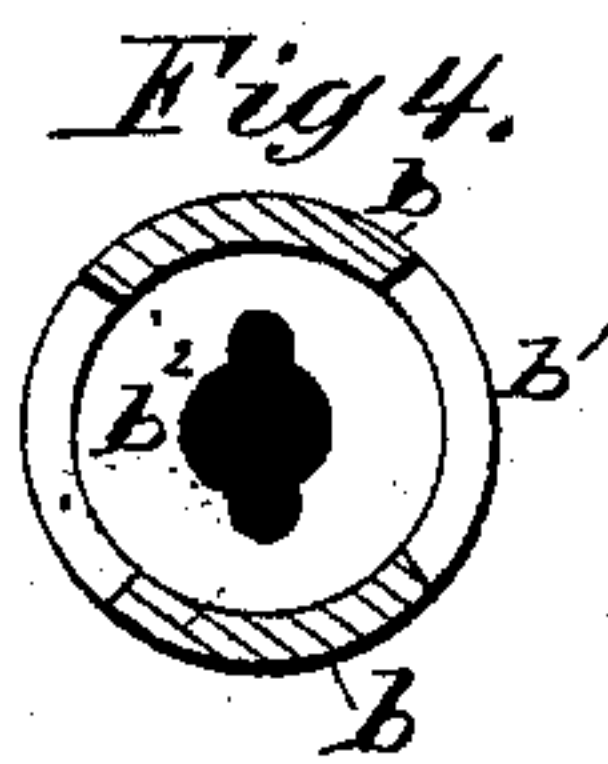
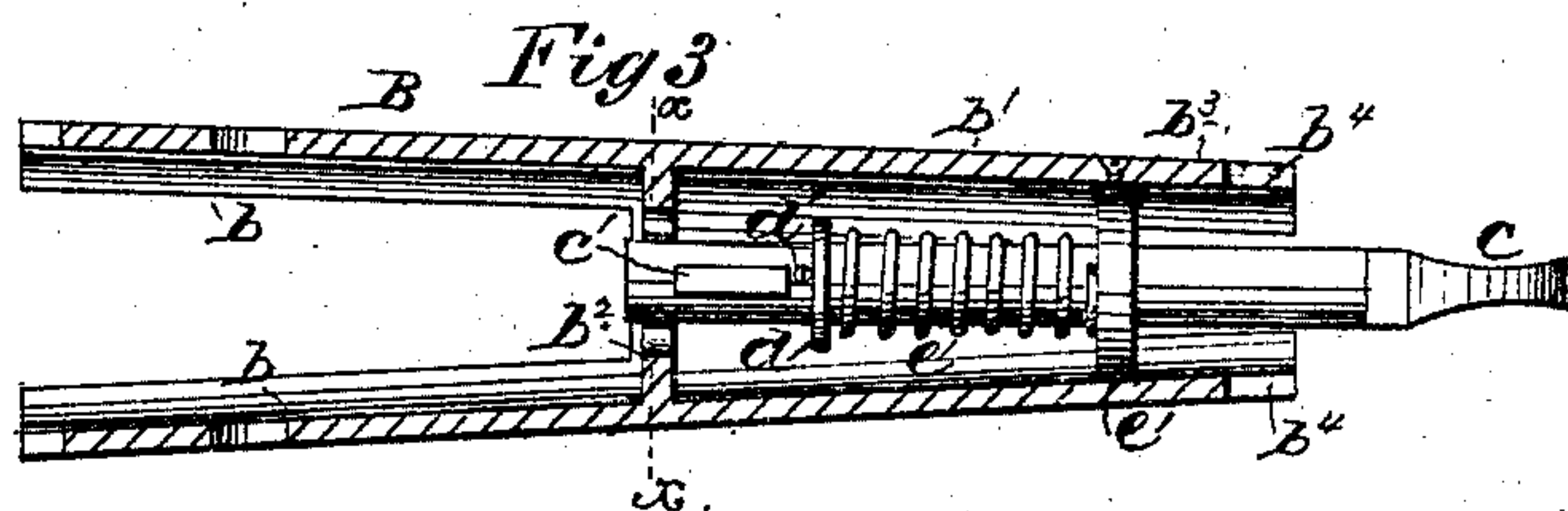
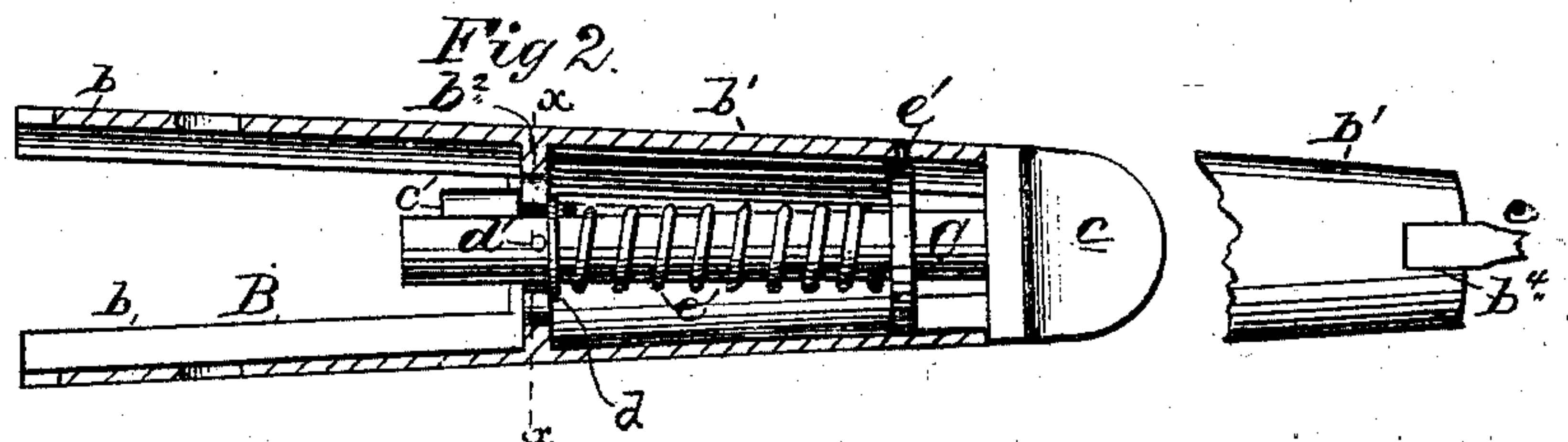
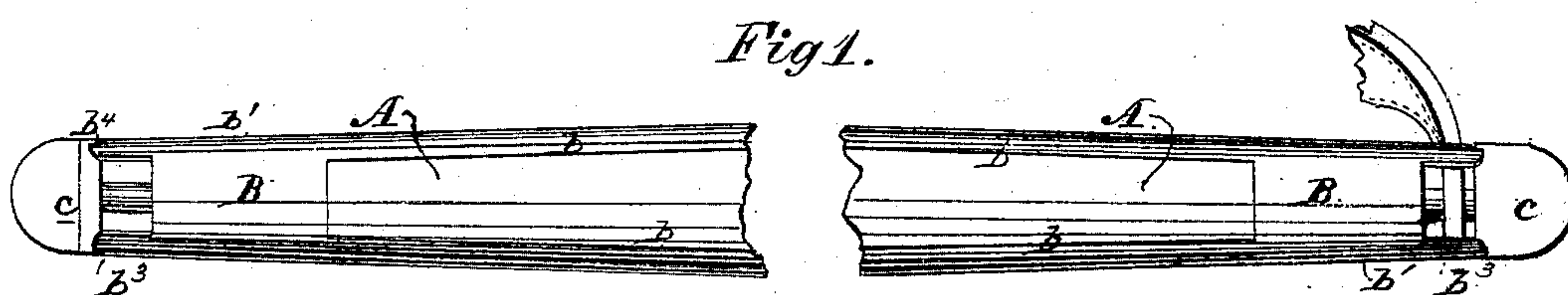


