J. H. ANTHON.

SHOE LACING DEVICE.

APPLICATION FILED MAR. 19, 1921.

1,385,238.

Patented July 19, 1921.

Fig. 1.

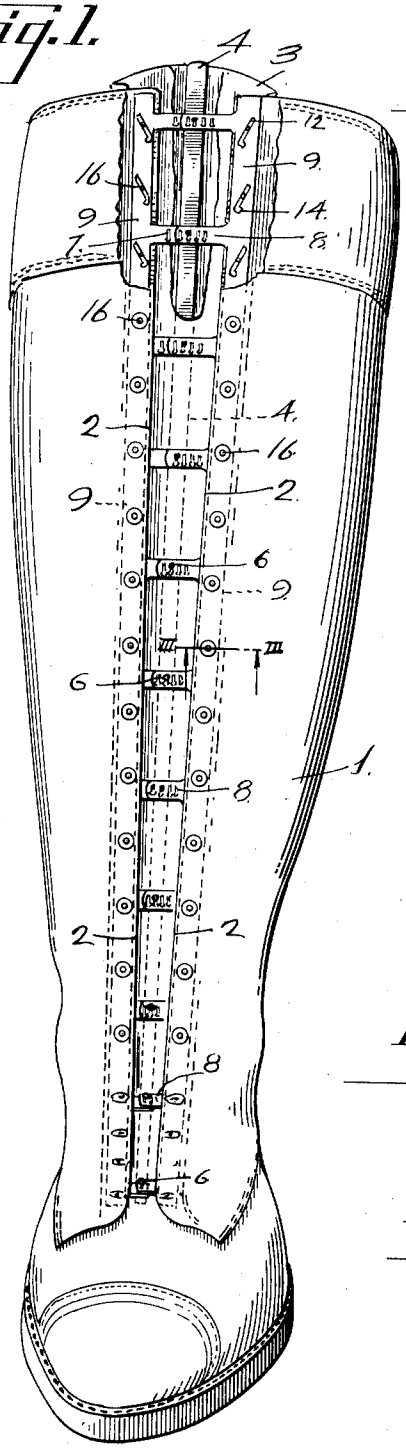


Fig. 2.

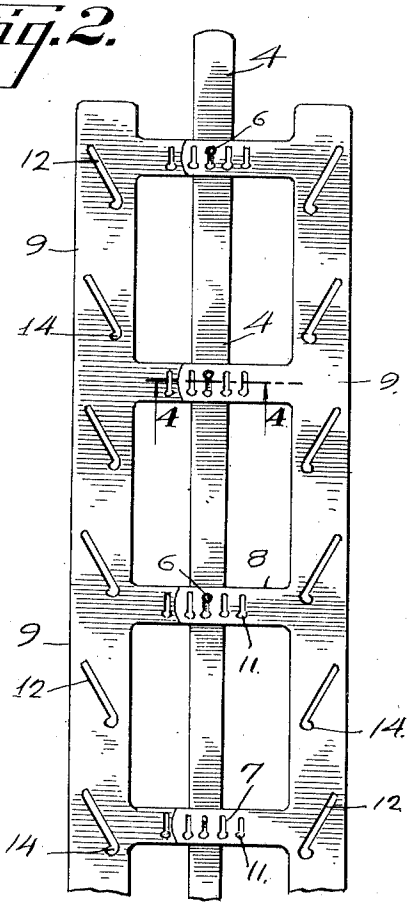


Fig. 3.

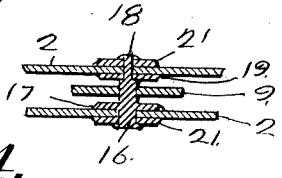
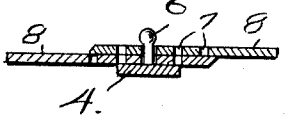


Fig. 4.



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UNITED STATES PATENT OFFICE.

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SHOE-LACING DEVICE.

1,385,238. Specification of Letters Patent. Patented July 19, 1921.

Application filed March 19, 1921. Serial No. 453,856.

To all whom it may concern:

Be it known that I, JOHN H. ANTHON, a citizen of the United States, residing in the city and county of San Francisco and State of California, have invented a new and useful Improvement in Shoe-Lacing Devices, of which the following is a specification.

My invention relates to improvements in mechanical shoe lacing devices wherein a slotted member slidably mounted within each stay of a shoe operates in conjunction with pins in said stays for moving said stays toward each other to fasten said shoe around the limb of a wearer.

The primary object of the present invention is to provide a new and improved lacing for shoes.

A further object of the present invention is to provide a new and improved device of the character described having improved means for providing a uniform tension of the uppers of a shoe around the limb of a wearer.

A still further object is to provide a new and improved shoe lacing adapted to adjustably and quickly fasten a shoe having a long upper portion requiring a large number of eyelets or similar devices.

Another object is to provide an improved shoe lacing which may be quickly fastened or detached.

I accomplish these and other objects by means of the improved device disclosed in the drawings forming a part of the present specification, wherein like characters of reference are used to designate similar parts throughout the said specification and drawings, and in which—

Figure 1 is a broken elevation of a shoe of the long or hiking type disclosing my improvement attached thereto.

Fig. 2 is an enlarged broken view of the device detached from a shoe.

