

No. 700,377.

Patented May 20, 1902.

J. SAKRZEWSKI.
COMBINED ROAD AND ICE SKATE.

(Application filed Dec. 3, 1900.)

(No Model.)

Fig. 1.

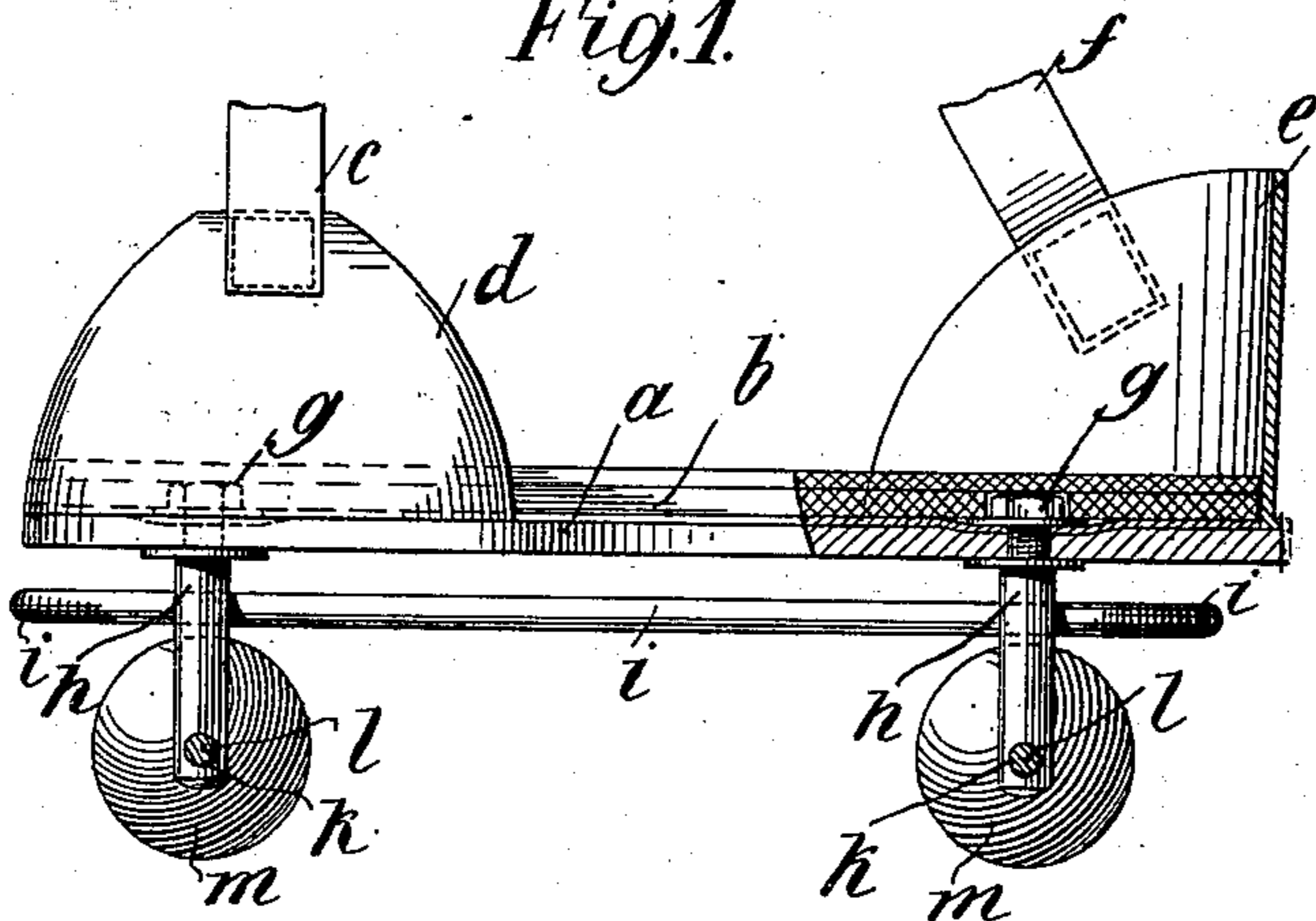


Fig. 2.

