July 28, 1925.

1,547,531

A. L. STAPLES

ROLLER SKATE

Filed Feb. 19, 1925

2 Sheets-Sheet 1

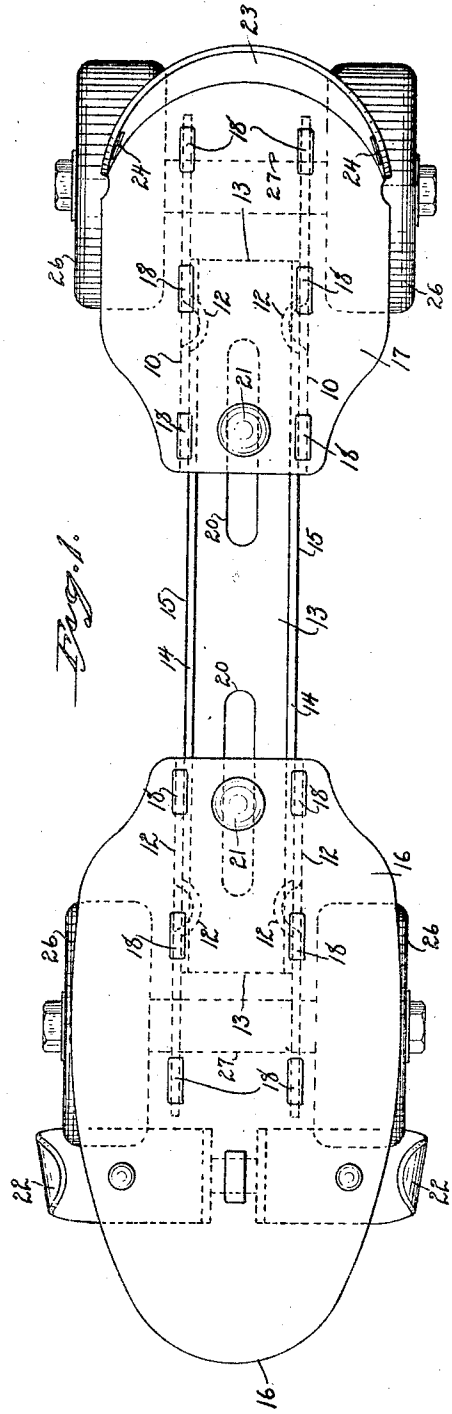

Fig. 1.

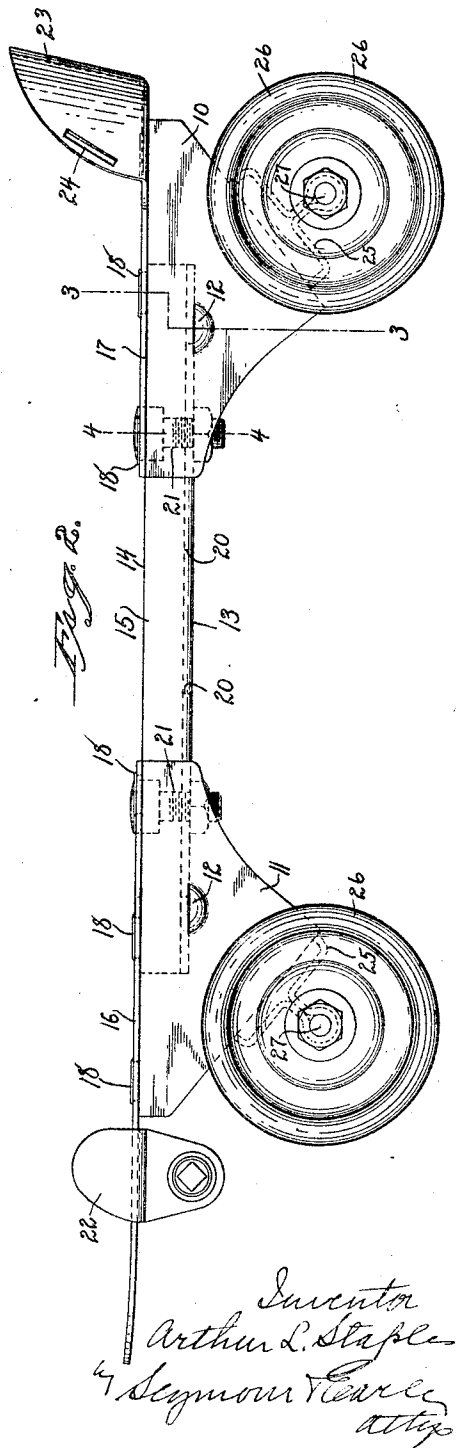

Fig. 2.

