L. L. THOMAS.

BUCKLE.

APPLICATION FILED MAR. 14, 1908.

935,706.

Patented Oct. 5, 1909.

2 SHEETS—SHEET 1.

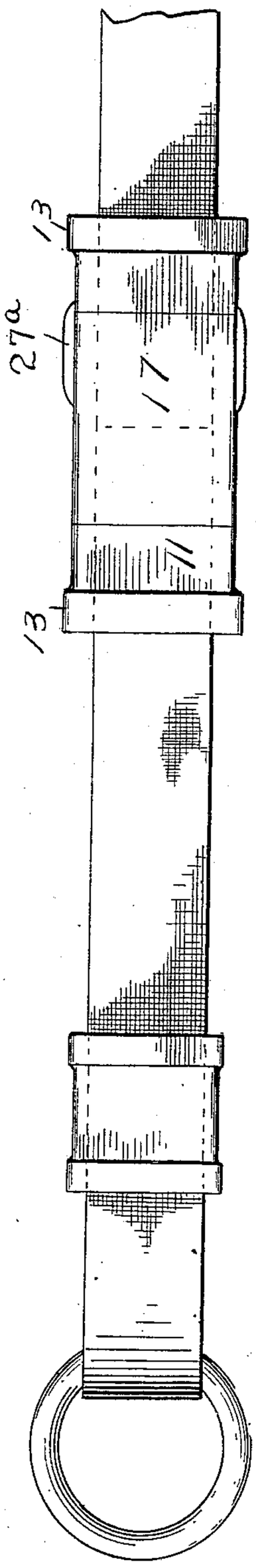

Fig. 1.

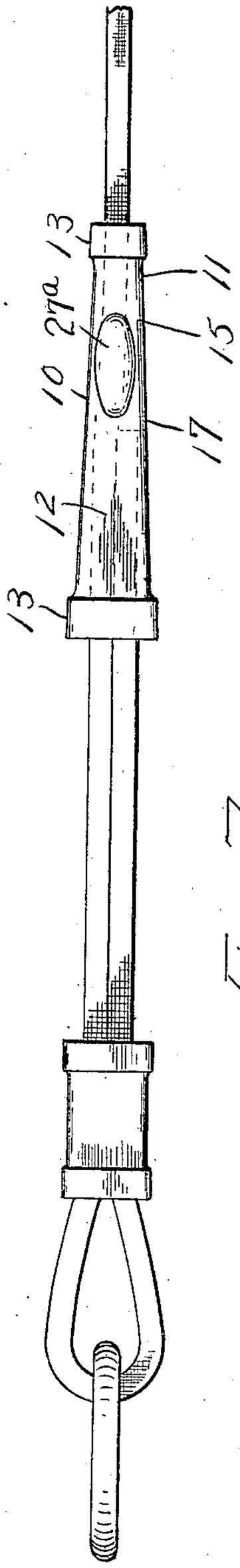

Fig. 2.

