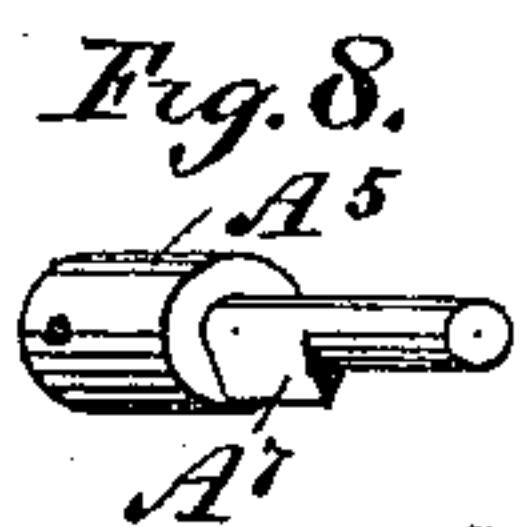
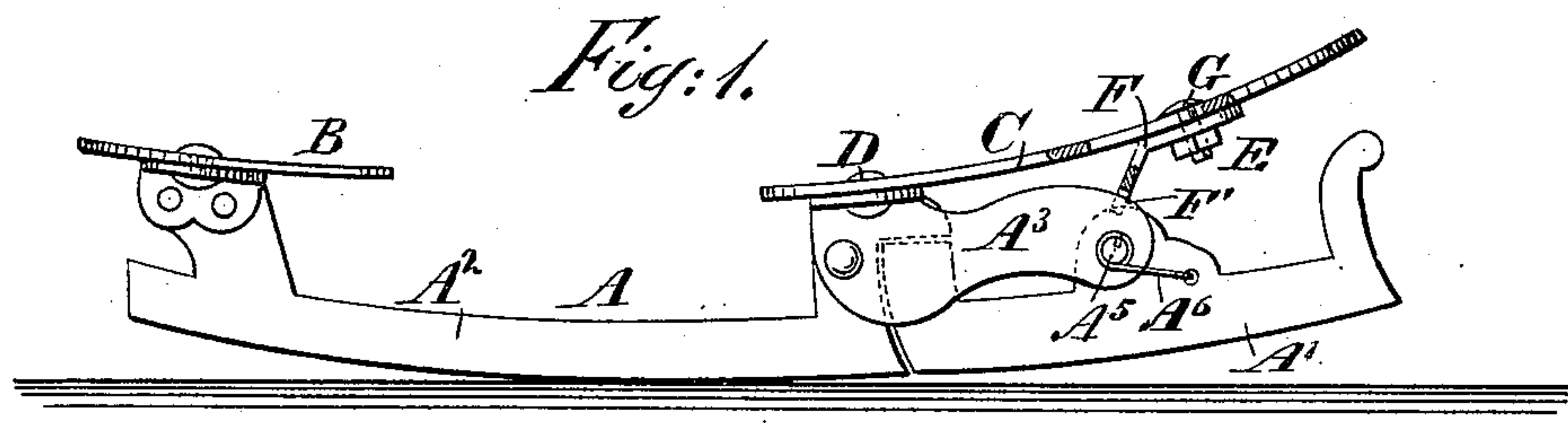


(No Model.)

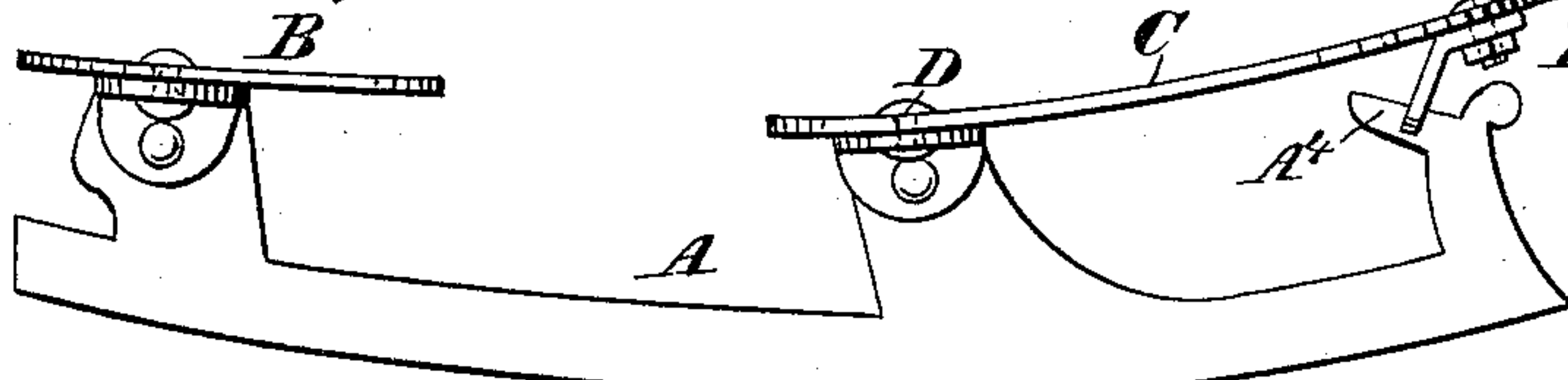
T. H. McQUOWN.  
SKATE.

