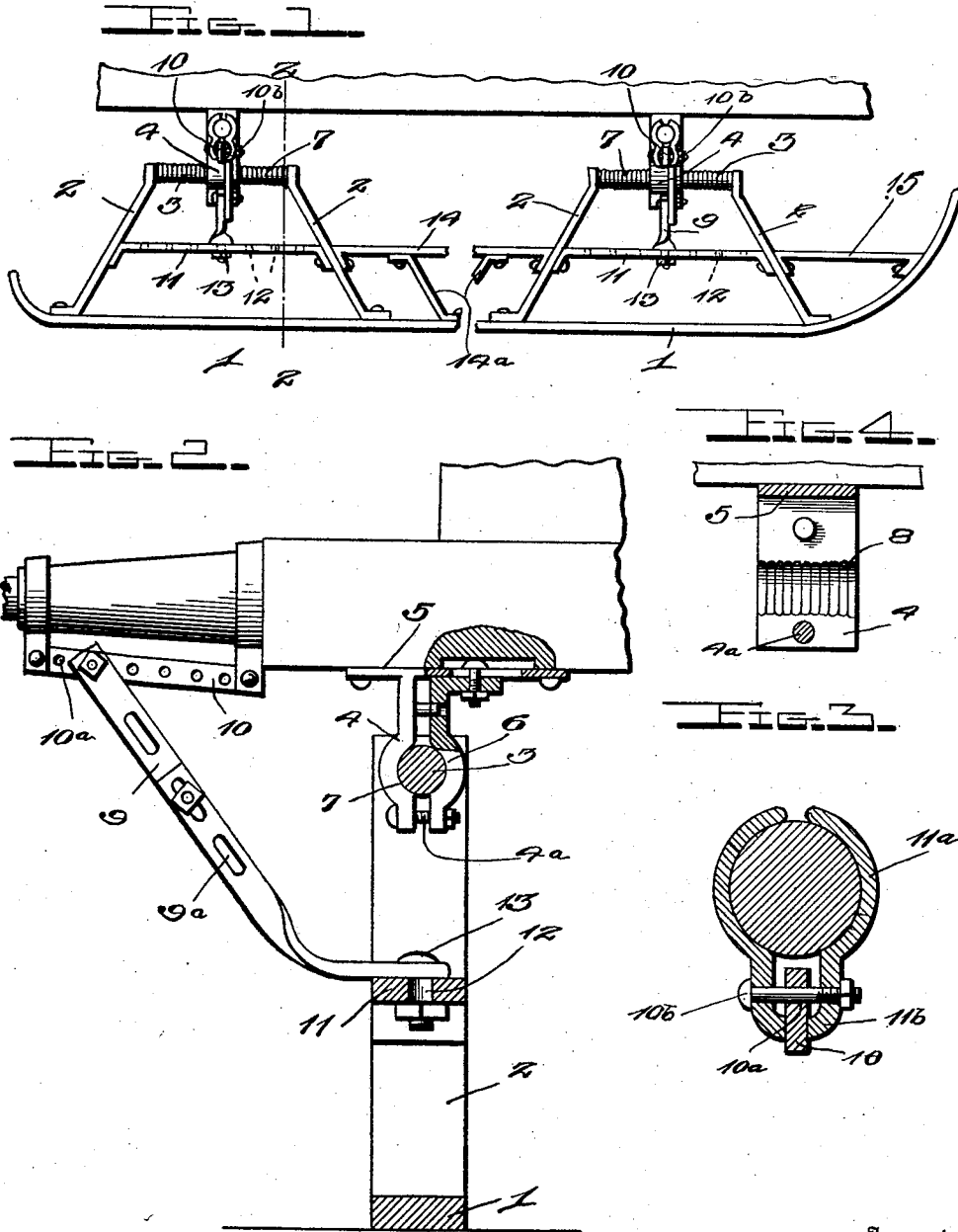


J. A. MARKEN.
SLEIGH RUNNER.
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1,033,183.

Patented July 23, 1912.



Inventor

J. A. Marken,

Witnesses

Chas. L. Grestauer
G. B. Norton.

By *Watson & Coleman*
Attorney

UNITED STATES PATENT OFFICE.

JOSEPH A. MARKEN, OF HUDSON, SOUTH DAKOTA.

SLEIGH-RUNNER.

1,033,183.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, JOSEPH A. MARKEN, a citizen of the United States, residing at Hudson, in the county of Lincoln and State of South Dakota, have invented certain new and useful Improvements in Sleigh-Runners, of which the following is a specification, reference being had to the accompanying drawings.

10 This invention comprehends certain new and useful improvements in carriages and wagons and relates particularly to an improved construction of sleigh runner, whereby a buggy or similar vehicle may be easily
15 converted into a sleigh, when required.

The invention has for its primary object a simple, durable and efficient construction of device of this character, the parts of which may be cheaply manufactured and
20 readily assembled and which is not likely to get out of order, and the invention also aims to generally improve this class of devices and render them more useful and commercially desirable.

25 With these and other objects in view, as will be more fully brought out as the description proceeds, the invention consists in certain constructions, arrangements and combinations of parts as will be hereinafter
30 fully described and claimed.

