

No. 703,255.

Patented June 24, 1902.

N. C. HANSON.
TONGUE BUCKLE.

(Application filed Dec. 14, 1901.)

(No Model.)

Fig. 1.

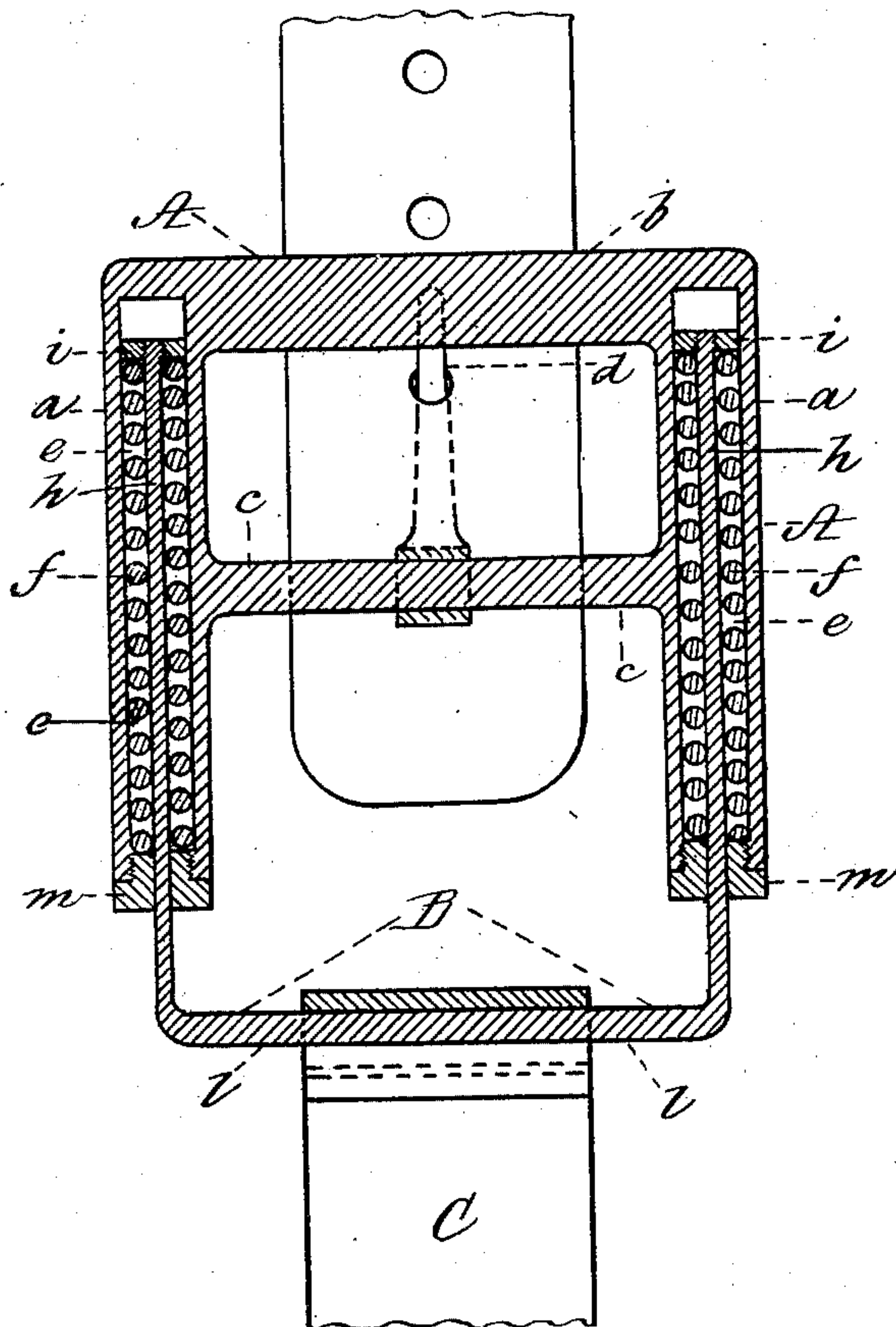
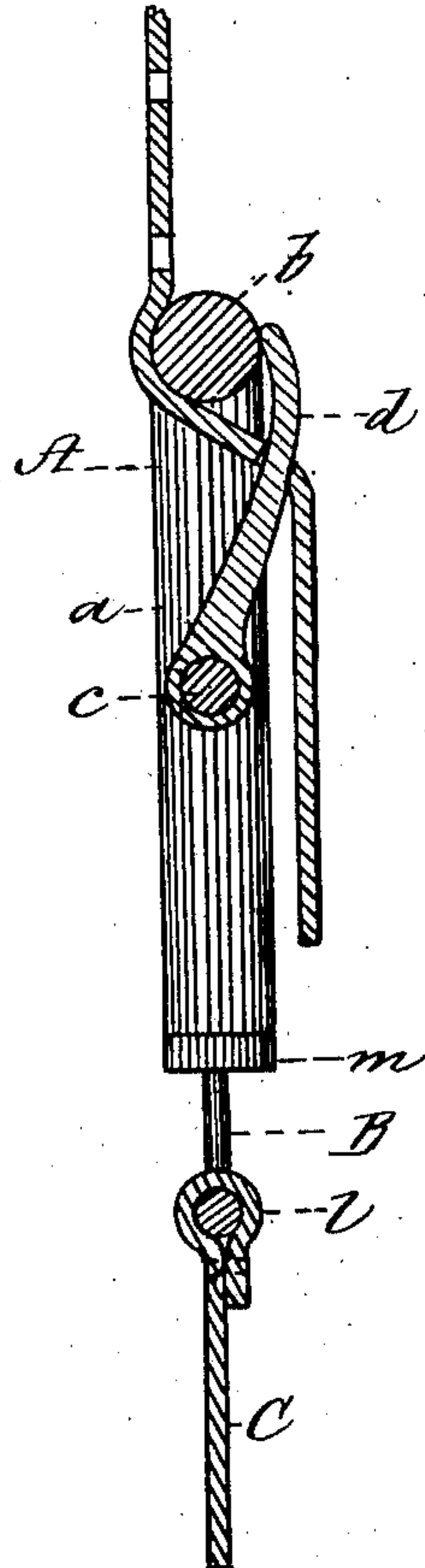


Fig. 2.



