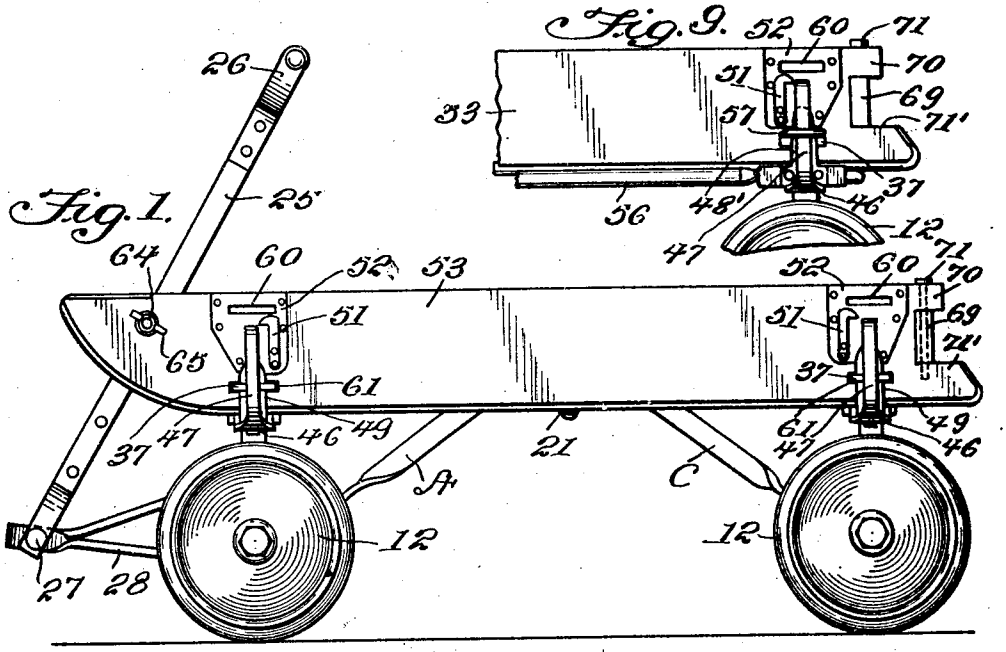
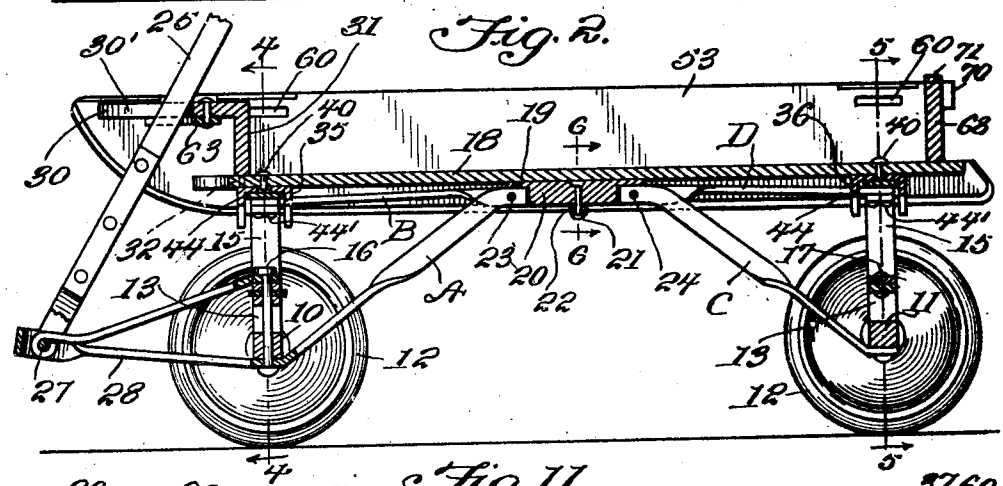
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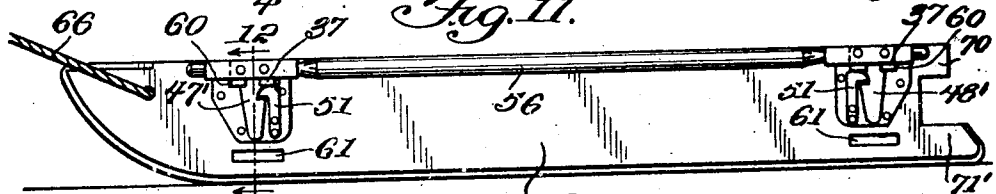
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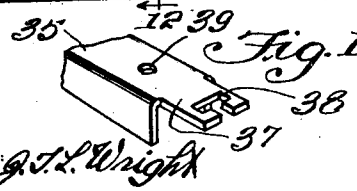
COMBINED WAGON AND SLED

Filed March 15, 1927 2 Sheets-Sheet 1









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WITNESS: J. L. Wright

Aug. 21, 1928. 1,681,853

W. S. HANCE

COMBINED WAGON AND SLED

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Fig. 3.