For a full understanding of the invention, reference is to be had to the following description and accompanying drawing in which,

35 Figure 1 is a side elevation of a sled runner constructed in accordance with my present invention. Fig. 2 is an enlarged transverse sectional view on the line 2—2, of Fig. 1. Fig. 3 is a detail sectional view through
40 the spindle of the axle and one of the clamps or clips hereinafter specifically described, and, Fig. 4 is a fragmentary detail view of another clip.

Corresponding and like parts are referred
45 to in the following description and designated in the accompanying drawing by like reference characters.

As my improved runners are alike in construction, a description of one will suffice for
50 both.

Referring to the drawing, the numeral 1 designates the runner proper, and 2 designates the front and rear knees of the runner, each of said knees embodying, in the
55 present instance, upwardly converging supporting bars 2 and a connecting longitudi-

nally extending top bar 3. Clips 4 are designed for adjustable engagement with the cross bars 3 of the knees, each of said clips being constructed in two mating sections, one of which is preferably rigidly connected
60 to a clip bar 5 designed to be secured to one of the axles of the vehicle. The other section of the clip, designated 6, preferably has a slot and bolt connection with the bar 5, as
65 best illustrated in Fig. 2, whereby one part of the clip may be separated from the other and securely fitted around its corresponding top bar 3. Preferably, each top bar 3 is round in cross section and is formed with a
70 series of longitudinally arranged and transversely extending corrugations 7, the inner or opposing faces of the clip sections 4 and 6 being correspondingly ribbed or corrugated, as indicated at 8, whereby when the
75 clips are clamped in properly adjusted positions on the top bars 3 of the knees, all longitudinal displacement will be prevented, while at the same time, the construction will
80 permit the clips to turn transversely on the top bars 3, as required. The sections of the clips are secured together in clamped relation around the bars 3 by tie bolts 4^a or similar fastening devices.

In connection with each knee, I use a
85 transversely extending and obliquely disposed brace 9 which is provided at one end with a clip bar 10 formed with any desired number of apertures 10^a, through which a
90 bolt may be passed so as to adjustably connect together the clip bar and brace. The inner end of each laterally extending brace 9 is designed for engagement with a longitudinally extending brace bar 11, which is
95 secured at its front and rear ends to the standards of the knee, each bar 11 being formed with a plurality of apertures 12 extending therethrough to receive bolts 13, whereby the inner ends of the brace bars 9
100 may be adjustably connected to the bars 11, according to the distance between the front and rear axles of the vehicle.

The apertures 10^a of the brace bars 10 are also designed to receive bolts 10^b, which extend through clips 11^a designed to be
105 clamped around the spindle of the axle, the clips 11^a being preferably arranged in pairs on opposite sides of the point of connection between the brace 9 and the clip bar 10. Preferably, the inner sides of the clip
110 members where they engage the brace 9 on opposite faces thereof, are hollowed out or

recessed, as indicated at 11^b, whereby they may the more securely clamp around the spindle of the axle when the bolts 10^b are tightened up. The apertures 10^a manifestly provide for different adjustable connections between the bars 10 and braces 9 so as to compensate for axles of different lengths. Preferably, each bar 9 is constructed in two sections, each of which is formed with a number of longitudinally elongated slots 9^a, through which bolts are adapted to extend, whereby to lengthen or shorten the bars, to secure the required adjustment.

If desired, the front and rear ends of each runner may be connected together by a horizontally extending brace 14 which may be connected at its ends to the knees 2 and which may be also connected intermediate of its ends to the runner 1 by means of braces 14^a. 15 designates a corresponding brace which extends from the front knee 2 to the upwardly turned end of the runner, as clearly illustrated in the drawing.

From the foregoing description in connection with the accompanying drawing, the operation of my sled runner will be apparent. When the runners are fitted to the front and rear axles of a buggy or other vehicles, it will be noted that a very rigid structure is secured, while at the same time, the runners may be easily detached when it is desired to again convert the vehicle from a sleigh to a buggy or the like.

While the accompanying drawing dis-

closes what I believe to be the preferred embodiment of my invention, it is to be understood that the invention is not limited thereto, and that various changes may be made in the construction, arrangement and proportions of the parts without departing from the scope of the invention, as defined in the appended claim.

What I claim is:—

A sleigh runner of the character described, including a runner proper, front and rear knees connected to said runner and embodying longitudinally extending top bars formed with transversely extending corrugations, clips adapted to embrace said top bars and formed in two adjustable sections which are provided in their opposing faces with corrugations adapted to interlock with the corrugations of the top of the knees, clip bars connected to said clips and designed for attachment to vehicle axles, a longitudinally extending brace bar connected at its ends to each knee intermediate of the top and bottom thereof, said braces being formed with a plurality of apertures, and laterally extending brace bars provided at their outer ends with clips designed for attachment to the axles.

In testimony whereof I hereunto affix my signature in the presence of two witnesses.

JOSEPH A. MARKEN.

Witnesses:

G. J. MOEN,

OLIVER GOEGEWAN.