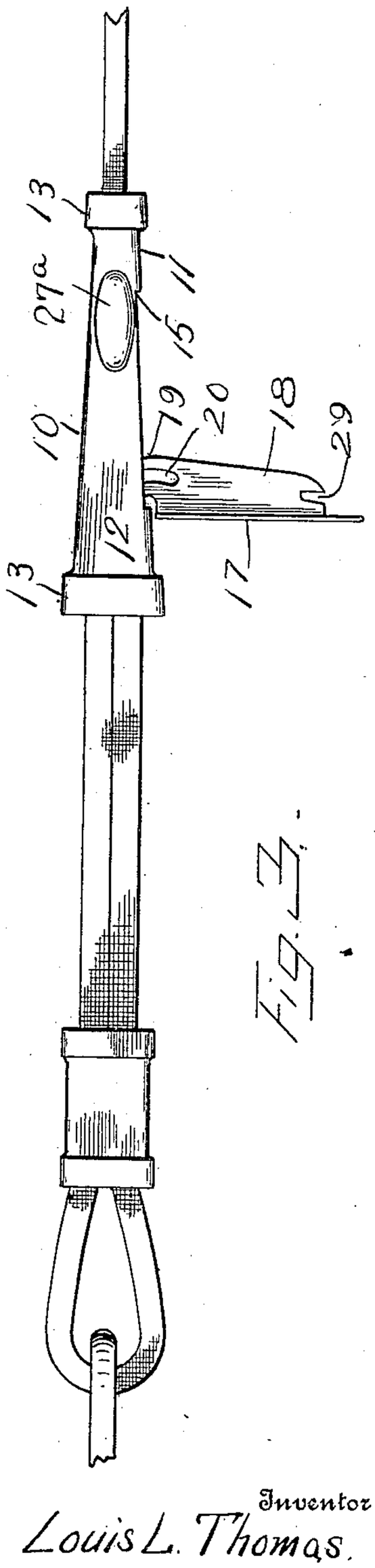

Fig. 3.

Witnesses

J. C. Simpson.

F. G. Smith.

Inventor

Louis L. Thomas.

By Dandelet & Landers

Attorneys

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2 SHEETS—SHEET 2.

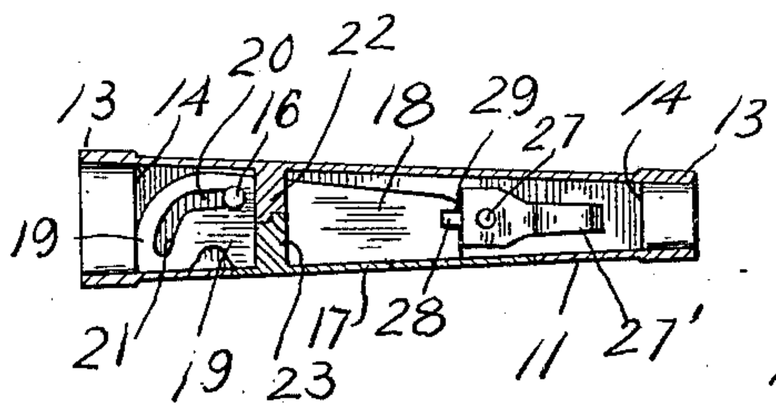

Fig. 4.

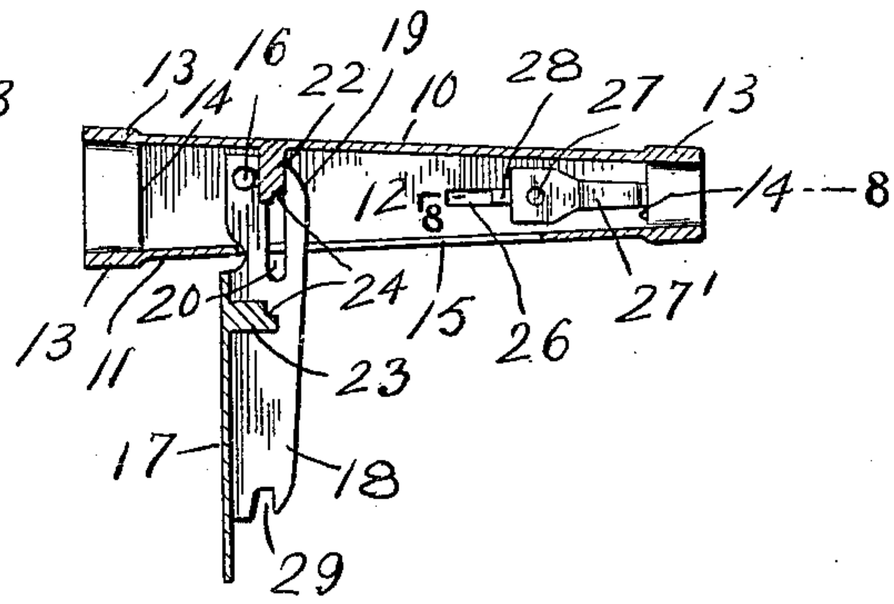

Fig. 5

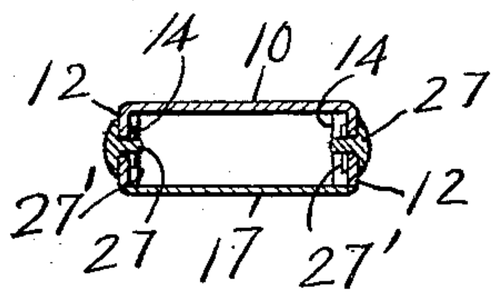

Fig. 6.