S. SYKES.
Devices for Detaching Horses.

No. 143,428.

Patented Oct. 7, 1873.



Witnesses;
 H. C. Clark.
 G. L. Dyer

Inventor.
 Samuel Sykes
 by Dyer, Beader & Co.
 Attys.

UNITED STATES PATENT OFFICE.

SAMUEL SYKES, OF PORTLAND, OREGON.

IMPROVEMENT IN DEVICES FOR DETACHING HORSES.

Specification forming part of Letters Patent No. **143,428**, dated October 7, 1873; application filed June 14, 1873.

To all whom it may concern:

Be it known that I, SAMUEL SYKES, of the city of Portland, in the county of Multnomah and State of Oregon, have invented a new and useful Tug-Fastener; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, made a part of this specification.

This invention is designed to permit the tug or trace to be easily attached to the whiffletree in such a manner as to avoid the probability of accidental separation; and consists mainly in the combination of a peculiar casting, adapted to be attached to the end of the whiffletree, with a longitudinally-moving headed rod of peculiar construction and a spring, as will be fully described hereinafter.

In the drawings, Figure 1 represents a side elevation of my invention as applied to a whiffletree; Figs. 2 and 3, a sectional elevation of one end; and Fig. 4, a transverse section on the line *x x*, Figs. 2 and 3.

To enable others skilled in the art to make and use my invention, I will now proceed to fully describe its construction.

A represents the whiffletree proper, constructed generally in any suitable manner and of any proper size, which is provided at each end with the casting B, as shown. This casting is provided preferably with the arms *b b*, which lie in proper grooves in the whiffletree A, and with a cylindrical portion, *b¹*, having a diaphragm or partition, *b²*, with central openings, and arms *b³ b³* with notches *b⁴*, as shown. C represents a rod, provided at one end with a head, *c*, and at the other with a projecting key, *c'*, as shown. *d* represents a washer upon the rod C, which is held in place by means of any suitable pin, *d'*, as shown. *e* represents a

spring inclosing the rod C, and *e'* a disk, also upon the rod, which is rigidly secured to the outer end of the cylindrical part of the casting B, as shown.

The parts, when united together, are represented in Fig. 1, the rod C resting within the casting B, and a suitable socket in the whiffletree A, and being adapted to move longitudinally, as shown.

The operation is as follows: When it is desired to attach the trace to the whiffletree the rod C is pulled out from the end of the casting—the spring yielding to permit this movement—until the key *c'* has passed through the opening in partition *b²*, when the rod C may be revolved so that the key will be out of line with its slot, by which means the return of the rod, through the action of the spring, is prevented. The eye of the trace having been slipped over the head of the rod, it is turned backward until its key comes in line with its slot, when it will be drawn inward by the action of the spring until the head *c* rests in the notches *b⁴* of the arms *b³*. In this position it will be observed that the trace is securely held, without the possibility of accidental displacement.

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

1. The combination of the casting B, having a slotted partition, with the longitudinally-moving headed rod, having a key, as set forth.

2. The combination of the whiffletree A, casting B, rod C having key *c'*, washer *d*, spring *e*, and disk *e'*, combined and arranged as described, for the purpose set forth.

SAMUEL SYKES.

In presence of—

CHARLES GARDNER,
O. F. BELL.