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Fig. 3

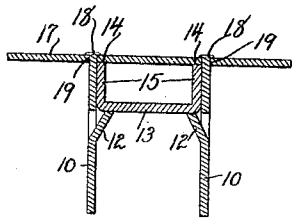


Fig. 4.

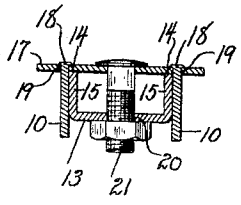


Fig. 5

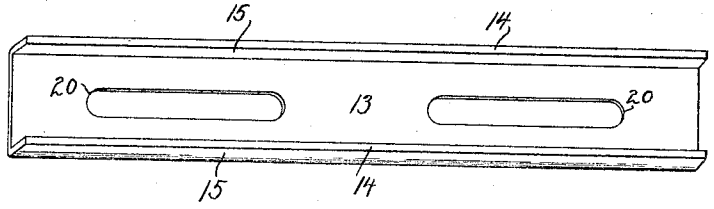


Fig. 6.

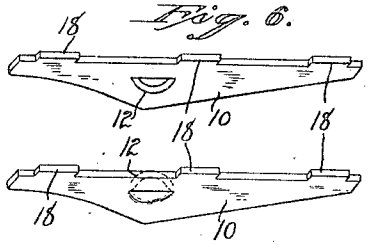


Fig. 7.

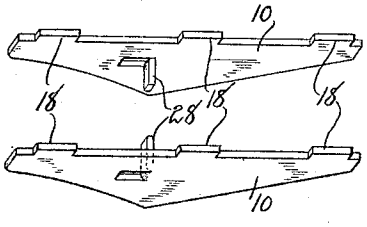
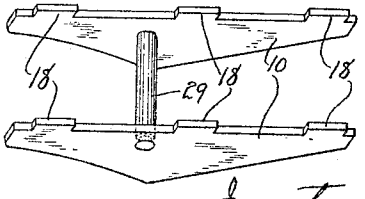


Fig. 8.



Inventor
Arthur L. Staples
by Seymour T. Earle
atty

Patented July 28, 1925. 1,547,531

UNITED STATES PATENT OFFICE.

ARTHUR L. STAPLES, OF NEW HAVEN, CONNECTICUT, ASSIGNOR TO WINCHESTER REPEATING ARMS CO., OF NEW HAVEN, CONNECTICUT, A CORPORATION.

ROLLER SKATE.

Application filed February 19, 1925. Serial No. 10,162.

To all whom it may concern:

Be it known that I, ARTHUR L. STAPLES, a citizen of the United States, residing at New Haven, in the county of New Haven and State of Connecticut, have invented a new and useful Improvement in Roller Skates; and I do hereby declare the following, when taken in connection with the accompanying drawings and the characters of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawings constitute part of this application, and represent, in—

Fig. 1 a plan view of one form which a roller-skate embodying my invention may assume.

Fig. 2 a side view thereof.

Fig. 3 a sectional view on the line 3—3 of Fig. 2.

Fig. 4 a corresponding view on the line 4—4 of Fig. 2.

Fig. 5 a detached, perspective view of the girder.

Fig. 6 a detached, perspective view of the two side-plates of the rear hanger.

Fig. 7 a view corresponding to Fig. 6, showing one of the modified forms which the girder-supporting means may assume.

Fig. 8 a similar view, showing another modified form of girder-supporting means.

My invention relates to an improvement in roller-skates of the so-called "girder" type, the object being to produce, at a reduced cost for manufacture, a superior skate of the type described, constructed with particular reference to simplicity, fewness of parts, lightness, convenience, ruggedness in use.

With these ends in view, my invention consists in a roller-skate characterized by having its truck-hangers furnished with girder-supporting means.

My invention further consists in certain details of construction as will be hereinafter described and particularly pointed out in the claims.

In carrying out my invention, as shown in Figs. 1 to 6 inclusive, the side-plates 10—10 of the rear truck-hanger and the corresponding side-plates 11—11 of the front truck-hanger are cut and inwardly struck to form girder-supporting ledges 12 having straight upper edges upon which the lower face of the girder 13 has sliding support, the said girder-supporting ledges being substantially semi-conical in form, with their straight upper edges parallel with and at a predetermined distance below the upper edges of the said side-plates. This distance is fixed by the thickness of the girder, so that when it is resting upon them, the upper edges 14 of its side-flanges 15 will have sliding contact with the lower faces of the toe-plate 16 and the heel-plate 17, together forming the foot-plate of the skate-structure.