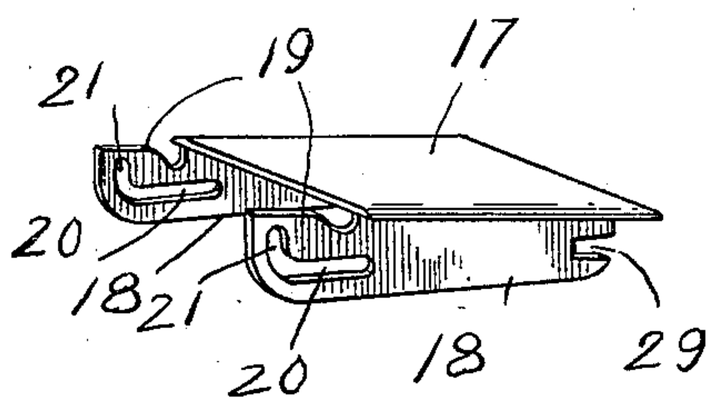

Fig. 7

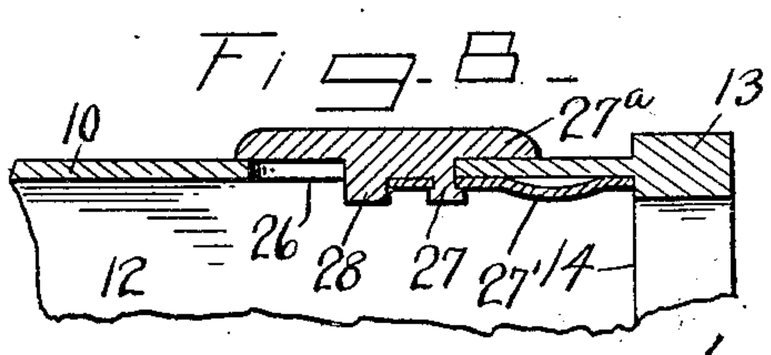

Fig. 8.

Witnesses

J. C. Simpson.

H. G. Smith.

Inventor

Louis L. Thomas.

By Thomas Landers

Attorneys

UNITED STATES PATENT OFFICE.

LOUIS L. THOMAS, OF STATE LINE, WISCONSIN.

BUCKLE.

935,706. Specification of Letters Patent. Patented Oct. 5, 1909.

Application filed March 14, 1908. Serial No. 421,159.

To all whom it may concern:

Be it known that I, LOUIS L. THOMAS, a citizen of the United States, residing at State Line, in the county of Vilas, State of Wisconsin, have invented certain new and useful Improvements in Buckles; and I do hereby 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.

This invention relates to buckles and has for its object to provide a buckle which may be utilized in securing two straps together, securing together the ends of a single strap, or forming in a single strap a loop.

The buckle embodied in my invention comprises, broadly speaking, a box sleeve for the reception of the strap or straps, and a hinged leaf forming a portion of one wall of the sleeve and provided with a stud which, when the leaf is folded, projects through an opening in the strap or straps, the opposite wall of the sleeve being also formed with a stud which coöperates with the stud upon the leaf.

One of the novel features of my invention, resides in the provision of a means for securely holding the sleeve folded or closed so as to prevent accidental movement of the same to release the straps.

Another novel feature of the invention resides in shouldering the studs so that when the leaf is folded, the studs will practically interlock at their ends, one strap being in this manner braced by the other.

In the accompanying drawings, Figure 1 is a plan view of the buckle applied to a strap to form a loop in the strap, Fig. 2 is an edge view of the parts shown in Fig. 1, Fig. 3 is a similar view but showing the leaf of the buckle open, Fig. 4 is a longitudinal sectional view through the buckle, the leaf being shown closed, Fig. 5 is a view similar to Fig. 4 but showing the leaf open, Fig. 6 is a transverse sectional view taken in a line with the lugs upon the slides for holding the leaf closed, and, Fig. 7 is a detail perspective view of the leaf detached from the body of the buckle. Fig. 8 is a section on the line 8—8 of Fig. 5.