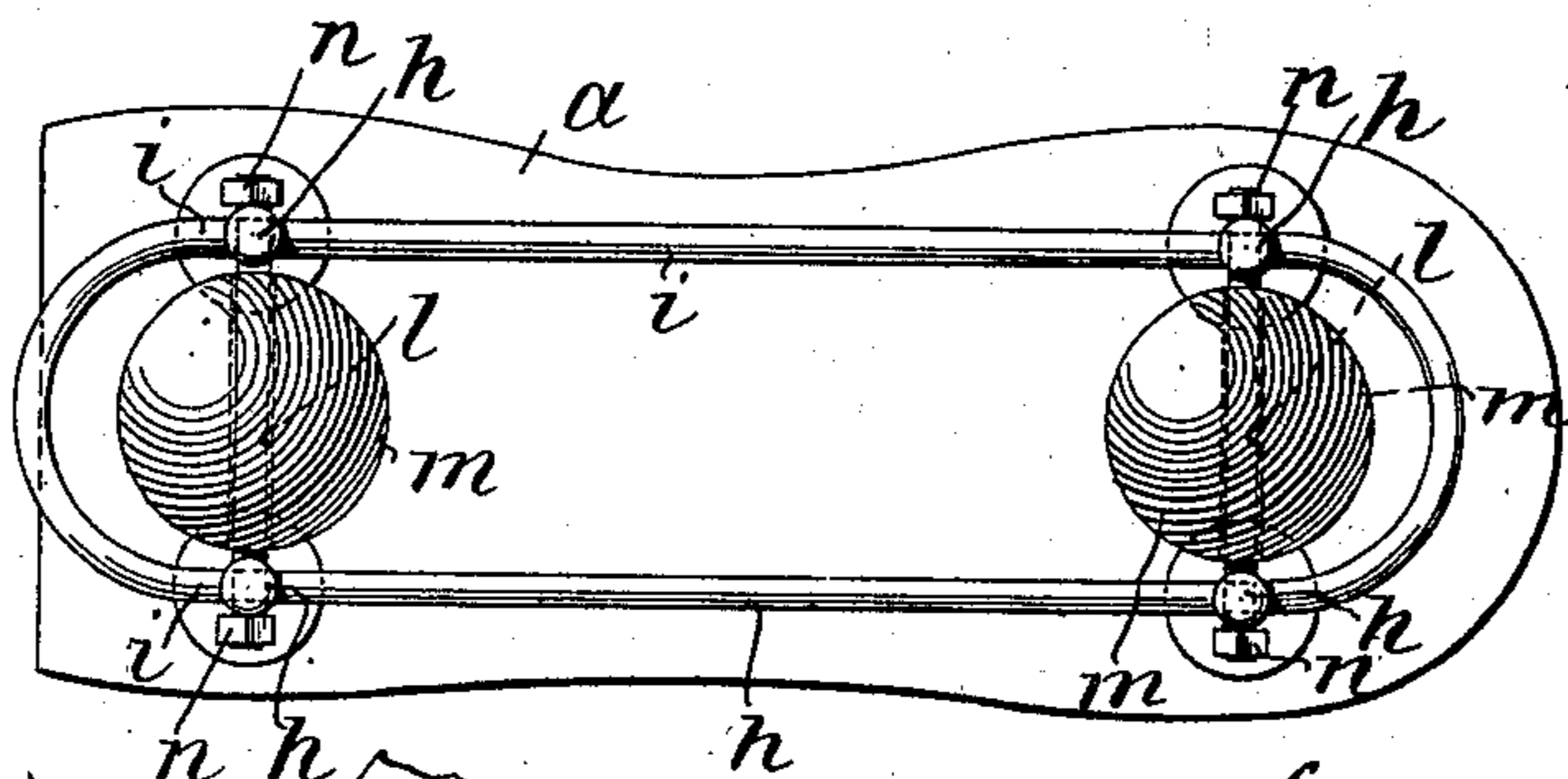


Fig. 3.