No. 467,047

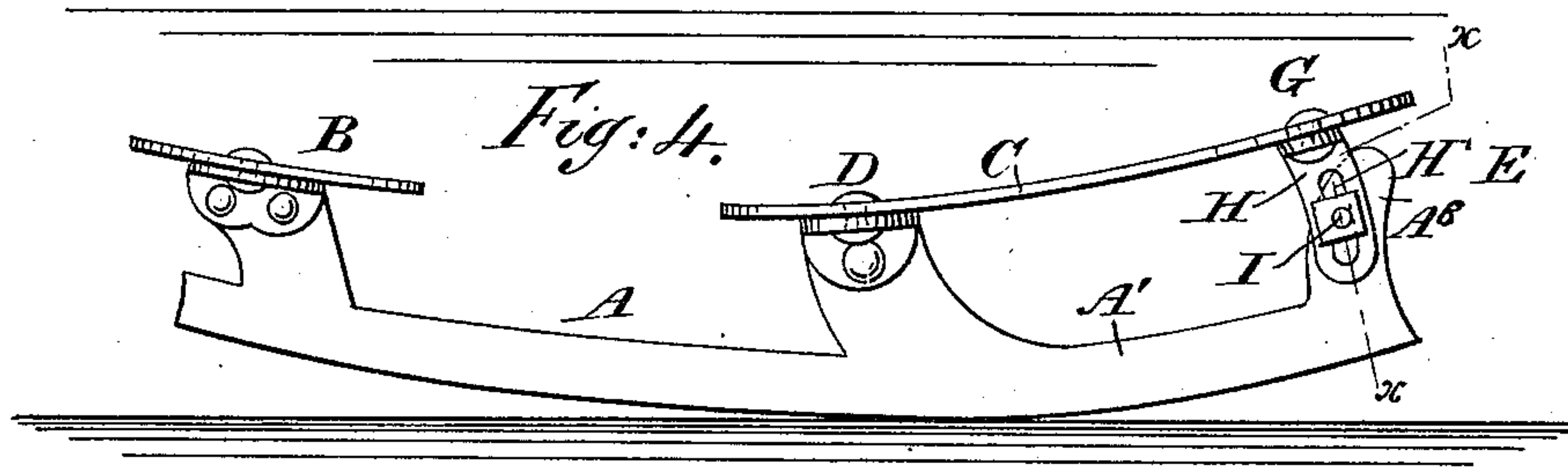
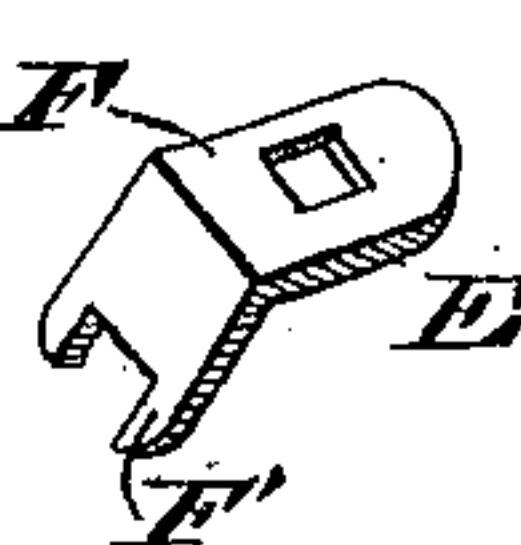
Patented Jan. 12, 1892.