As shown in the drawings, and as heretofore stated, the buckle comprises a box sleeve formed of a wall 10, a wall 11, and side walls 12, the ends of the sleeves being of course open and the walls 10 and 11 being converged in the direction of one open end. The sleeve is preferably formed in each end with an integral strengthening collar 13 which has formed upon its inner face and at each end a slight protuberance 14, these protuberances serving to prevent the edges of the strap or straps interfering with certain hinged connection which will now be described. A rectangular opening 15 is formed in the wall 11 of the sleeve and formed upon the inner faces of the walls 12 at points substantially in a line with one end edge of the opening, are pivot studs 16. A leaf 17 is designed to close the opening and this leaf is formed adjacent each side edge with a right angularly extended flange 18, the two flanges being extended beyond one end edge of the leaf as indicated at 19 and being formed in their said extended portions each with a slot 20 which slots are extended longitudinally for a greater portion of their length and are thence directed to extend at right angles as at 21. In connecting the leaf 17 to the body of the sleeve, the pivot studs 16 are engaged in these slots 20, a hinged connection being in this manner secured. In connection with the description of this hinged connection between the leaf 17 and the body of the sleeve, it will be understood that owing to the peculiar formation of the slots 20 the leaf may be swung away from the opening 15 in the sleeve. A stud 22 is formed upon the inner face of the wall 10 of the sleeve and a stud 23 is formed upon the inner face of the leaf 17, each of the studs being formed at its end with a shoulder 24 and the two studs being so located that when the leaf is swung to closed or folded position, the shouldered ends of the studs will practically be interlocked.

To buckle the strap, to form a loop in the strap, one end of the strap is inserted through the sleeve and the stud 22 upon the inner face of the wall of the member engaged through an opening formed in the strap. The other end of the strap is then inserted through the sleeve, the leaf 17 being swung to open position, and after having been adjusted to form a loop of the proper size and to bring an opening formed in it to proper position, the strap is secured at this adjustment by folding down the leaf 17 which will serve to project the stud 23 upon the

leaf, into the said opening in the last mentioned end of the strap.

I will now describe the means which I have devised for holding the leaf in folded or closed position. A slot 26 is formed to extend longitudinally in each wall 12 of the sleeve and extending through each slot is a rivet stud 27 formed upon a slide button 27ª which moves along the outer surface of the wall 12 in which the slot is formed. These rivet studs are passed also through leaf springs 27′ which move along the inner surfaces of the wall 12 and which are formed to bear against the said surfaces of the wall, it being understood that the said leaf springs serve to frictionally hold the slides against accidental movement and also serve to hold them upon the said walls 12. Formed upon each of the slide buttons and projecting inwardly is a stud 28 which projects through the slot in the respective wall 12 and is designed for engagement in a notch 29 formed in the outer end of the corresponding flange 18, this engagement serving to hold the leaf 17 against swinging movement to release the buckle strap.

From the foregoing description of my invention it will be seen that while the leaf 17 is folded or closed, the straps or the ends of a single strap engaged in the box sleeve, will be securely held and it will further be understood that the buckle may be readily opened by sliding the slide buttons in the direction of the smaller end of the sleeve so as to disengage the studs 28 from the notches 29, the leaf 17 being then swung upon its hinge connection with the sleeve.

What is claimed, is:—

1. A buckle comprising a strap receiving member formed interiorly with a stud, and a hinged leaf formed also with a stud which engages end to end and interlocks with the first mentioned stud when the leaf is folded.

2. A buckle comprising a strap receiving member formed interiorly with a stud, a hinged leaf formed also with a stud which engages end to end with the first mentioned stud when the leaf is folded, the said leaf being formed with notched portions, slides mounted on the strap receiving member which are formed with studs which engage in the notches in the said notched portions for holding the leaf in folded position, and springs connected with the slides and bearing frictionally against the strap receiving member to prevent accidental movement of the slides.

3. A buckle comprising a casing open at its ends, a stud on one of the walls of the casing on the inside thereof, the opposite wall of the casing having an opening, and a leaf hinged in said opening and carrying a stud which engages end to end and interlocks with the first mentioned stud.

In testimony whereof, I affix my signature, in presence of two witnesses.

LOUIS L. THOMAS.

Witnesses:
ALEX. HIGGINS,
E. H. THOMAS.