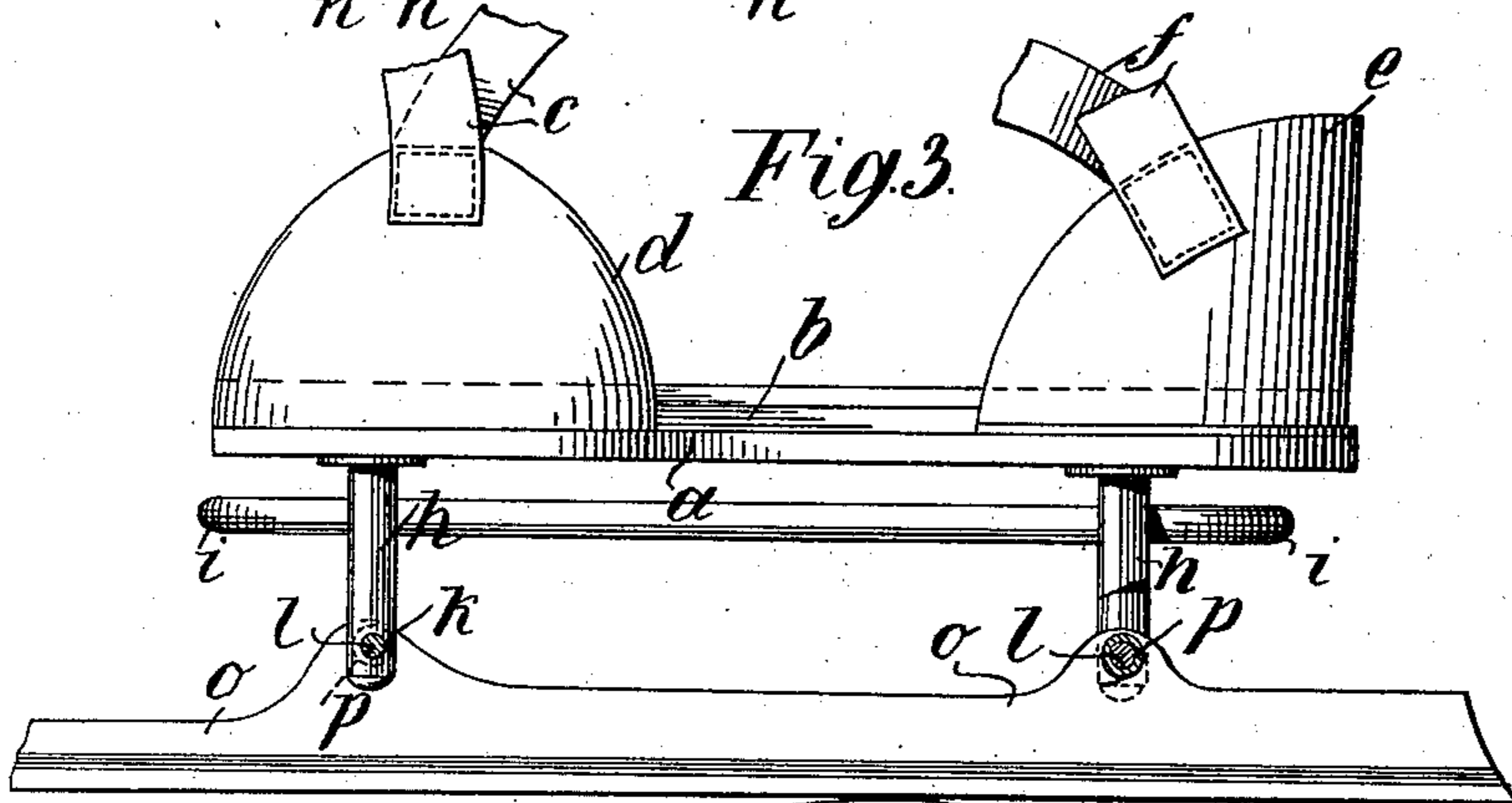
