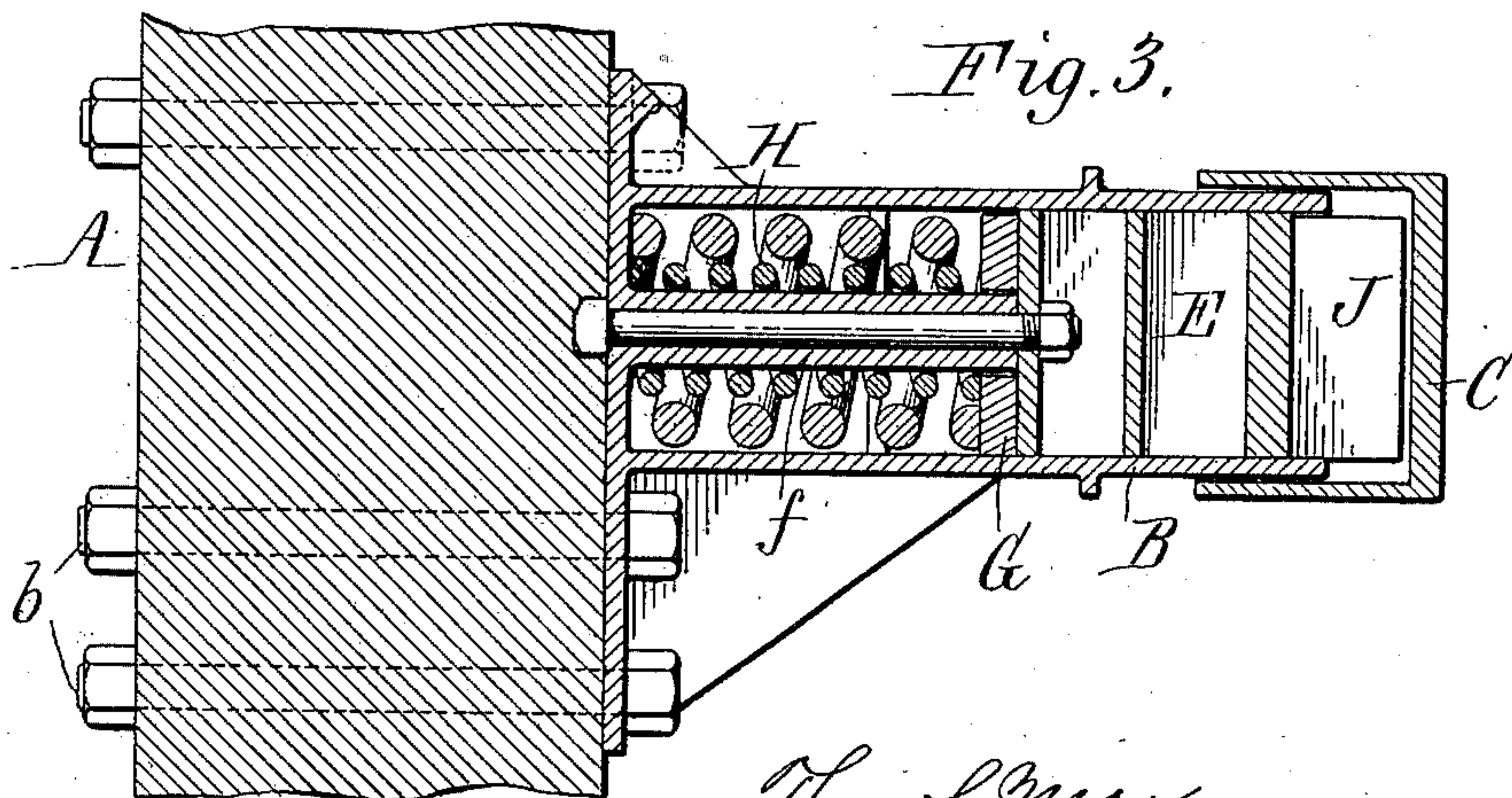
