

M. AUBERTEL.
DETACHABLE WAGON SKATE.
APPLICATION FILED JAN. 13, 1910.

958,461.

Patented May 17, 1910.

Fig. 1,

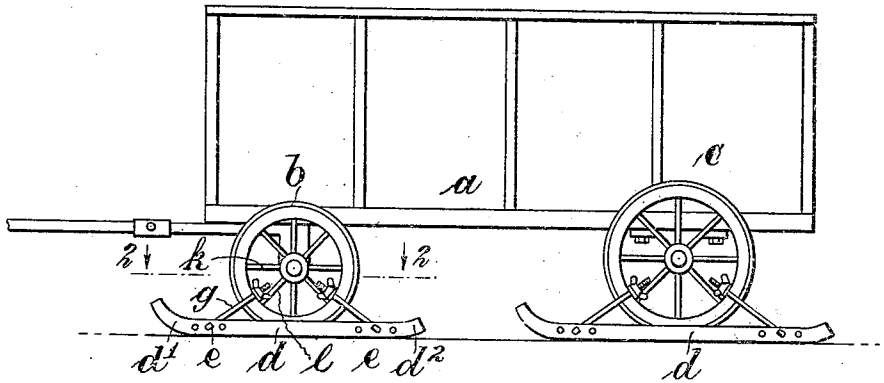


Fig. 2,

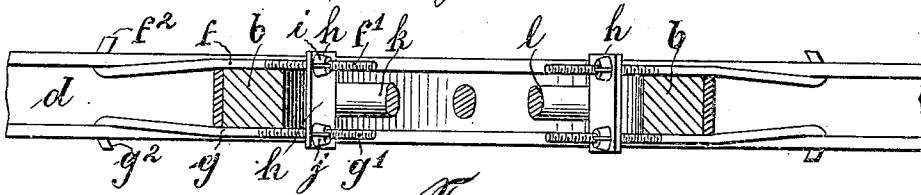


Fig. 3,

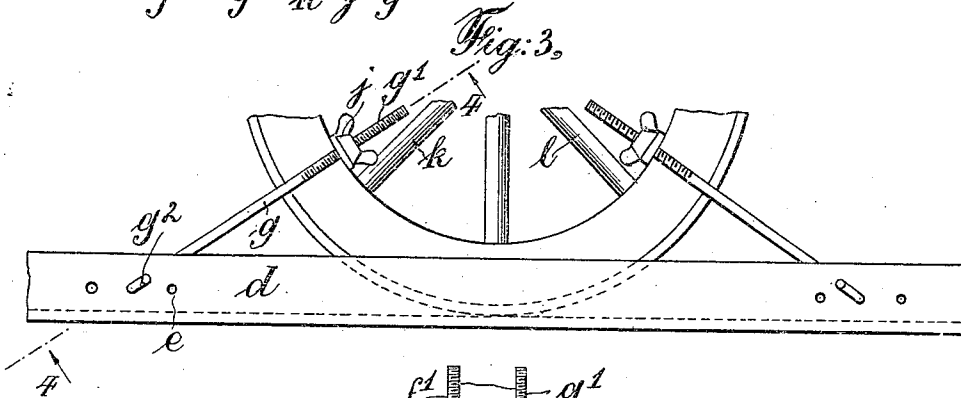
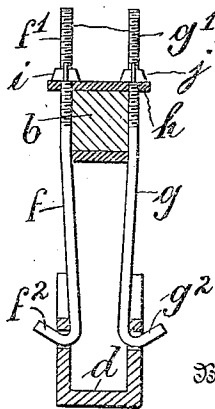


Fig. 4,



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UNITED STATES PATENT OFFICE.

MAX AUBERTEL, OF CORNWALL ON THE HUDSON, NEW YORK.

DETACHABLE WAGON-SKATE.

958,461.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, MAX AUBERTEL, a citizen of the United States, and a resident of Cornwall on the Hudson, county of Orange, State of New York, have invented certain new and useful Improvements in Detachable Wagon-Skates, of which the following is a specification.

This invention has reference to improvements in detachable wagon skates and pertains particularly to a novel kind of skates of channel iron form which are adapted to be quickly applied to and detached from the wheels of any vehicle. These wagon skates are very useful for instance when the vehicle passes first over city streets from which the snow has been removed and then reaches roads or ground covered with snow or ice.