As shown, the side-plates 10 and 11 are formed upon their upper edges with lug-rivets 18 inserted into corresponding slots 19 in the toe- and heel-plates and headed down upon the upper faces thereof, the said side-plates being spaced apart by the width of the girder, so that the outer surfaces of the flanges 15 thereof will have sliding bearing upon the inner faces of the plates, whereby the girder is closely confined as to movement in every direction except longitudinal movement relative to the side-plates of the truck-hangers.

Also, as shown, the girder is provided with two centrally-arranged, longitudinal slots 20 for the reception of clamping-bolts 21, whereby the girder is clamped at its ends to the toe- and heel-plates 16 and 17 in any desired separation thereof from each other. The toe-plate mounts the usual toe-clamps 22, while the upstanding, rear flange 23 of the heel-plate is formed with a slot 24 for the reception of an ordinary skate-strap which is not shown. The skate is also furnished with trucks 25 of any approved design, carrying the customary rollers 26 on axles 27.

In the modified construction shown by Fig. 7, the side-plates 10—10 have integral, girder-supporting lugs 28, turned inwardly at a right angle to the longitudinal axes of the plates and presenting horizontal bearing-surfaces upon which the girder 13 rests. In the modified construction shown by Fig. 8, the plates 10—10 are joined by a transversely-arranged round bar 29, riveted at its ends into the plates in position to support the girder, which rests directly upon it, between the same. In Figs. 7 and 8, I have shown the side-plates of the rear truck-hanger, but it will be understood that the constructions shown apply also to the plates of the forward truck-hanger.

By means of my improved organization and construction of parts, whereby the

girder has sliding support upon the truck-hangers of the skate-structure, the same is greatly simplified, cheapened, reduced in weight and increased in rigidity as well as in ruggedness and durability, since the number of parts is reduced to the minimum, as well as their liability to work loose.

I claim:

1. A roller-skate having a foot-plate, a truck-hanger depending therefrom and having vertically-arranged, parallel sides, a girder extending into the said hanger, and girder-supporting means projecting inwardly from the sides of the said truck-hanger.

2. A roller-skate having a foot-plate, a truck-hanger depending therefrom and having vertically-arranged, parallel sides, a girder extending into the said hanger, and integral, girder-supporting means projecting inwardly from the said sides of the said truck-hanger.

3. A roller-skate having a foot-plate, a truck-hanger depending therefrom and having vertically-arranged, parallel sides, a girder extending into the said truck-hanger, and integral, girder-supporting means struck inwardly from the sides of the said truck-hanger.

4. A roller-skate having a foot-plate, a truck-hanger depending therefrom and comprising two vertical, sheet-metal side-plates spaced apart, a girder extending into the said truck-hanger, and girder-supporting means carried by the said plates in position to hold the said girder against the said plate.

5. A roller-skate having heel- and toe-plates, truck-hangers depending therefrom and having side-plates spaced apart, a girder extending at its ends into the said hangers, and girder-supporting means struck inwardly from the side-plates of the hangers and positioned to hold the girder against the lower faces of the said heel- and toe-plates.

6. A roller-skate having a foot-plate, a truck-hanger rigidly secured thereto and depending therefrom, a girder extending into said hanger, and substantially semi-conical supporting-ledges struck inward from the sides of the hanger, and having edges upon which the girder has sliding movement and which are positioned to hold the same against the lower face of the foot-plate.

7. In a roller-skate, a sole-plate, a heel-plate, a U-shaped extension girder detachably secured under said plates, front and rear axles, and pairs of vertical plates attached to the said sole- and heel-plates for supporting the said axles, said extension girder sliding between said pairs of vertical plates, and means carried by said vertical plates to support said extension girder.

8. A roller-skate having a foot-plate, a hanger rigidly secured thereto and depending therefrom, a girder extending into the said hanger, and supporting-ledges struck inward from the sides of the hanger, and having edges upon which the girder has sliding movement and which are positioned to hold the same against the lower face of the foot-plate.

In testimony whereof, I have signed this specification in the presence of two subscribing witnesses.

ARTHUR L. STAPLES.

Witnesses:

WALTER M. THOMPSON,

ERIK S. PALMER.