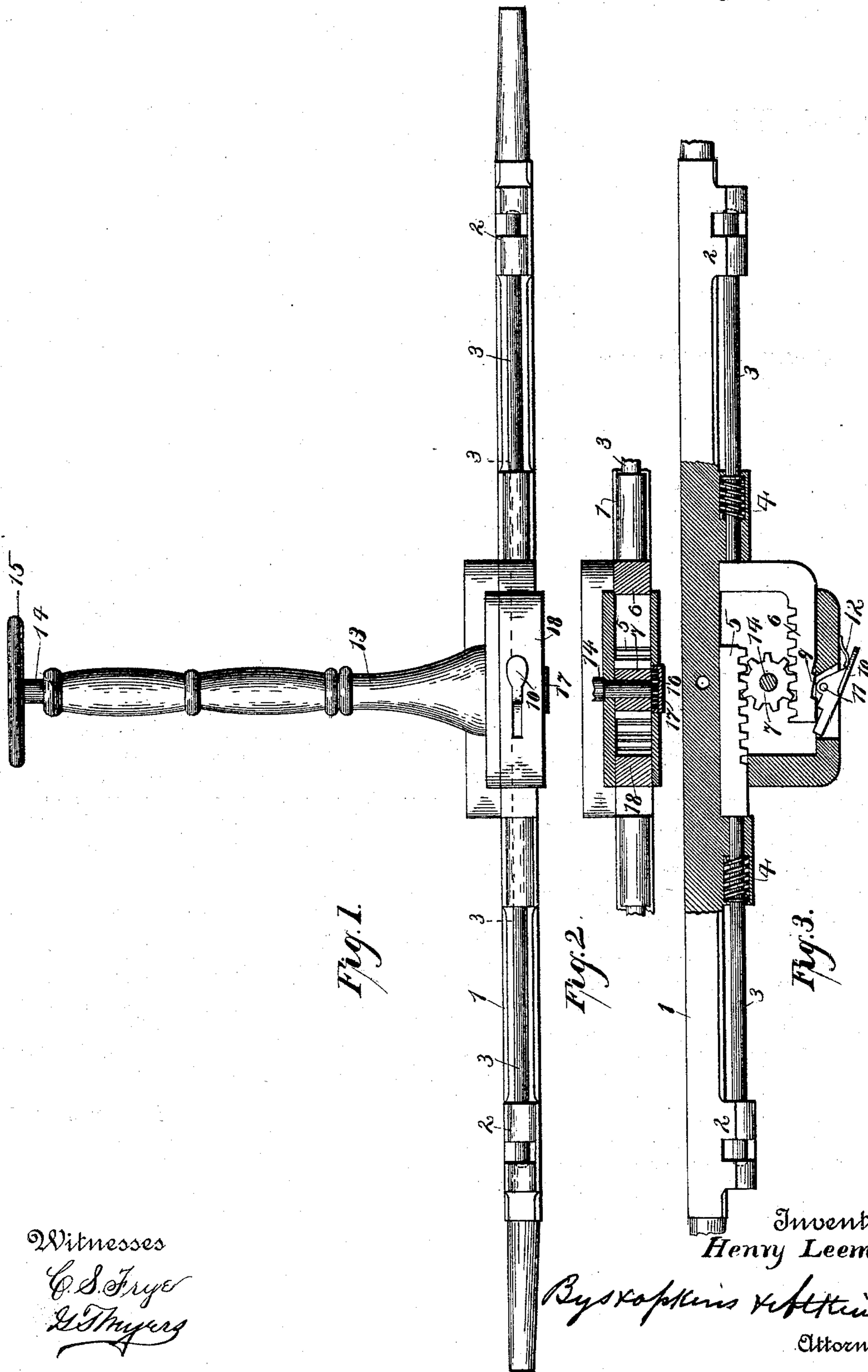


H. LEEMANN.  
HORSE DETACHER.

Patented May 9, 1893.



Witnesses  
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# UNITED STATES PATENT OFFICE.

HENRY LEEMANN, OF LOUISIANA, MISSOURI.

## HORSE-DETACHER.

SPECIFICATION forming part of Letters Patent No. 497,190, dated May 9, 1893.

Application filed February 9, 1893. Serial No. 461,651. (No model.)

*To all whom it may concern:*

Be it known that I, HENRY LEEMANN, of Louisiana, county of Pike, and State of Missouri, have invented certain new and useful  
5 Improvements in Horse-Detachers, of which the following is a specification, reference being had to the accompanying drawings.

The object of my invention is to produce certain improvements over the devices shown  
10 in my patent, No. 487,126, dated November 29, 1892, and it consists in certain mechanism whereby the device, when the horse is released, is adjusted for again receiving the shafts without attention of any sort.

15 In the accompanying drawings, Figure 1 is a side elevation of my machine. Fig. 2 is a central vertical section of the lower part thereof; and Fig. 3 a horizontal section on the line 3, 3, of Fig. 1.

20 Referring to the figures on the drawings, 1 indicates an axle; and 2 the thill knuckles.

3 indicates thill-coupling rods, driven as by springs 4 into the knuckles. Each is provided upon its inner end with a rack 5 and  
25 6, respectively, which is adapted to be actuated by a pinion 7. One of the racks is provided with one or more notches 9, with which a click 10, pivoted at 11, is adapted to engage, and which is urged toward engagement by a spring 12. These parts are all in-  
30 closed in a suitable strong case, 18 upon top of which is firmly secured a sleeve 13, within which is carried a shaft 14, carrying upon its lower end the pinion 7, and upon its upper  
35 end a wheel 15.

16 indicates a coiled spring carried in a case 17 underneath the case 18, and adapted to impart rotary movement to the pinion 7. The tendency of this spring is to keep the thill-coupling rods forced into the thill-knuckles, 40 it having been found impracticable to secure sufficiently strong springs for this purpose within the limited space.

In operation, suppose it to be desirable to detach a horse, the wheel 15 is rotated until 45 the rods are withdrawn sufficiently to release the thills. In this position the click 10 locks its rack in position, thereby locking the intermeshing mechanism, and preventing the shooting of the rods back to their former position. When it becomes desirable to reattach the thills, all that is necessary is to press upon the click 10, when the springs 4 will force the rods into the knuckles, and secure the thills  
55 as before.

What I claim is—

The combination with an axle and thill-coupling, rods, and racks secured thereto, of a spring-actuated pinion, a case, mechanism for operating the pinion, and a click adapted 60 to engage with one of the racks, substantially as and for the purpose specified.

In testimony of all which I have hereunto subscribed my name.

HENRY LEEMANN.

Witnesses:

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