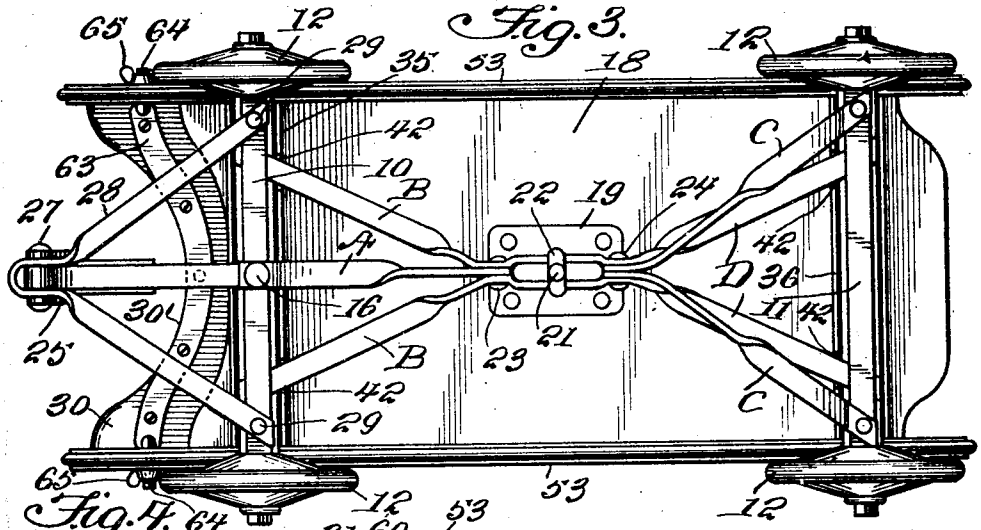


Fig. 4.

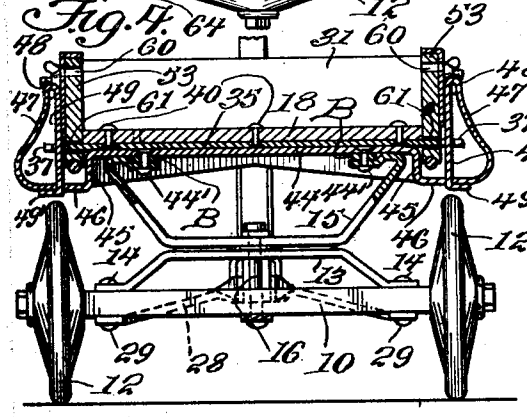


Fig. 7.

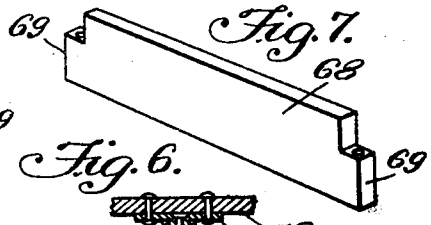


Fig. 6.

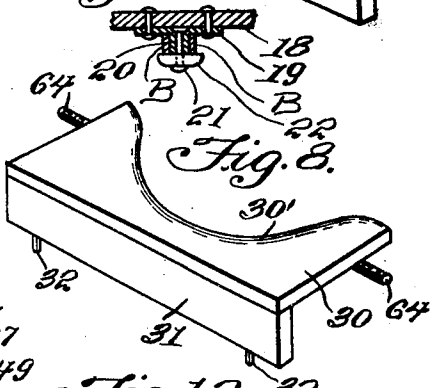


Fig. 8.

Fig. 5.

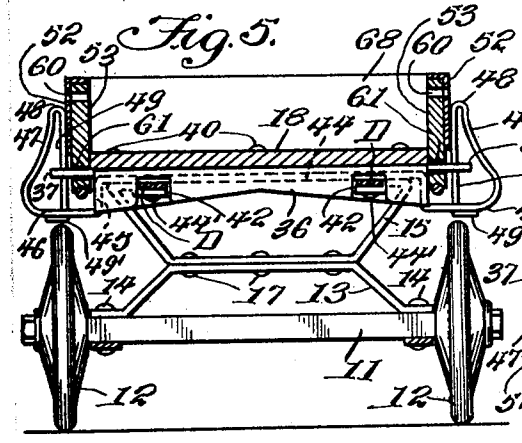
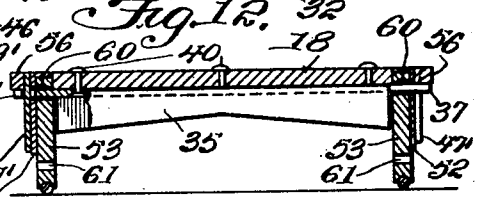


Fig. 12.