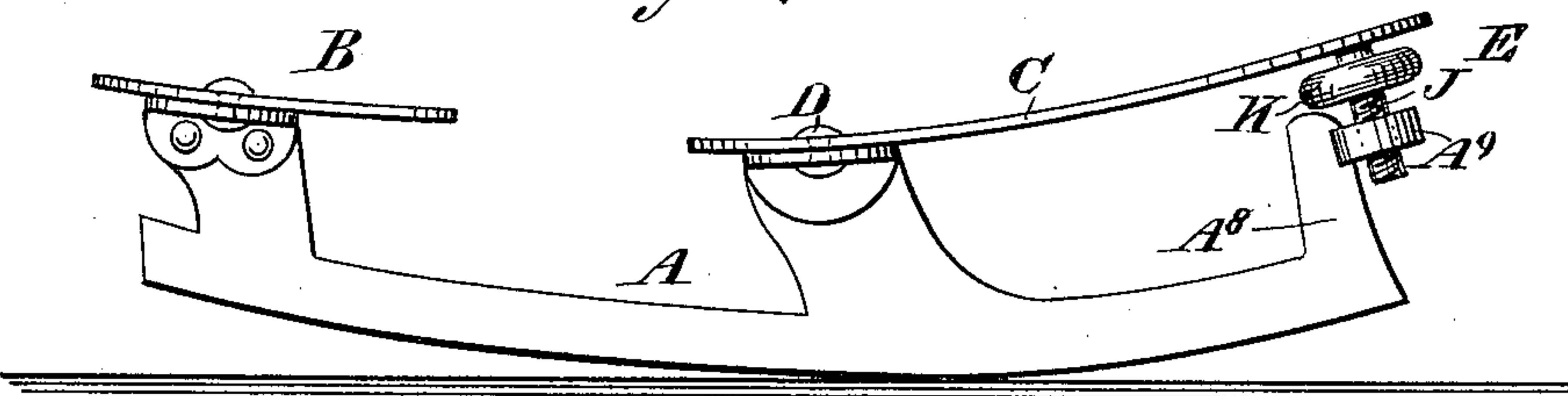
*Fig: 2.*



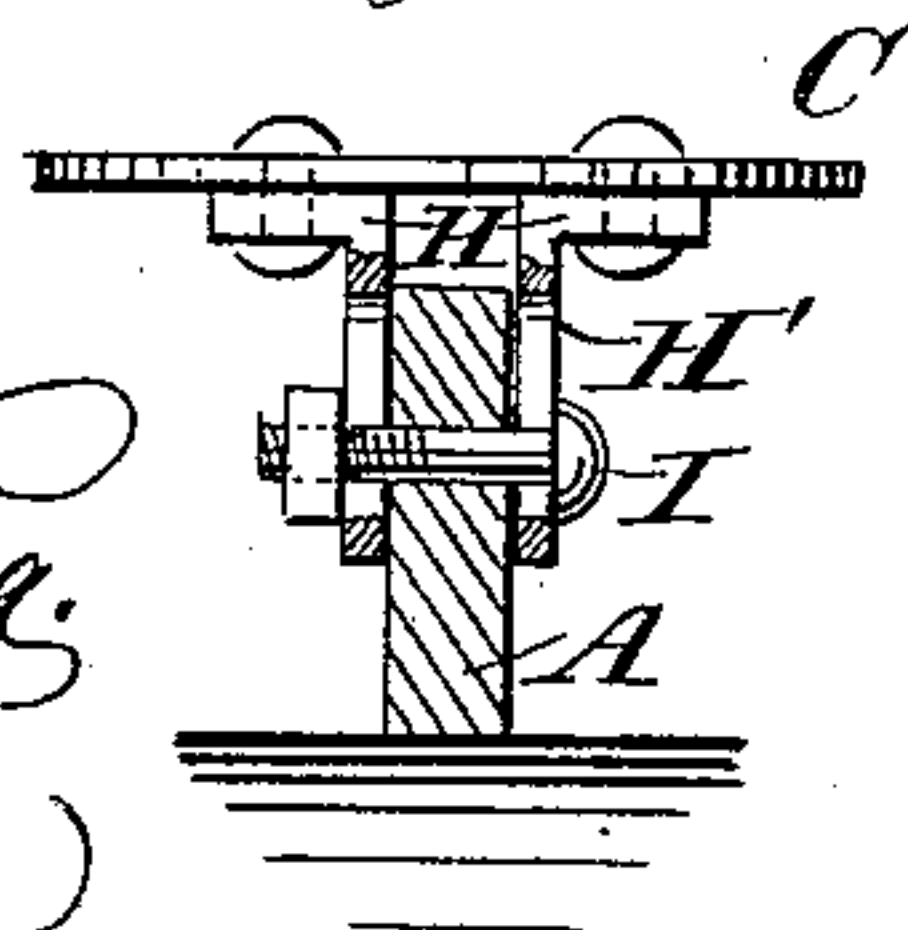
*Fig: 3.*



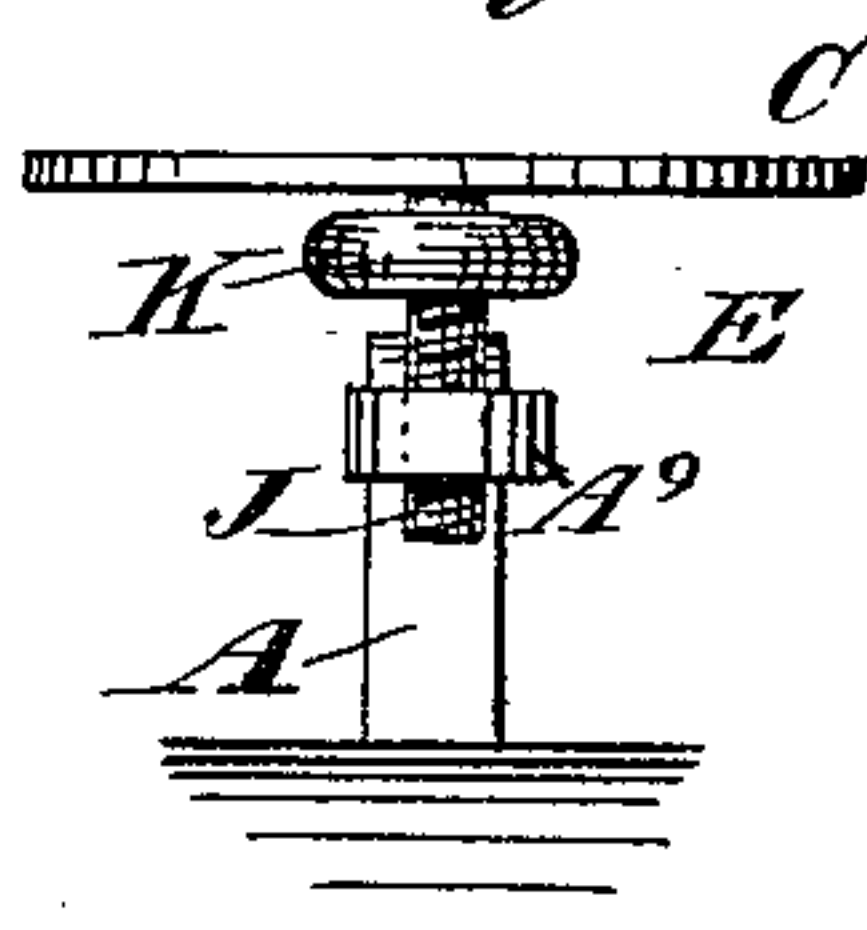
*Fig: 6.*



*Fig: 5.*



*Fig: 7.*



WITNESSES:

*Chas. Nicola.*  
*Edg. Givick*

INVENTOR:

*T. H. McQuown*  
BY *Munn & Co.*  
ATTORNEYS

# UNITED STATES PATENT OFFICE.

THOMAS H. McQUOWN, OF BIGGSVILLE, ILLINOIS.

## SKATE.

SPECIFICATION forming part of Letters Patent No. 467,047, dated January 12, 1892.

Application filed April 18, 1891. Serial No. 389,414. (No model.)

*To all whom it may concern:*

Be it known that I, THOMAS H. McQUOWN, of Biggsville, in the county of Henderson and State of Illinois, have invented a new and Improved Skate, of which the following is a full, clear, and exact description.

The object of the invention is to provide a new and improved skate in which the sole-plate can be adjusted to fit differently-shaped soles in such a manner as to give the toe a firm rest, at the same time preventing pulling on the heel.

The invention consists of a front sole-plate adapted to be raised or lowered at its outer end with relation to the front end of the runner.

The invention also consists of certain parts and details and combinations of the same, as will be described hereinafter, and then pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a side elevation of the improvement as applied on a divided runner. Fig. 2 is a like view of the same as applied on an ordinary continuous runner. Fig. 3 is a perspective view of the adjusting device. Fig. 4 is a side elevation of a modified form of the improvement. Fig. 5 is a transverse section of the same on the line  $xx$  of Fig. 4. Fig. 6 is a side elevation of another modified form of the improvement. Fig. 7 is an end view of the same. Fig. 8 is a perspective view of the pivot-pin for the front runner, and Fig. 9 is a perspective view of the spring for the same.