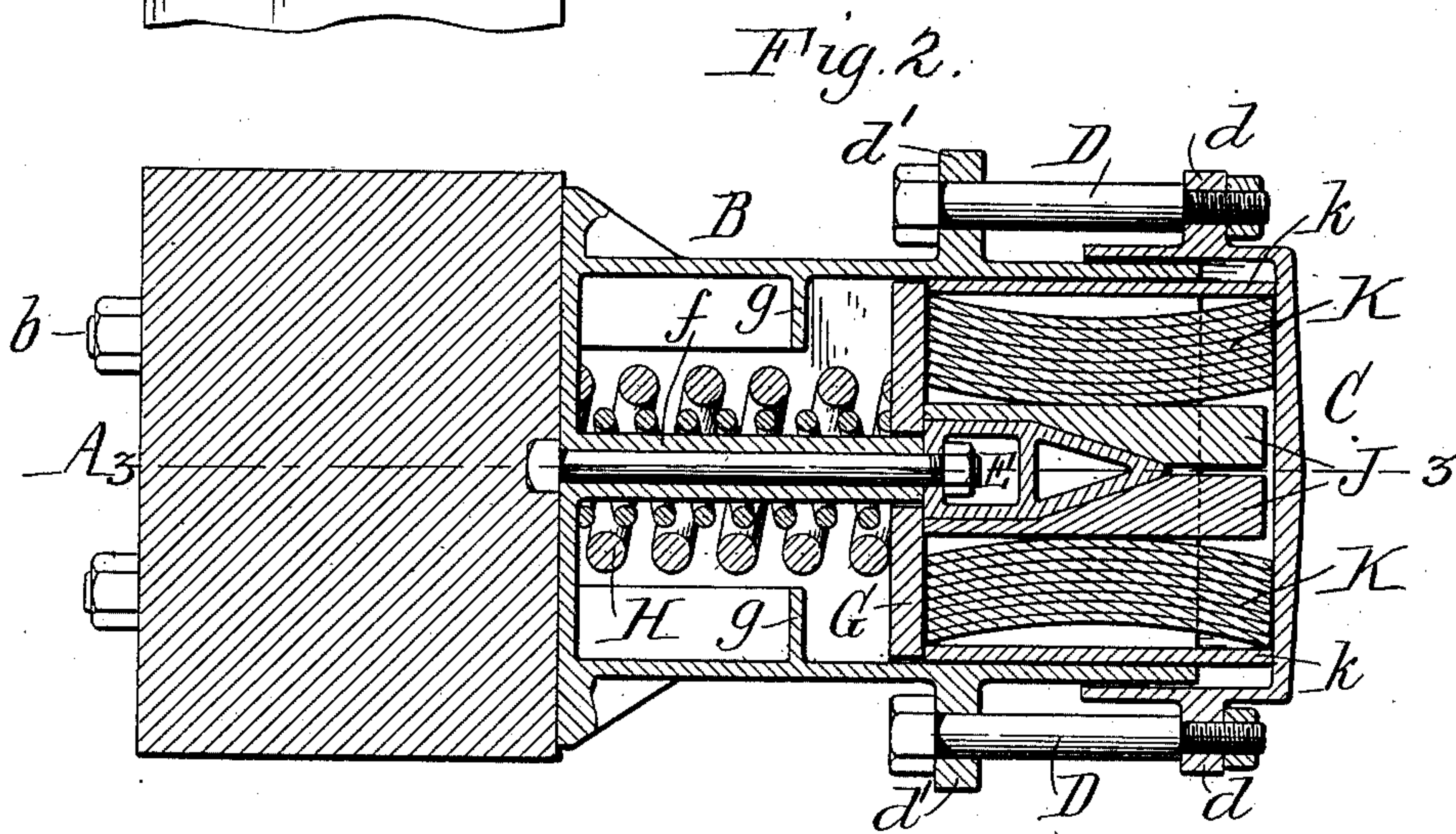