Witnesses,

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UNITED STATES PATENT OFFICE.

NATHAN C. HANSON, OF MEDFIELD, MASSACHUSETTS, ASSIGNOR OF ONE-HALF TO ABBOTT B. COLBURN, OF WESTWOOD, MASSACHUSETTS.

TONGUE-BUCKLE.

SPECIFICATION forming part of Letters Patent No. 703,255, dated June 24, 1902.

Application filed December 14, 1901. Serial No. 85,962. (No model.)

To all whom it may concern:

Be it known that I, NATHAN C. HANSON, of Medfield, Norfolk county, Massachusetts, have invented certain Improvements in Tongue-Buckles, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is a longitudinal vertical section through a tongue-buckle constructed in accordance with my invention. Fig. 2 is a transverse vertical section through the same.

My present invention relates to that class of spring attachments intended for application to various devices in the industrial arts for relieving the constant or periodical strain, resistance, vibration, or jar incident to their manifold uses—for instance, trace connections between whiffletrees and hames or collars of harness, shaft-tugs, surcingle for horses' coverings, belts, shoe-fasteners, stocking and skirt supporters, &c.; and this invention consists in a tongue-buckle in which all of its portions, excepting the tongue—viz., the two opposite parallel side members, the cross-bar which unites them at the extremity of each of said members contiguous thereto, and the tongue-bar—are formed integral with each other, in combination with springs located within the side members, a bent arm for operating said springs and to which arm is attached the strap, webbing, or other connection through which the tension or strain is communicated, the construction of my said tongue-buckle being hereinafter described and specifically claimed.

In the said drawings, A represents my tongue-buckle, which differs from a "clasp-buckle" in the following particulars, viz: The clasp-buckle has in its construction a clamping-bar, (usually serrated,) which is pivoted to the slide, between which passes the upper strap of a suspender, which is clamped when its length is adjusted and unclamped to admit of the taking up or letting out of the same. A clasp-buckle of said construction, while it answers for suspenders and other devices where but little resistance or tension is experienced, is not sufficiently strong to meet the requirements when applied to devices subjected to severe strains. My tongue-buckle

is endowed with the necessary strength to withstand the severest tests to which it may be applied, and to this end I construct in one and the same homogeneous piece the portions of the body of the buckle—viz., the two parallel side members *a a*, the transverse bar *b*, connecting their contiguous ends, and the cross-bar *c*, to which the tongue *d* is pivoted. By thus forming all of the parts of the buckle in one (integral) piece it possesses the required firmness, strength, and rigidity to be competent to fulfil its purpose in the various situations in which it may be placed and to give its connections the resiliency necessary to compensate for and in a great measure to gradually overcome the strain of sudden pulls and constantly-recurring vibrations experienced thereby I form tubular recesses *e e* in the members *a a* and locate coiled springs *ff* therein, which springs are alternately compressed and allowed to return to their normal position by the action of a bent arm B, to which the strap or connection C is secured. Said arm has two parallel side members *h h*, which enter the recesses and springs in the direction of their longitudinal axes, and for convenience of construction and to facilitate the application and removal of these springs I provide the end of each member *h*, contiguous to its transverse bar *b*, with a screw-thread, over which is turned a threaded block *i*, and in the end of each recessed member *a* of the buckle, contiguous to the connecting portion *l* of the bent arm, I turn a screw-nut *m* to close the same after the members *h h* of the arm are properly located therein.

The transverse bar *b* of the buckle is cast solid excepting at its opposite ends, where the recesses *e e* are extended thereinto to afford space for the play of the blocks *i i* on the return of the springs *ff* to their expanded position when allowed to assert themselves as the strain or resistance is periodically relieved.

In an application for Letters Patent made by me simultaneously herewith I have shown and generally referred to a tongue-buckle similar in construction to that within described; but in said simultaneous application I have not claimed said tongue-buckle,

except as an element in a combination with certain other coacting devices.

I claim—

1. A tongue-buckle comprising the following instrumentalities—to wit, two parallel side members *a a*, a transverse bar *b* uniting their contiguous ends and a tongue-bar *c* formed integral with each other, in combination with a tongue *d*, tubular recesses *e e* in the members *a a*, springs *f f* located therein and a bent arm B having three members *h h l*, the two parallel side members *h, h* of which enter the recesses *e e* centrally in the direction of the longitudinal axes of the springs, constructed, arranged and operating as described.

2. In a tongue-buckle, the members *a, a, b* and *c* cast integral with each other, recesses

e, e, within the members *a, a* and springs *f, f* located therein, in combination with a bent arm B having side members *h h* which enter the recesses *e e* and are located within the longitudinal axes of the springs, blocks *i i* turned over the ends of the members *h h* contiguous to the transverse bar *b* of the buckle, and screw-nuts *m m* for closing the ends of the tubular members *a a* of the buckle contiguous to the member *l* of the bent arm—all specifically constructed, arranged and operating as set forth.

Witness my hand this 9th day of December, 1901.

NATHAN C. HANSON.

In presence of—

N. W. STEARNS,

A. F. STEARNS.