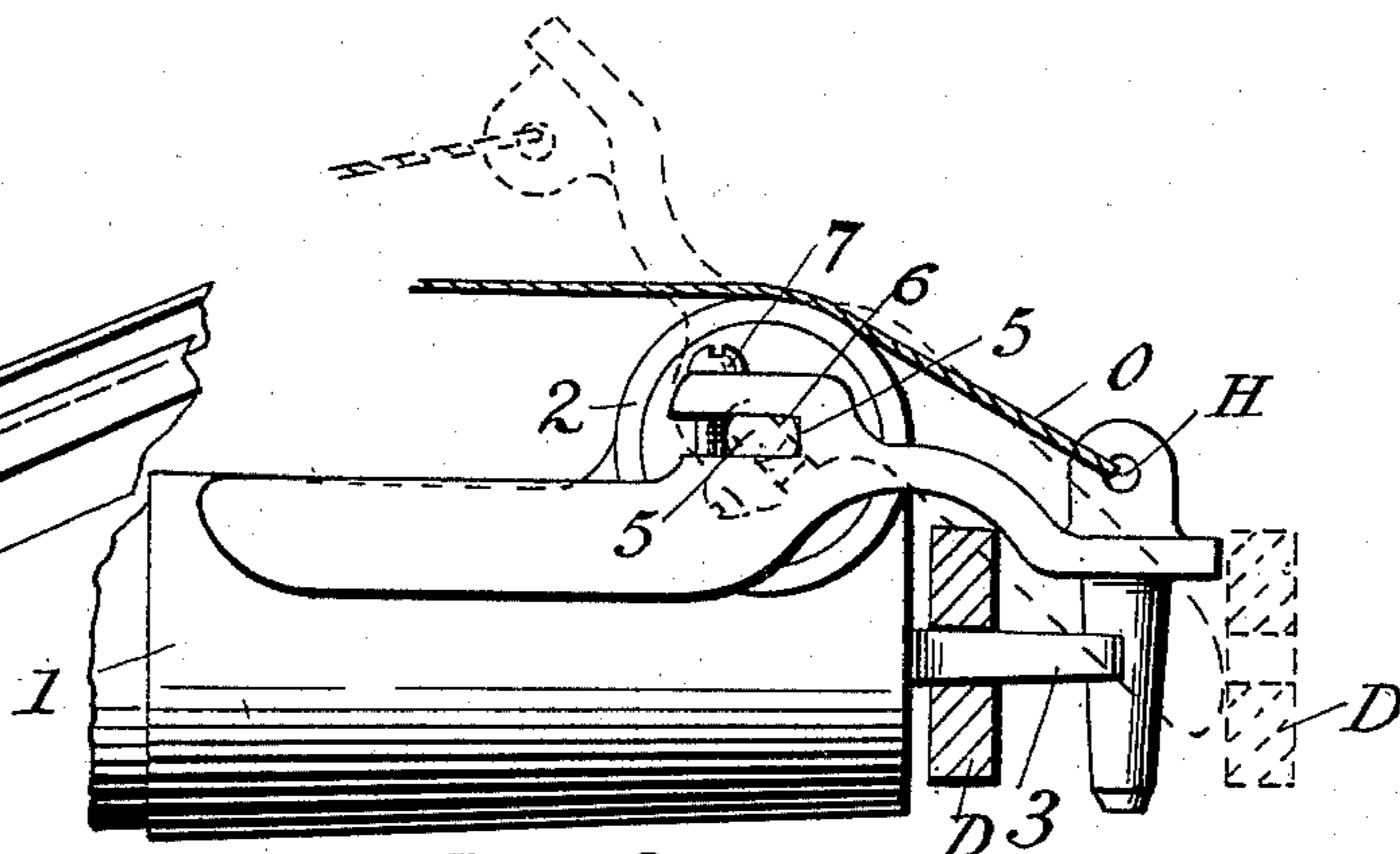
No. 591,181.

