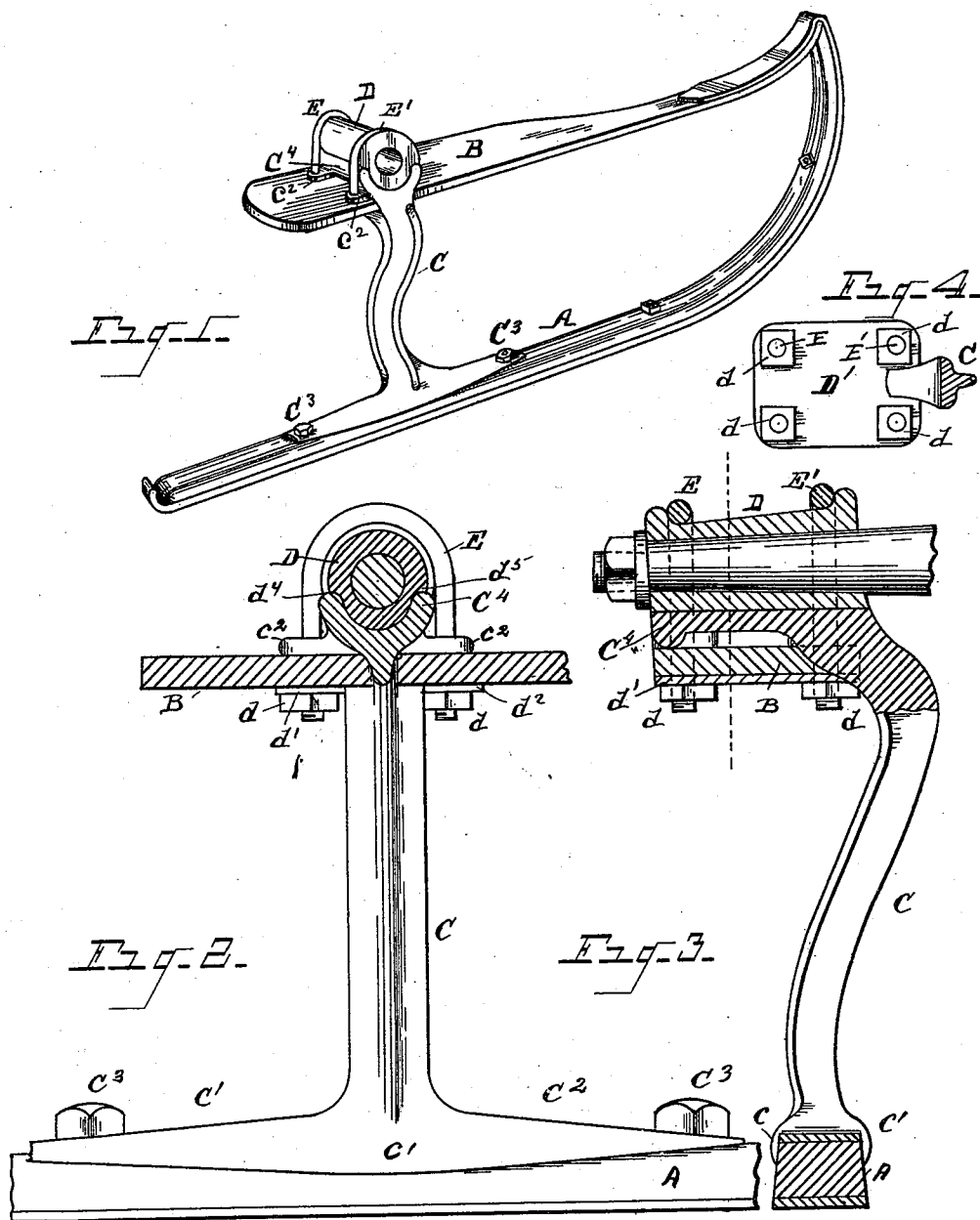


(No Model.)

S. E. OVIATT.
SLEIGH.

No. 519,004.

Patented May 1, 1894.



WITNESSES.

Otto B. Baenziger.
E. K. Roemer.

INVENTOR _____

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UNITED STATES PATENT OFFICE.

SOLOMON E. OVIATT, OF LANSING, MICHIGAN, ASSIGNOR TO THE OVIATT WAGON COMPANY, OF SAME PLACE.

SLEIGH.

SPECIFICATION forming part of Letters Patent No. 519,004, dated May 1, 1894.

Application filed September 16, 1893. Serial No. 485,664. (No model.)