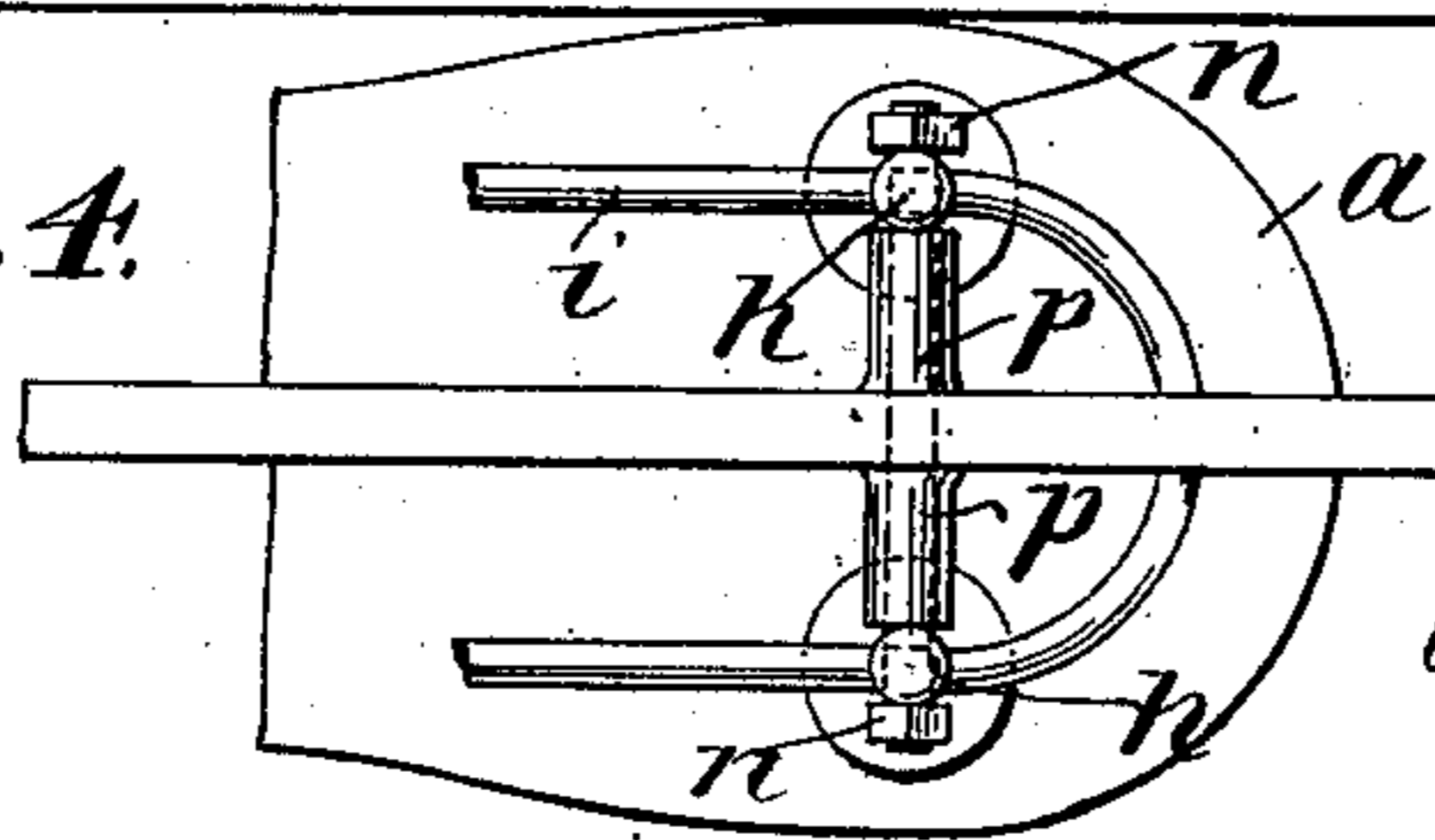