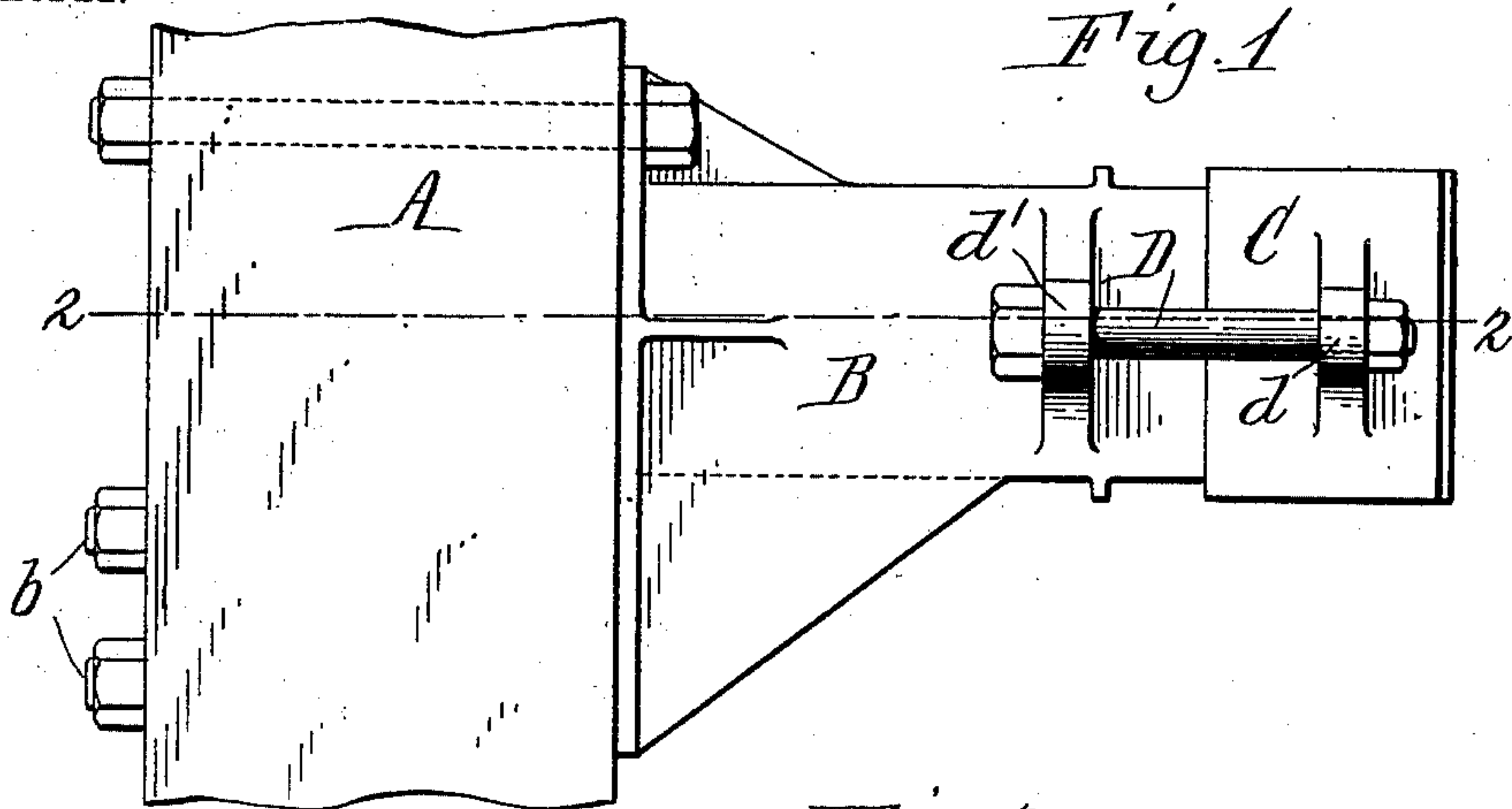