The skate is provided with a suitable runner A, which may be in sections A' and A<sup>2</sup>, preferably arranged in the manner shown in the United States Letters Patent Nos. 396,413 and 414,915, granted to me under the dates of January 22, 1889, and November 12, 1889, respectively. The runner A may also be continuous, as illustrated in Figs. 2, 4, and 6. The skate is provided with the usual heel-plate B and a front plate C, fastened at D near its rear end to the runner A, near the middle of the latter, as is plainly shown in the drawings. The front end of the front sole-plate C is connected by an adjusting device E with

the front part of the runner A, the said device being of various forms, but serving to adjust the front free end of the sole-plate with relation to the front end of the runner, so as to fit differently-shaped soles.

As shown in Figs. 1, 2, and 3, the adjusting device is formed as an angular plate F, the upper arm of which abuts against the under side of the sole-plate C, and is fastened to the latter by a bolt G, passing through a slot in the sole-plate and engaging the angular plate F. The downwardly-extending arm of the plate F is formed with a fork F', straddling the bracket A<sup>3</sup>, supporting the divided part A' of the runner A, as shown in Fig. 1, or so that the said fork F' engages an inclined projection A<sup>4</sup>, secured on the front end of a continuous runner A, as shown in Fig. 2. By loosening the bolt G and sliding the angular plate F forward or backward the front end of the sole-plate C is moved nearer to or farther from the front end of the runner A, so that the sole-plate C is bent upward or downward to fit the shape of the sole.

The pivot-pin A<sup>5</sup> for the front runner A' is engaged by one end of a coiled spring A<sup>6</sup>, secured with its other end to the front runner A' in front of the said pivot-pin, as shown in Fig. 1. In order to prevent the pivot from turning in its bearing in the bracket A<sup>3</sup>, a V-shaped projection A<sup>7</sup> is formed on the said pivot and is adapted to engage a corresponding notch on one side of the bracket. The coiled spring is very durable and less liable to break when covered by ice or exposed to very cold weather.

As illustrated in Figs. 4 and 5, the adjusting device E consists of two angular arms H, bolted or riveted to the under side of the front end of the sole-plate C, each of the arms being formed with a slot H', through which passes a bolt I, held in the front end A' of the runner A. By loosening the bolt I the front end of the sole-plate C can be raised or lowered to bring the said sole-plate into the desired place, after which the bolt I is screwed up, so as to fasten the arms H to the end A<sup>8</sup> of the runner.

As illustrated in Figs. 6 and 7, the adjusting device consists of a screw-rod J, mounted to turn in the sole-plate C and screwing in a



nut A<sup>9</sup>, arranged on the front end A<sup>8</sup> of the runner A. A wheel K is held on the screw-rod J for conveniently turning the latter, so as to screw it up or down in the nut A to bend  
5 the sole-plate C into the proper shape.

I do not limit myself to the precise construction of the device shown and described, as other forms may be used.

Having thus fully described my invention,  
10 I claim as new, and desire to secure by Letters Patent—

1. A skate provided with a sole-plate having its rear end secured to the runner and its front end adjustably connected to said runner,  
15 substantially as and for the purpose set forth.

2. In a skate, the combination, with a runner and a sole-plate having its rear end secured to the runner, of an adjusting device arranged between the front end of the sole-plate  
20 and the runner, whereby provision is made for adjusting the sole-plate to fit differently-shaped shoe-soles, as specified.

3. In a skate, the combination, with a runner and a heel-plate, of a separate flexible sole-plate having its rear end fixedly secured to  
25 the runner and means arranged between the front end of the sole-plate and the runner for flexing the said plate to cause it to fit differ-

ently-shaped shoe-soles, substantially as herein shown and described.

4. In a skate, the combination, with a runner and a sole-plate having its rear end secured to the runner, of a forked plate adjustably secured to the sole-plate and having its  
35 forked end engaging the runner, substantially as herein shown and described.

5. In a skate, the combination, with a bracket and a pivot-pin fixed therein, of a front runner hung on the said pivot-pin and a coiled spring connected with the runner and  
40 the said pivot, substantially as shown and described.

6. In a skate, the combination, with a runner and a sole-plate secured at its rear end on the said runner, of an adjusting device comprising an angular plate formed at one end  
45 with a fork engaging the front end of the runner and a bolt for fastening the said angular plate on the said sole-plate, the said bolt passing through a longitudinal slot in the sole-  
50 plate, substantially as shown and described.

THOMAS H. McQUOWN.

Witnesses:

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J. Y. WHITEMORE.