Fig. 3 is a still further enlarged transverse sectional view taken on line 3—3 of Fig. 1 in the direction indicated; and

Fig. 4 is an enlarged broken transverse sectional view taken on line 4—4 of Fig. 2 in the direction indicated.

Referring to the drawings the numeral 1 is used to designate a shoe having the usual stays 2 and tongue 3. Within the tongue 3 is mounted what I term a tongue member 4 having a plurality of headed pins 6 projecting through said tongue 3 and detachably engaging any one of a plurality of slots 7, within lateral extensions 8 of slotted stay portions or members 9 slidably mounted for longitudinal movement within each stay 2, said slot 7 also having enlarged portions 11 to permit passage of said headed pins 7 for disengagement of said pins 7 from said extensions 8, the purpose of which will hereinafter be more fully set forth.

The stay portions or slotted members 9 are each provided with a plurality of inclined slots 12 having offset locking portions 14 therein, the slots of one member 9 being oppositely inclined to the slots in the opposite member.

Pins 16 are provided at regular intervals and project through the stay portions 2 and the inclined slots 12 of the members 9 therein.

These pins 16 may be made with a flange 17 and a reduced portion 18 to receive a washer 19 upon which flange 17 and washer 19 the opposite layers of the stays 2 of the shoe 1 are laid, with the ends of the pin 16 projecting therethrough. The said layers of the stays 2 are firmly and rigidly held in position by other washers 21, as disclosed in Fig. 3 of the drawings.

In operation the shoe 1 is placed upon the limb of the wearer and the slotted lateral extensions 8 are detachably connected, by means of the slots 7 and headed pins 6, to the tongue member 4. By pulling upward on the tongue 3 and member 4 therein the slotted members 9 are moved to cause the inclined slots 12 therein to move the pins 16 and stays 2 of the shoe 1 toward each other until the said pins 16 move into the offset locking portions 14 of said slots 12 thereby effectively fastening the upper of the shoe around the limb of a wearer.

A proper fitting of said upper is obtained by connecting such slots 7 of the extensions 8 with the headed pins 6 as will produce a smooth uniform fit, after which a greater and uniform tension is placed on said uppers to draw the stays 2 toward each other as hereinabove described.

The first portion of the upward movement of the tongue member 4 will move the headed pins 6 into the narrower portions of the slots 7 thereby effectively locking said extensions 8 to said tongue member 4.

To remove the shoe the tongue member is pushed downward which will move the pins

6 into the enlarged portions 11 of the slots 7 and the said extensions 8 may be then disengaged from said pins 6.

This will permit the opening of the stays 2 after which the members 9 therein may be manipulated to disengage the pins 16 from the offset locking portions 14 of the slots 12 in the stay members 9.

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

1. The combination with a shoe of a pair of substantially parallel members slidably mounted within the stays of said shoe and detachably connected to each other, each member having slots inclined oppositely to the slots in the opposite member; pins mounted within the stays and slidably engaging the inclined slots of the member in their respective stays; and means for moving the slotted members to cause the inclined slots therein to move the pins and stays toward each other to fasten said shoe.

2. The combination with a shoe of a pair of substantially parallel members slidably mounted within the stays of said shoe and adjustably and detachably connected to each other, each member having slots inclined oppositely to the slots of the opposite member; pins mounted within said stays and slidably engaging the inclined slots of their respective slotted members; and means for moving the slotted members to cause the slots therein to move the pins and stays toward each other to close said shoe.

3. The combination with a shoe of a pair of substantially parallel members slidably mounted within the stays of said shoe and detachably and adjustably connected to each other, each member having slots therein oppositely inclined to the slots of the opposite members each of said slots having offset locking portions; pins mounted within said stays and projecting through slots in their respective members; and means for moving said members to cause the inclined slots therein to move said pins toward each other and into the offset locking portions of the slots to fasten said stays.

4. The combination with a shoe of a member slidably mounted within each stay of said shoe and detachably connected to the other member, and having slots inclined oppositely to the slots in the other member, each of said slots having an offset locking portion therein; pins projecting through the stays and the slots of the member therein; and a member slidably mounted within the tongue of the shoe and operatively connected to the slotted members and arranged to move the same to move the pins of each stay toward each other and into the offset locking portions of the slots to fasten said shoe.

5. The combination with a shoe of a member slidably mounted within the tongue of said shoe; a member slidably mounted for longitudinal movement within each stay of said shoe and arranged for detachable and adjustable connection with the tongue member, each member within said stays having slots therein inclined oppositely to the slots in the other member and pins projecting through each stay and the slots of the member therein, whereby said pins may be actuated to move the stays toward each other to fasten said shoe when the slotted members are moved longitudinally by the tongue member.

6. The combination with a shoe of a member mounted within the tongue of said shoe and having headed pins extending through said tongue; a member mounted for longitudinal movement within each stay of said shoe, each of said members having slots inclined oppositely from the slots in the opposite member and likewise provided with lateral extensions having a plurality of apertures therein to detachably and adjustably engage the headed pins of the tongue member; and pins mounted within each stay and slidably engaging the inclined slots of the members therein whereby said shoe may be fastened around the limb of a wearer when the stay members are moved by the tongue member.

In witness whereof I hereunto set my signature.

JOHN H. ANTHON.