No. 737,858.

PATENTED SEPT. 1, 1903.

T. L. McKEEN:
RAILWAY SIDING BUFFER.
APPLICATION FILED FEB. 16, 1903.

NO MODEL.



Witnesses:
E. A. Volk.
P. W. Rumer.

Thos. L. McKeen Inventor.
By Wilhelm Sommer.
Attorneys.

UNITED STATES PATENT OFFICE.

THOMAS L. MCKEEN, OF EASTON, PENNSYLVANIA.

RAILWAY-SIDING BUFFER.

SPECIFICATION forming part of Letters Patent No. 737,858, dated September 1, 1903.

Application filed February 16, 1903. Serial No. 143,495. (No model.)

To all whom it may concern:

Be it known that I, THOMAS L. MCKEEN, a citizen of the United States, residing at Easton, in the county of Northampton and State of Pennsylvania, have invented new and useful Improvements in Railway-Siding Buffers, of which the following is a specification.

This invention relates to a friction-buffer for railway sidings and track ends.

The object of the invention is to provide a buffer of the maximum capacity which is of simple, strong, and compact construction.

In the accompanying drawings, Figure 1 is a side elevation of a buffer embodying the invention. Fig. 2 is a horizontal section thereof in line 2 2, Fig. 1. Fig. 3 is a vertical section thereof in line 3 3, Fig. 2.

Like letters of reference refer to like parts in the several figures.

A represents the upper portion of the backing timber or structure for the yielding or cushioned buffer-head, and B represents the box or shell which incloses the buffer-springs and friction device. The spring-box may be of any suitable form giving the necessary strength and is firmly secured to the backing structure by bolts *b* or in any other suitable manner. The box shown is of rectangular shape in cross-section and has an open outer end.

C represents the buffer-head, which is in the form of a cap and incloses the outer open end of the spring-box. The buffer-head is provided with lateral lugs *d*, in which are secured retaining-bolts D, which pass through and slide in holes in lugs *d'*, projecting from the sides of the spring-box. The bolts act as guides for the buffer-head in its longitudinal movements and limit the outward movement of the head.

E represents a wedge-block, which in the construction shown is secured to the forward end of a stationary stem or rod *f*, projecting forwardly from the central portion of the rear wall of the spring-box.

G represents a transverse follower or plate, which is arranged to slide longitudinally in the spring-box and is provided with a central hole, through which the stem *f* passes. The outward movement of the sliding plate is limited by the wedge-block and its inward

movement by shoulders *g*, projecting inwardly from the side walls of the spring-box.

H represents coil-springs surrounding the stem *f* between the rear end of the spring-box and sliding follower G.

J represents two friction-blocks which are arranged longitudinally adjacent to each other in the spring-box in front of the sliding follower G and are provided on their inner sides with oppositely-inclined faces which are in frictional contact with the inclined faces of the wedge-block. Between the friction-blocks J and the sides of the spring-box are arranged two sets of spring-plates or flat springs K, which abut at their inner and outer ends against the sliding follower G and front of the buffer-head. The spring-plates are preferably bowed inwardly, and the central portion of the inner spring-plate of each set bears against the adjacent friction-block. A wear or friction plate *k* is preferably interposed between each set of spring-plates and the adjacent side wall of the spring-box. These plates have extended flat surfaces in frictional contact with the sides of the spring-box and prevent the spring-plates from cutting or wearing the spring-box. When the buffer-head is moved inwardly or rearwardly by the impact of a car or other object striking the same, the friction-blocks, spring-plates, and wear-plates are carried inwardly with it and force the sliding follower G inwardly against the action of the coiled springs. In their inward movement the friction-blocks are spread or forced apart by the wedge-block and compress or place the spring-plates under tension, so that the force of the impact is taken by both the coil-springs and spring-plates. When the pressure on the buffer-head is relieved, the coil-springs return the follower, wedge-blocks, spring-plates, and wear-plates to their normal position.

I claim as my invention—

1. The combination of a spring-box having an open end, a telescoping buffer-head closing said open end of the spring-box, a wedge, co-operating friction-blocks which are spread laterally by said wedge when said buffer-head is moved inwardly, spring-plates arranged between said friction-blocks and the sides of said spring-box and which are strained by the

lateral movement of said friction-blocks, and a longitudinally-compressible coil spring or springs, substantially as set forth.

2. The combination of a spring-box having
5 an open end, a telescoping buffer-head closing said open end of the spring-box, a stationary wedge in said spring-box, friction-blocks movable with said buffer-head and adapted to be spread apart by said wedge, a follower movable with said buffer-head, spring-plates bearing against said friction-blocks between said

buffer-head and follower and movable with the same, and a longitudinally-compressible coil spring or springs acting against said follower, substantially as set forth. 15

Witness my hand this 13th day of February, 1903.

THOMAS L. McKEEN.

Witnesses:

J. HOMER REED,
WM. G. BENDER.