

T. E. PRICE.  
Sleigh-Runner.

No. 219,174.

Patented Sept. 2, 1879.

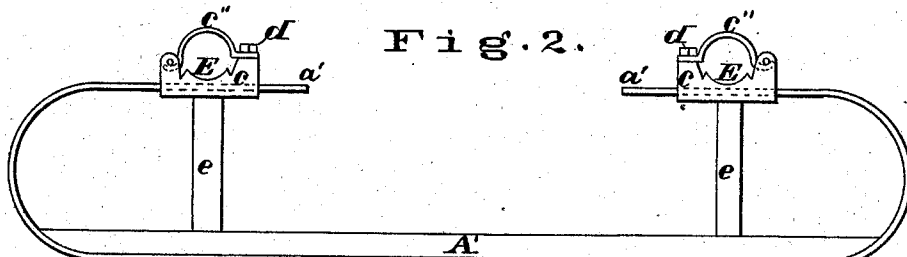
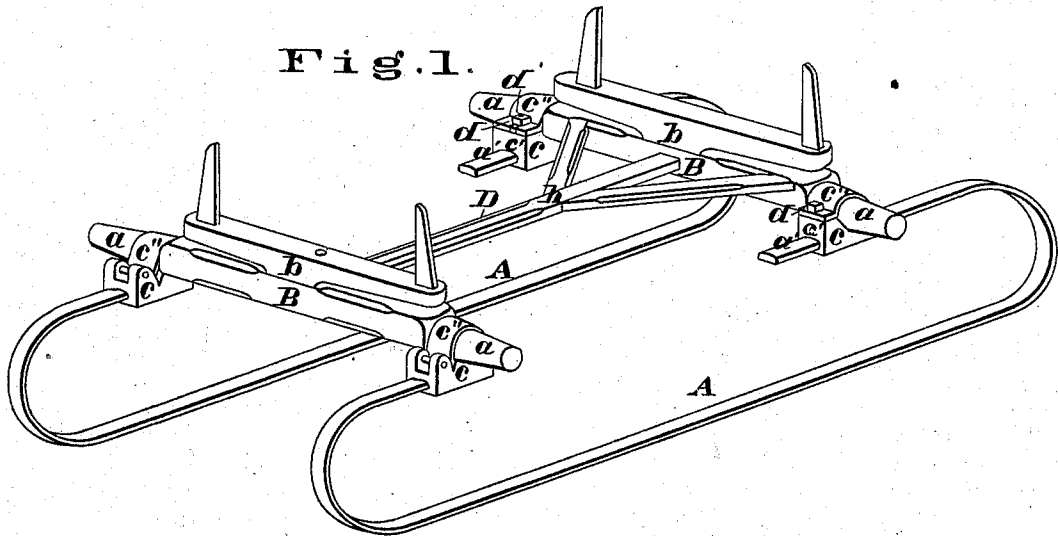


Fig. 4.

Fig. 3.

Fig. 5.

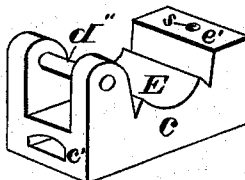
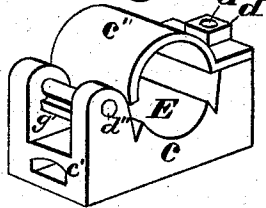
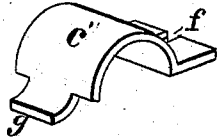
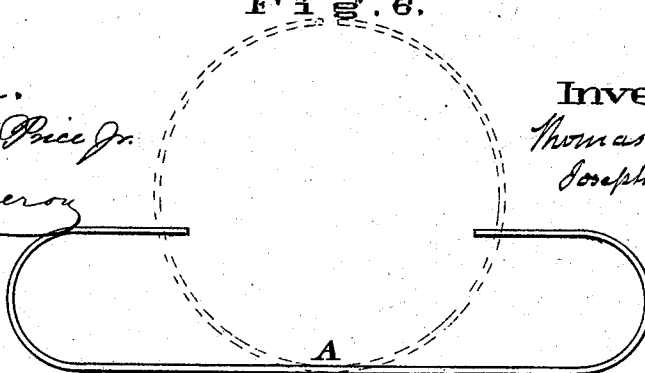


Fig. 6.

