(Model.)

# S. E. SHUTE & G. C. STEVENS.

## ROLLER SKATE.

No. 334,992. Patented Jan. 26, 1886.

*Fig. 1.*

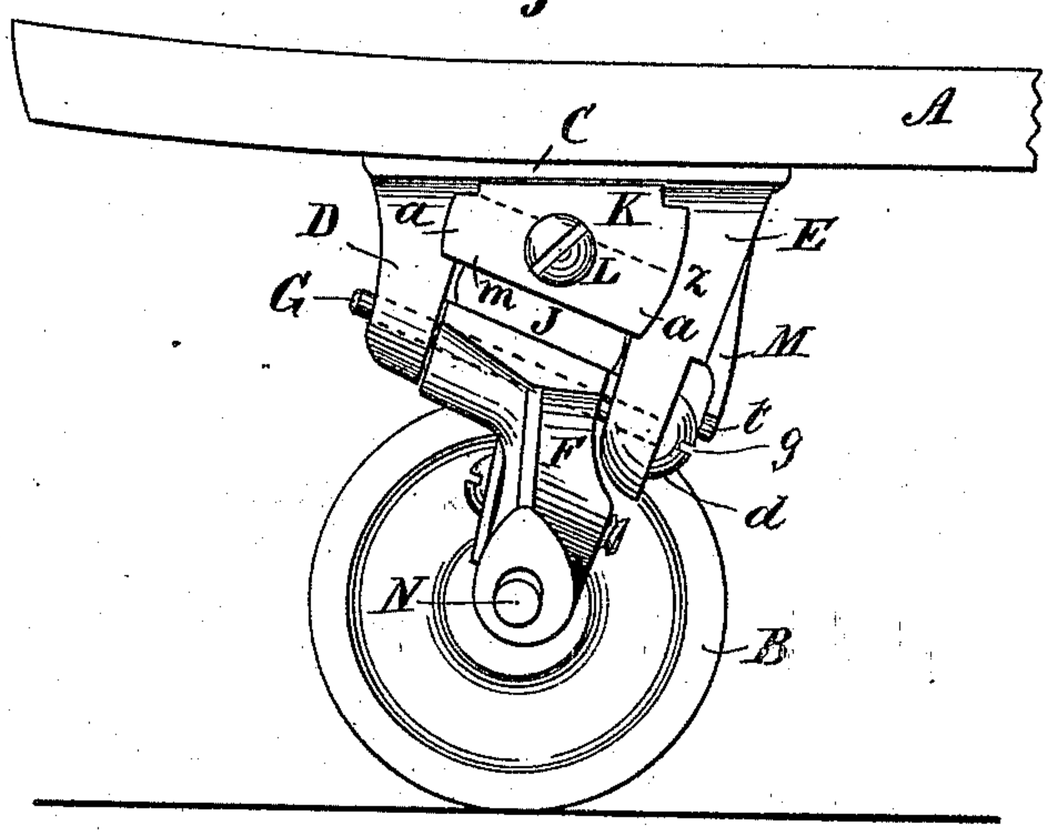



*Fig. 2.*

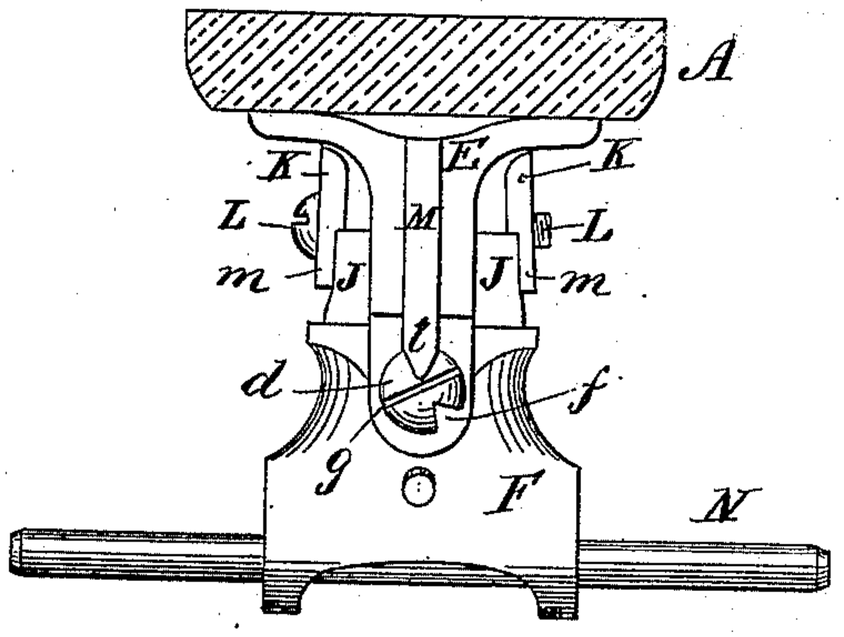



*Fig. 3.*

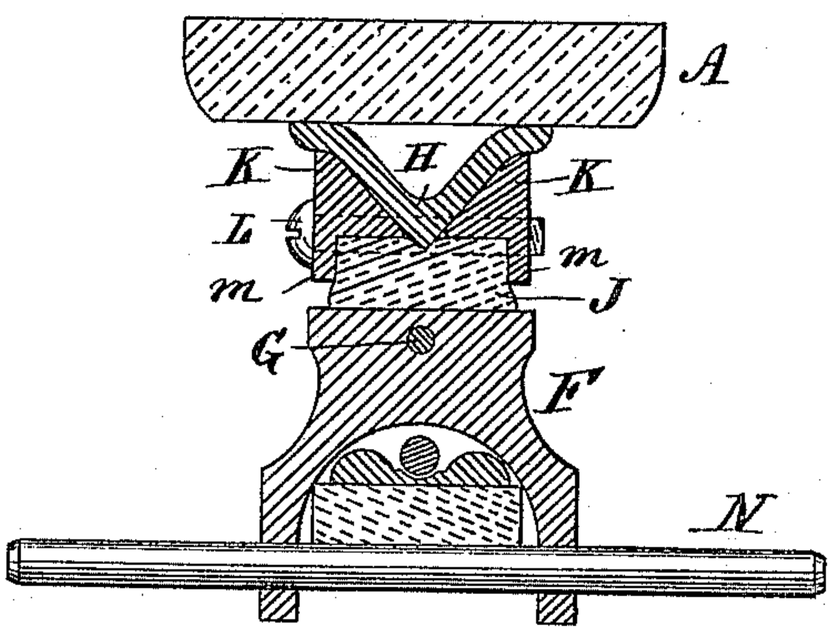
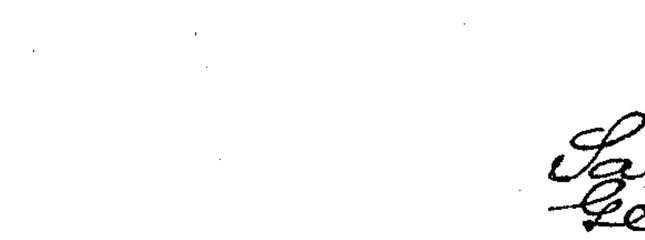



*Fig. 4*




*Witnesses.*

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# UNITED STATES PATENT OFFICE.

SAMUEL E. SHUTE AND GEORGE C. STEVENS, OF RICHMOND, INDIANA, ASSIGNORS TO CHARLES ALBERT SHAW, OF BOSTON, MASS.

## ROLLER-SKATE.

SPECIFICATION forming part of Letters Patent No. 334,992, dated January 26, 1886.

Application filed September 2, 1884. Serial No. 142,038. (Model.)

*To all whom it may concern:*

Be it known that we, SAMUEL E. SHUTE and GEORGE C. STEVENS, of Richmond, in the county of Wayne, State of Indiana, have invented a certain new and useful Improvement in Skates, of which the following is a description sufficiently full, clear, and exact to enable any person skilled in the art or science to which said invention appertains to make and use the same, reference being had to the accompanying drawings, forming a part of this specification, in which—

Figure 1 is a side elevation of the forward running-gear and a portion of the foot-piece; Fig. 2, a rear elevation of the same, the foot-piece being shown in section, and Fig. 3 a vertical transverse section taken on the line of the axle. Fig. 4 is a detached view of the tension devices.

Like letters of reference indicate corresponding parts in the different figures of the drawings.

Our invention relates exclusively to the class of skates known as "parlor" or "roller" skates; and it consists in a novel construction and arrangement of the parts, as hereinafter more fully set forth and claimed, by which a more desirable article of this character is produced than is now in ordinary use.

The nature and operation of the improvement will be readily understood by all conversant with such matters from the following explanation.

In the drawings, A represents the foot-piece and B the trucks, which may be constructed of any suitable materials and of the ordinary form.

Projecting downwardly from a plate, C, attached to the under side of the foot-piece A, there are two arms or brackets, D E, which are arranged in parallelism with each other, and inclined at an angle of about ten degrees to said plate, in the usual manner. A rocking or oscillating bolster, F, is disposed in the lower ends of the arms D E, said bolster being journaled on the bolster-pin G.

Extending downwardly from the plate C, between the arms D E, there is a projection, H, which is V-shaped in cross-section, as best seen in Figs. 3 and 4, and disposed between said arms below said projection and above the top of the bolster F, there is an elastic rubber cushion or spring, J.