To all whom it may concern:

Be it known that I, SOLOMON E. OVIATT, a citizen of the United States, residing at Lansing, county of Ingham, State of Michigan, have invented a certain new and useful Improvement in Sleighs; and I declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification.

My invention relates to new and useful improvements in sleighs, the object of my invention being to provide a sleigh with novel attachments whereby a carriage or other similar vehicle body may be readily and firmly engaged therewith, the attachment consisting of suitable devices to engage the axles of the vehicle.

To these ends my invention consists of the construction, combination and arrangement of devices and appliances as hereinafter described and claimed and illustrated in the accompanying drawings, in which—

Figure 1 is a view in perspective, illustrating my invention. Fig. 2 is a vertical longitudinal section, showing parts in elevation, and Fig. 3 is a vertical cross section. Fig. 4 illustrates a modification.

The desirability of a device of this kind, whereby a wheeled vehicle can readily and conveniently be put on runners, is well understood.

I carry out my invention as follows:

A represents the runner; B, the rave constructed in any suitable manner.

C represents a knee preferably made of metal, constructed with elongated arms C', C² at its lower end and preferably flanged, as shown at "c" and "c'", to engage the outer and inner sides of the runner, to which the knee is engaged, as by suitable bolts C³. The upper end of the knee is preferably curved outward, as shown more particularly in Fig. 3 and constructed with a horizontal recessed arm C⁴ extending across the upper face of the rave. I prefer to concave the upper face of this arm C⁴, which is made integral with the body of the knee, the knee with its elongated arms C', C² and horizontal arm C⁴ being made in a

single integral piece. Resting upon the recessed upper surface of the horizontal arm C⁴ is a hub or socket D, which is made to fit into the recess of the arm C⁴ to aid in holding the parts together. Any suitable means may be employed to secure the hub or socket upon the arm C⁴ and said arm upon the underlying rave. Thus, as shown, the arm C⁴ may be constructed with integral shoulders "c²," through which are passed clips E and E', said clips also being passed through the rave and held in place by nuts "d" on their under ends. I prefer to locate across the under surface of the rave metallic straps "d'," "d²" between the rave and the nuts, the straps extending across the under surface of the rave, giving additional strength and firmness to the whole device. Instead of said straps, however, washers may be employed, if desired, between the nuts and rave, or both the washers and the straps may be omitted without departing from my invention. The shoulder "c²" may either be perforated or recessed to permit the engagement of the clips therewith. I prefer that the hub or socket shall be constructed with lateral flanges, as shown at "d⁴," "d⁵," to engage over the upper edges of the arm C⁴ and to fit down snugly thereupon. It will be observed that this device is simple, economical and efficient, while it may be readily constructed and applied. The attachment is of a very neat appearance as well as being very practical.

Instead of the two straps "d'," "d²" between the rave and the nuts, it is clear that a single plate of metal might be used instead, to receive the ends of the clips and engaged therewith between the nuts and the rave, as shown in Fig. 4 at D', said figure showing an inverted plan of said plate.

What I claim as my invention is—

1. The combination with a runner and a rave, of a knee secured upon its lower end with the runner and constructed at its upper end with a horizontal arm located on the upper face of the rave, a hub or socket located upon the said arm, and means for holding the hub and arm in position upon the rave, substantially as described.

2. The combination with a runner and a rave, of a metal knee engaged at its lower end

upon the runner and constructed with an integral horizontal arm at its upper end, resting upon the rave, a hub or socket located upon said arm, and means for securing the hub and arm in position upon the rave, substantially as described.

3. The combination with a runner and rave, of a metal knee engaged at its lower end upon the runner and constructed at its upper end with a horizontal integral recessed arm, a hub or socket resting in the recess of said arm, and clips securing said hub upon said arm, and both the hub and arm upon the rave, substantially as described.

4. The combination with a runner and a rave, of a metal knee engaged with the runner at its lower end and constructed with a horizontal arm at its upper end resting upon the rave, a hub or socket resting upon said arm, and clips securing the hub and arm upon

the rave, said arm constructed with integral shoulders to receive said clips, substantially as described.

5. The combination with a runner and a rave, of a metal knee engaging the runner at its lower end and constructed with a horizontal arm at its upper end resting upon the rave, a hub located upon said arm, a plate or straps located on the under surface of the rave, and clips securing the hub upon the arm, and the hub, arm and straps upon the rave, nuts engaging the lower ends of the clip, substantially as described.

In testimony whereof I sign this specification in the presence of two witnesses.

SOLOMON E. OVIATT.

Witnesses:

N. S. WRIGHT,
JOHN F. MILLER.