The present invention has for its special object to produce wagon skates by means of which quick turns and sharp curves may be made. To attain this desirable result each wheel of a vehicle is provided with one independent skate. By simplicity in construction the cost of production has been so reduced that the novel device forms a general commodity. Adjustable means are provided in connection with the skates which render it possible to apply the skates to all kinds and sizes of wheels and it has been sought to produce a neat but durable article, all as will be fully described hereinafter with reference to the accompanying drawings in which:

Figure 1 represents in side elevation a vehicle with wagon skates attached thereto embodying in desirable form the present improvements. Fig. 2 is a horizontal section on an enlarged scale on line 2—2 of Fig. 1. Fig. 3 illustrates in elevation on an enlarged scale the lower portion of a wheel secured to the middle portion of a skate, and Fig. 4 is a section on line 4—4 of Fig. 3.

Similar characters of reference denote like parts in all the figures.

The novel wagon skates, being in form of channel irons are relatively light and as one independent skate is provided for each wheel the skates are not very long and therefore will be carried conveniently in the vehicle when not in use without occupying much space.

On the drawing *a* represents the vehicle, *b* is a front wheel of same and *c* a rear

wheel. The skates *d* are all of the same construction except to note that the skate of the rear wheel is somewhat longer because rear wheels are usually larger than the front wheels. Each skate consists of a channel iron whose front portion *d*¹ is bent upwardly and curved while the rear portion is but slightly bent in an upward direction as shown at *d*². In the vertical portions of the skate there are openings *e*. These are located in the front and rear portions of the skate and coincide with each other. When the skates are in use the wheels of the vehicle stand each in the center of a skate as shown in Fig. 1. The sides of the channel iron prevent the wheel from moving side-wise.

In order to hold the wheels in a stationary position during the use of the skates securing devices are provided two for each skate. These devices are of simple construction but retain the wheels very effectively and may be secured and released quickly and conveniently. Each securing device consists of two metal rods *f*, *g* having threaded end portions *f*¹, *g*¹ while the other end is bent forming acute, angular hooks *f*², *g*². In order to render the application of the hooks conveniently possible the unthreaded portions of the rods are bent somewhat inwardly. The small iron plate *h* having two openings is slipped onto the threaded portions of the rods forming thus a connecting member and securing screws *i*, *j* are provided one on each threaded portion above the connecting plate *h*. The securing devices are applied in a very simple manner. First the screws *i*, *j* are turned upward leaving the lower portion of the rods longer than required, the device is applied to the wheels between two spokes *k*, *l* and the hooks inserted one each in an opening *e* of the side flanges of the skate. The securing screws are screwed home until the device is tight. Two devices of the kind described are applied to each wheel one in the lower front portion and one in the lower rear portion as shown on the drawing. Thus the securing devices rest on the inner and the side surfaces of the wheel. When it is desired to remove the skates the securing screws are loosened and the hooks taken out of the openings *e* in the skate when it may easily be removed. I prefer to use thumb screws or winged screws which do not require any tool to be

tightened and may easily be operated by hand whereby the application and removal of the securing devices is greatly facilitated.

I claim as my invention:

5 1. Detachable wagon skates for vehicle wheels comprising each a skate proper of channel iron form having a curved front portion bent upwardly and openings in its side flanges in the front and rear portions
10 of the skate, and two securing devices consisting each of two metal rods forming acute angular hooks at one end and threaded at the other, a rod connecting metal plate, and a tightening screw on each threaded rod portion.
15 tion.

2. In a detachable wagon skate of the type described a securing device consisting of two metal rods with threaded end portions, a rod connecting metal plate with two
20 openings adapted to be slipped on the threaded portions of the rods, a tightening screw on each threaded portion, and two outwardly bent acute angular hooks formed one

on the second end of each rod, said hook containing rod portion being slightly bent inwardly for the purpose specified. 25

3. In a vehicle in combination, a vehicle wheel and a detachable wagon skate consisting of a skate proper of channel iron form with curved front portion bent upwardly, a rear portion slightly bent in an upward direction and having openings in the side flanges of the rear and front portion of the skate, and a securing device made of two metal rods with threaded end portions, a rod
35 connecting plate, a tightening screw on the threaded portion of each rod, and an acute angular hook formed outwardly at the other end of each rod.

Signed at New York, N. Y., this 12th day 40 of January 1910.

MAX AUBERTEL.

Witnesses:

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