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# UNITED STATES PATENT OFFICE.

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## IMPROVEMENT IN SLEIGH-RUNNERS.

Specification forming part of Letters Patent No. 219,174, dated September 2, 1879; application filed March 26, 1879.

To all whom it may concern:

Be it known that I, THOMAS E. PRICE, of the city of St. Louis and State of Missouri, have invented certain new and useful Improvements in Sleigh-Runners and Chairs therefor; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to the running-gear of vehicles; and consists in an adjustable chair and coupling, by which sleigh-runners may be readily attached to and detached from the running-gear of a wagon or carriage, the wheels being removed when it is desired to use the vehicle as a sleigh. The said adjustable chair is formed with a seat for the axle of the vehicle, and is provided with a clamp to secure the axle in its seat, a socket, through which the end of the runner is passed, and a screw-bolt, which is used in clamping the parts and fastening the chair to the runner, as herein shown and described.

In the accompanying drawings, forming a part of the specification herein, Figure 1 represents, in perspective, the running-gear of a wagon without the wheels, and having sleigh-runners with my improvements applied thereto. Fig. 2 is a side view of one of the runners with the chairs in position thereon; the runner being provided with re-enforcing pieces. Fig. 3 is a detached view, in perspective, of the chair. Fig. 4 is a detached view of the cap or clamping piece. Fig. 5 represents the chair with the cap-piece removed. Fig. 6 illustrates, in side view, the formation of the runner.

Referring to the drawings, A designates the runners, each of which is formed of a strip which has its ends bent over toward each other, as shown, so as to form two elastic horizontal resting-bars, having the free ends *a'*.

The chair (indicated by *c*) is formed with a seat, *E*, to receive the axle *a*, and a socket or longitudinal passage, *c'*, through which the free end *a'* is passed when the chair is placed on the runners.

The chair *c* is secured to the runner at the desired point by means of a screw-bolt, *d'*, which passes down through a threaded hole, *s*, in the chair to the runner in the socket *c'*.

A hinged cap, *c''*, the curled tongue *g*, and pin *d''*, forming the hinge, as shown, is used to clamp the chair to the axle *a*, one end of the cap having a slot, *f*, to admit the upper end of the screw-bolt *d'*, so that the cap, when brought down on the axle *a* and cap-seat *e'*, is firmly secured by means of the screw-bolt *d'* and nut *d*. Thus the bolt *d'* serves as a set-screw in fastening the chair to the runner, and in clamping the axle within the chair.

B, D, and *b* in Fig. 1 indicate various parts of the running-gear of the vehicle.

The chair, when made of cast-iron rendered malleable, is both strong and light, and is readily attached and detached.

When placed on the runner, the latter passing through the socket *c'* at the proper point of adjustment, the screw-bolt *d'* is screwed down to the runner, the axle *a* is placed in the seat *E*, and the cap *c''* is then brought down on the axle and the seat *e'*, and secured in place by the nut *d* on the upper end of the screw-bolt *d'*.

In case the axle is of insufficient size to be firmly clamped by the chair and cap, a suitable packing may be used.

In the manufacture of these chairs I make them with sockets of various forms and sizes, to admit various kinds of strips for runners.

As a matter of economy, the worn tires of wagon-wheels may be readily converted into runners, the tire being cut through at one point, and then bent into the desired shape, as shown in Fig. 6. For runners thus formed chairs are provided with sockets conforming to the sectional form of the tire.

When the sleigh-runners are intended to support heavy loads, they may be strengthened by re-enforcing pieces *A'* and *e*, as shown in Fig. 2.

Having described my invention, I claim—

1. The chair having the axle-seat *E* and socket *c'*, and provided with the cap *c''*, the screw-bolt, and nut, for the purposes set forth.

2. In combination with the adjustable chair, the runner *A*, constructed as shown, for the purpose specified.

In testimony that I claim the foregoing as my own invention I affix my signature in presence of two witnesses.

THOMAS E. PRICE.

Witnesses:

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