Patented Oct. 5, 1897.

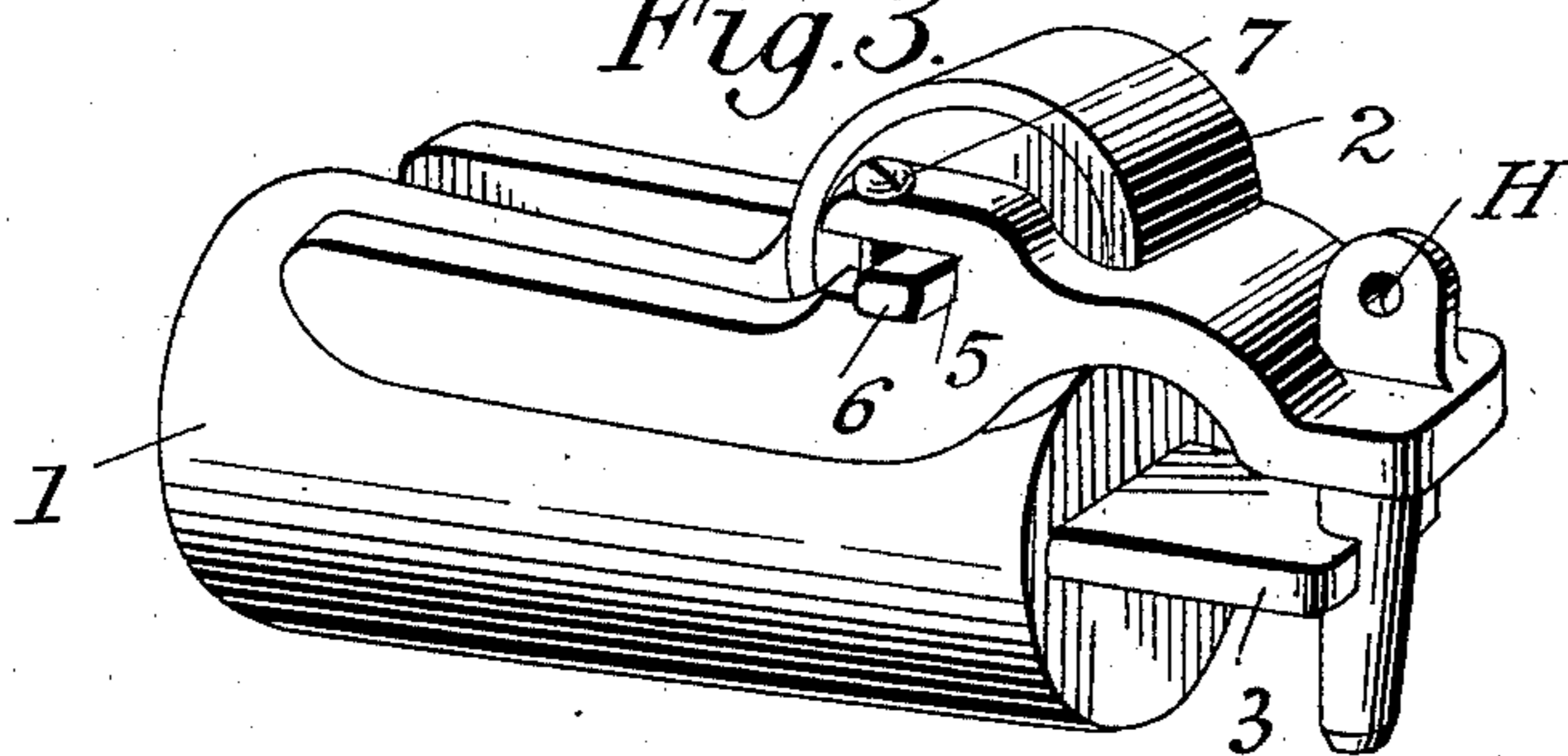
*Fig. 1.*



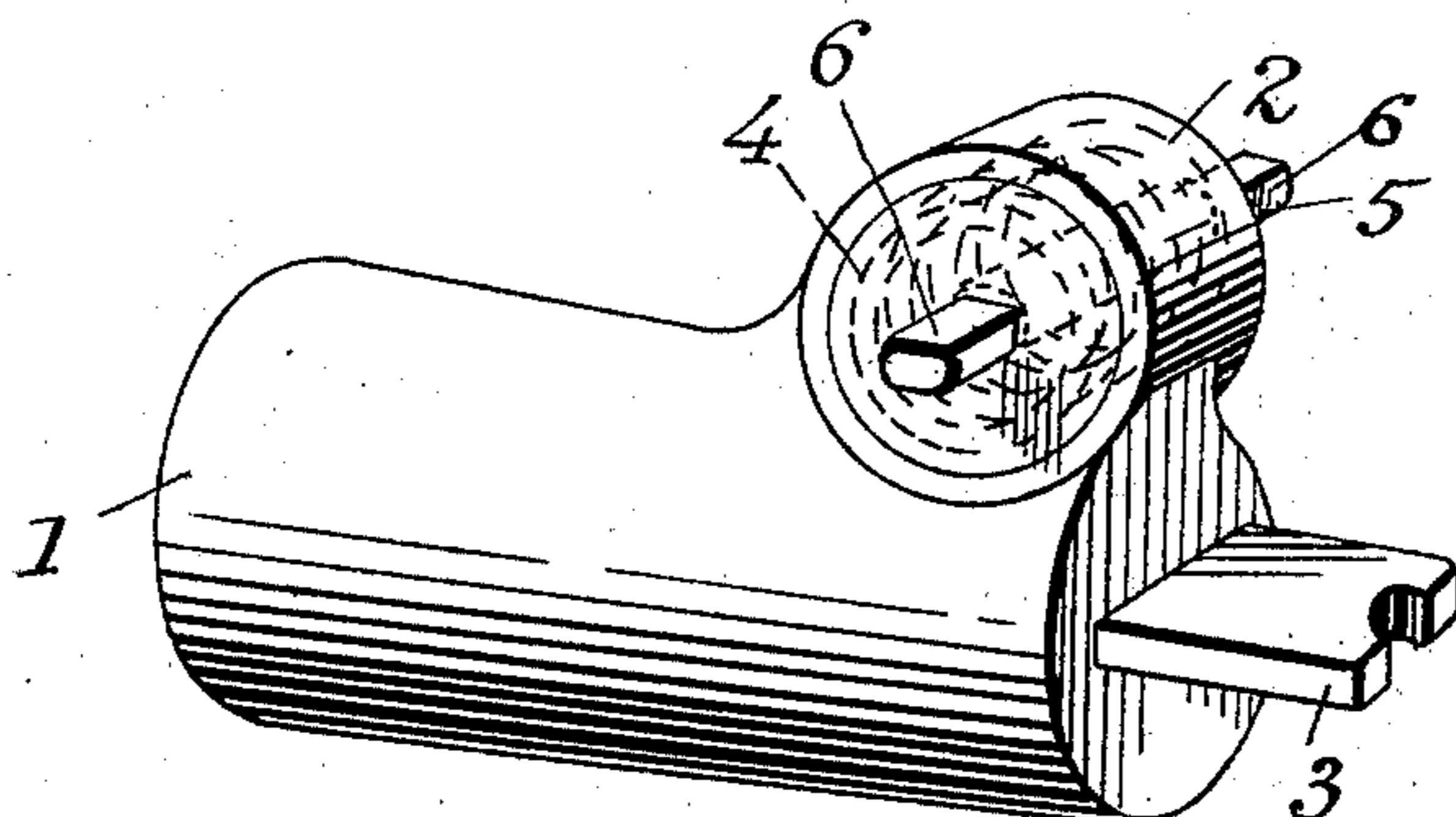
*Fig. 2.*



*Fig. 3.*



*Fig. 4.*



Witnesses:

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# UNITED STATES PATENT OFFICE.