Fig. 4.



Witnesses:

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UNITED STATES PATENT OFFICE.

JULIUS SAKRZEWSKI, OF HANOVER, GERMANY.

COMBINED ROAD AND ICE SKATE.

SPECIFICATION forming part of Letters Patent No. 700,377, dated May 20, 1902.

Application filed December 3, 1900. Serial No. 38,588. (No model.)

To all whom it may concern:

Be it known that I, JULIUS SAKRZEWSKI, gentleman, a subject of the German Emperor, residing at Hanover, in the Empire of Germany, have invented new and useful Improvements in a Combined Road and Ice Skate, of which the following is a specification.

The present invention relates to an improved combined road and ice skate.

When employed as a road-skate, my invention aims at reducing friction to a minimum by the use of balls or spheres.

My invention also aims at permitting the road-skate to be transformed into an ice-skate, and vice versa, in a simple, speedy, and convenient manner.

Other objects of the invention are to simplify and cheapen the construction and to render more efficient, serviceable, and durable in operation devices of the kind referred to.

With these ends in view the invention consists in the novel combination, arrangement, and adaption of parts, all as more fully hereinafter explained, shown in the accompanying drawings, and then specifically set out in the appended claims.

Referring to the drawings, Figure 1 shows a side elevation, partly in section, of my improved skate rendered fit for use on the road. Fig. 2 represents an inverted plan view of the road-skate according to Fig. 1. Fig. 3 is a side elevation of my improved skate rendered fit for use on ice. Fig. 4 shows an inverted plan view of the rear portion of Fig. 3.

My improved skate comprises, essentially, the ordinary base *a*, made or constructed of any desired suitable material and fitted with a layer of felt *b*, side flaps *d*, to be connected together over the foot by means of the buckle-strap *c*, and the heel-cap *e*, with buckle-strap *f*, serving for securing the skate over the instep in the customary manner. In suitably-situated holes at the front and rear part of the base *a* four vertical bars *h* are secured by means of screw-nuts *g*, which rest in recesses in the felt layer *b*, as illustrated in Fig. 1. A metal hoop *i* interconnects these four vertical bars *h*, which latter are provided with bores near the base *a*, through which said metal hoop *i* passes. The hoop *i* may be closed when same is situated in the

bores in the bars *h* in any suitable manner. The purpose of the hoop *i* is to stay said bars *h* in their relative position. Transverse bores *k* at the free ends of the bars *h* serve for the reception of the axles *l l* of the roller-balls *m m*. Both extremities of said axles *l* are screw-threaded in order to receive screw-nuts outside the bars *h* for the purpose of preventing rotation of said axles when the skate is in use. The balls *m m* are loosely mounted on the axles *l l* and suitably of a diameter which approaches the distance between two opposite bars *h*.

The skating-blade *o*, for use on ice, is provided with tubular projections *p p* at either side and at places coinciding with the position of the bars *h*. The tubular extensions *p* on one side of the blade *o* coincide with the corresponding tubular extensions on the other side. By means of these tubular extensions the center position of the skating-blade *o* along the base *a* is attained, while at the same time the blade *o* is rendered rigid between the bars *h*. This is attained by passing the axles *l* through the transverse bores in the bars *h* and through the tubular extensions of the blade *o* and by thereupon screwing the screw-nuts *n* tight at either extremity of said axles *l*, so that they press against the bars *h*.

The component parts of my improved skate being assembled either for use of the skate on the road or on ice, as may be required, in the manner above described, the skate is attached to the foot in the customary manner by means of the buckle-strap *c* and *f* in connection with the side flaps *d* and the heel-cap *e*, respectively.

The advantage of the employment of roller-balls in connection with my improved skate when same is required for use on the road lies in the fact that such balls touch the road-surface only in one point, and consequently friction is reduced to a minimum. The action of such a road-skate is extremely easy, and the skate is rendered absolutely reliable by means of the vertical bars *h* and the hoop *i*, which interconnects and stays same.

In order to transform the road-skate into an ice-skate, it is only necessary to loosen the axles *l*, whereupon the balls *m* can be removed and substituted by the rail *o* in the manner hereinbefore described.

What I claim as new, and desire to secure by Letters Patent, is—

1. In an improved combined road and ice skate in combination with the base and customary means for attachment of the skate to the foot; two pairs of vertical bars attached to the base; a metal hoop interconnecting and staying the aforesaid bars in their relative position; a pair of detachable axles supported in transverse bores in the vertical bars, means for securing said axles against rotation in their bearings and a pair of balls adapted to be received between the vertical bars and rotatable on the aforesaid axles, substantially as described and shown.

2. In an improved combined road and ice skate in combination with the base and customary means for attachment of the skate to the foot; two pairs of vertical bars attached to the base; a metal hoop interconnecting and staying the aforesaid bars in their relative position; a pair of detachable axles supported in transverse bores in the vertical bars, means for securing said axles against rotation in their bearings and a skating-blade adapted

to be received centrally between the vertical bars and to be secured in position by means of the aforesaid axles, substantially as described and shown.

3. In an improved combined road and ice skate in combination with the base and customary means for attachment of the skate to the foot; two pairs of vertical bars attached to the base; a metal hoop interconnecting and staying the aforesaid bars in their relative position; a pair of detachable axles supported in transverse bores in the vertical bars; means for securing said axles against rotation in their bearings and a pair of balls and a skating-blade adapted to be interchanged, and to be received and supported between the vertical bars by means of the aforesaid axles, substantially as described and shown.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

JULIUS SAKRZEWSKI.

Witnesses:

LEONORE KASCH,
E. GEVEN.