A cam-shaped clip, K, is disposed at either side of the arms D E, each of said clips being inclined on its inner face, *x*, to correspond with the inclined side, *i*, of the projection H, and provided at its lower outer edge with a downwardly-projecting lip or flange, *m*. A screw, L, passes loosely through a hole in one of the clips K, and is fitted to work in a correspondingly threaded hole in the opposite clip, a depression or notch being made in the projection H, to receive the body of the screw, as shown by the dotted lines in Fig. 3.

The projection H is highest where it connects with the arm E and lowest at its opposite end, its apex being preferably in parallelism with the top of the bolster F, as shown by the dotted line *z* in Fig. 1. Each of the clips K is also widest or deepest at the end nearest the arm E and narrowest near the arm D, to correspond with the formation of said projection, as also shown in Fig. 1, and is provided at either end with a flange, *a*, which overlaps the arm and assists to hold the clip in proper position.

The bolster-pin G is provided with a head, *d*, having a V-shaped slot, *f*, in its periphery, and also a slot, *g*, for receiving a screw-driver or other implement, by means of which it may be turned when necessary, although the latter slot may be omitted, if desired.

A rearwardly-extending flange, M, is attached to the arm E, being preferably cast integral therewith, and provided at its lower end with a V-shaped projection, *t*, adapted to enter the slot *f* in the head of the bolster-pin G, so that when said pin is turned into position to cause said last-named slot and projection to register the pin may be inserted, after which, by turning it in its seat into the position shown in Fig. 2, it will be prevented from readily escaping.

The flange M may be attached to the arm D, instead of the arm E, and the position of the bolt reversed, if preferred.

As the method of constructing the bolster F and mounting and cushioning the axle N in the same forms the subject-matter of a portion of another application for Letters Patent filed by the said Shute, and which is now pending,

it is not deemed essential to more fully describe this part of the invention.

We have also shown and described but one set of running-gears, (the forward;) but it will be understood that the foot-piece A is designed to be provided with a corresponding set at its rear end, the arms D E of the rear set inclining in the opposite direction to those of the front in the usual manner.

In the use of our improvement it will be obvious that when the screw L is turned in, the clips K will approach each other, thereby causing their inclined sides *x* to ride downwardly on the inclined sides *i* of the projection H or toward the apex of said projection, and the clips to compress the spring J vertically by forcing it onto the bolster F, in a manner which will be readily obvious without a more explicit description. It will also be obvious that as the clips are forced downwardly by being drawn against the inclined sides of the projection H, the spring J will at the same time be grasped by the flanges *m* of the clips and compressed laterally or forced inwardly toward a vertical line drawn through the longitudinal axial line of the bolster-pin G, this double action of the clips on the spring greatly increasing its efficiency.

The screw L and cushion or spring J are so disposed with relation to each other that the screw is embedded in the top of the spring, as shown in Fig. 3, when these parts are in use, thereby preventing the screw from accidentally turning or becoming loose, the surrounding rubber greatly increasing the friction both by actual contact, and also by forcing the body of the screw against the projection H when the screw is loosened.

We do not confine ourselves to the use of the projection *t* for securing the pin G, as other means may be employed, if desired. Neither do we confine ourselves strictly to making said projection V-shaped, although we deem it preferable to do so, and to have it fit the slot *f* nicely, as the pin is thereby more surely prevented from escaping from its seat in the arms. The flanges *a m*, either or both, may also be omitted, if desired. The plate C may likewise be omitted, the arms D E in that case being attached directly to the foot-piece A by any suitable means. When the plate C is omitted, the projection H is constructed as an independent piece and properly secured in position between the arms by screws or other suitable means.

Having thus explained our invention, what we claim is—

1. In a roller-skate, the combination of the following instrumentalities, to wit: a foot-piece, a pair of arms projecting downwardly from said foot-piece, an axle-bolster journaled in said arms, a rubber spring interposed between the bolster and foot-piece, and means for simultaneously compressing said cushion or spring both vertically and laterally to increase its tension, substantially as described.

2. In a roller-skate, the clips K, provided with the screw L, in combination with the projection H, spring J, and bolster F, substantially as set forth.

3. In a roller-skate, the plate C, provided with the arms D E and V-shaped projection H, in combination with a bolster journaled in said arms, a spring interposed between said bolster and projection, and means for producing tension on said spring, substantially as described.

4. In a roller-skate, the plate C, provided with the arms D E and V-shaped projection H, the clips K, provided with the inclined sides *x* and flanges *m*, the cushion J, bolster F, screw L, and pin G, combined and arranged to operate substantially as set forth.

5. In a roller-skate, the bolster-pin G, having the head *d*, provided with the slot *f*, in combination with the V-shaped projection *t*, adapted to pass through said slot as the pin is inserted, and to prevent the pin from escaping after it is inserted, substantially as described.

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Witnesses:
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