ISADORE VANDERBECK AND MARTILE EUGENE VANDERBECK, OF HUNTSVILLE, MISSOURI.

## TRACE-DETACHER.

SPECIFICATION forming part of Letters Patent No. 591,181, dated October 5, 1897.

Application filed June 15, 1897. Serial No. 640,850. (No model.)

*To all whom it may concern:*

Be it known that we, ISADORE VANDERBECK and MARTILE EUGENE VANDERBECK, citizens of the United States, residing at Huntsville, in the county of Randolph and State of Missouri, have invented certain new and useful Improvements in Trace-Detachers; and we do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

Our invention relates to trace-detachers, and is designed as an improvement upon Letters Patent of the United States granted to us November 12, 1895, No. 549,551.

The object of the invention is to simplify the construction set forth in said patent.

With this object in view the invention consists in certain features of construction and combination of parts which will be hereinafter fully set forth.

In the accompanying drawings, Figure 1 is a perspective view of a portion of the shafts of a vehicle, the cross-bar thereof, the singletree connected thereto, our improved detaching device connected to the singletree, and the trace engaged with the ends of said singletree. Fig. 2 is a detail view of one end of a singletree, on an enlarged scale, showing the trace-releasing mechanism partly in section and in operative position in dotted lines, the trace being shown in engagement with the end of the singletree in full sectional lines and in a released position in broken sectional lines. Fig. 3 is a detail perspective view of the trace-releasing device on an enlarged scale, and Fig. 4 is a similar view of the spring-casing and its integral sleeve and stud.

In said drawings, A represents a portion of the shafts of a vehicle, which are connected by the cross-bar B, and to said bar in the usual manner is connected the singletree C, all of which parts may be of the ordinary construction.

To the singletree is attached the mechanism for releasing the ends of the traces D from the usual studs at the ends of the singletree.

Each end of the singletree is provided with a sleeve 1, which is securely fastened in position and which is provided with an integral spring-casing 2 and an integral trace-stud 3. Within the spring-casing 2 is a spring 4, and projecting from the casing and connected to the spring is a shaft 5, having square ends 6.

The detaching device is substantially the same in construction as that shown in our patent before referred to, with the exception that they are provided with open-ended horizontal slots, which are adapted to engage the squared ends of the shaft 5, so that when said shaft turns the detaching device will be correspondingly moved. To hold the detaching device in position, we employ two set-screws 7, which close the ends of the slot. This is an important feature of the invention and is a much more practical way of connecting the detaching device to the shaft than that shown and described in our said Letters Patent.

The connections O P, which may be wires, cords, chains, or other flexible connections, are attached in any suitable manner to the eyes H or the coupling-pins, which connections form the means for operating the releasing devices when it is found necessary to release the traces from the ends of the singletree. These connections O P, after being properly attached to the eyes or coupling-pins, extend along over the singletree and pass around pulleys 8, journaled in the pulley-frame 9, swiveled to the singletree.

The operation of the two devices is practically the same, and it is not thought necessary to go into an extended explanation of the functions of the different parts of the present invention.

Having thus described our invention, what we claim, and desire to secure by Letters Patent, is—

A horse-detacher consisting of a casing mounted on the end of a singletree, and provided with a smooth round upper surface to serve as a bearing for the operating-cords, a spring in the casing connected to a shaft or pintle having squared ends projecting out-

ward through the casing, in combination with  
a trace-holder having open slotted rear ends  
to engage the squared ends of the shaft, set-  
screws to close the slots, and the front end of  
5 said holder carrying a depending pin designed  
to hold the trace on the stud 3, and to be re-  
leased by the operating-cords, substantially  
as described.

In testimony whereof we hereunto affix our  
signatures in presence of two witnesses.

ISADORE VANDERBECK.

MARTILE EUGENE VANDERBECK,

Witnesses:

C. D. SHAEFER,

W. O. RUTHERFORD.