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UNITED STATES PATENT OFFICE.

WILLIAM S. HANCE, OF WASHINGTON, DISTRICT OF COLUMBIA.

COMBINED WAGON AND SLED.

Application filed March 15, 1927. Serial No. 175,591.

The object of this invention is to make use of a sled, intended for coasting purposes, as the body of a wagon of the kind employed by children and others for carrying small packages, or for coasting on wheels, and for other sports.

A further object is to provide a sled with a body portion or bottom member which may be shifted from an upper position with reference to the runners to a position in which it will serve to the best advantage as the body of the wagon body, when the vehicle is converted to that use.

A further object is to provide particular engaging and locking means, so that the several elements of the vehicle will be securely retained when assembled.

With the foregoing and other objects in view, the invention consists in the novel construction and arrangement of elements described, illustrated and claimed, it being understood that modifications may be made within the scope of the claims without departing from the spirit of the invention.

In the drawings forming part of this application,

Figure 1 is a view showing the combined sled and wagon, in side elevation.

Figure 2 is a view in vertical longitudinal section.

Figure 3 is a bottom plan view.

Figure 4 is a vertical transverse section, on line 4—4 of Figure 2.

Figure 5 is a vertical transverse section on line 5—5 of Figure 2.

Figure 6 is a detail in section, on line 6—6 of Figure 2.

Figure 7 is a perspective view of an end board for the wagon body.

Figure 8 is a perspective view of an upper front member, this element appearing in bottom plan at the left of Figure 3, and in vertical section at the left of Figure 2.

Figure 9 is a fragmentary view in elevation, showing a portion of the retaining means.

Figure 10 is a fragmentary view in perspective showing an end portion of a transverse channel element, of the kind used above the axles, and in the position shown for instance in Figures 2 and 5.

Figure 11 is a view in side elevation showing that portion of the construction constituting the sled.

Figure 12 is a vertical transverse section on line 12—12 of Figure 11, and therefore showing sled construction.

A front axle for the vehicle is designated 10, a rear axle is shown at 11, and the wheels 12 carried by the axles may be of any suitable type, disk wheels carrying rubber tires being shown in the present instance.

Carried by the axles are transverse elements, bars or braces, such as 13, these elements extending longitudinally of the axles and being secured thereto as shown at 14. Upper complementary elements, bars, bolsters or the like, are designated 15, and the king bolt 16 passes thru elements 13 and 15, and thru axle 10. The corresponding elements 13 and 15 at the rear of the vehicle are secured by means of bolts or the like 17 which extend thru the upper portions of members 13 and 15, and provide a rigid connection.

A bottom element for the wagon, also constitutes the top member of the sled, when shifted to the required position, and is designated 18. Carried by the under side of this element 18 is a plate 19 having a downwardly extending lug or the like 20 thru which a button holding pin or the like 21 passes, the latter being adapted to engage the braces referred to below. The button per se is designated 22, and when in operative position extends in the direction shown in Figure 3.

A plurality of braces, such as A, B, C and D extend to the central retaining means shown in bottom plan in Figure 3, and extend thence to the axles or to the elements described more in detail below, being secured at their outer ends in the manner illustrated, and being secured at points 23 and 24, as shown in Figure 3.

A tongue 25 includes a handle portion 26, and this tongue is pivotally connected at 27 with a V-shaped frame 28, the end portions of which are secured to the under side of the forward axle, as shown at 29. The tongue extends, when in use for guiding purposes, about as shown in Figures 1 and 2, and the transverse board 30 of Figure 8 and elsewhere includes or carries a downwardly extending portion or strip 31 having pins 32 thereon adapted to engage apertures in the element 18, the point of connection being shown at 33. Board 30 is cut away as shown at 30′, and the tongue 25 extends thru this cutaway portion, or may so extend under the conditions specified.

Transverse inverted channel elements or bars, are mounted respectively above the forward and rear axles, and are designated 35 and 36, the ends of these elements including tongues 37 having slots 38 formed therein, the slots being of T-formation, and in Figure 10, the channel element is shown as provided with a hole 39 thru which a pin or pins, such as 40 may extend, it being understood that a plurality of these devices are employed. The channels are cutaway as shown at 42 in Figure 5, and permit of securing the bracing devices extending toward the central portion of the bottom, and beneath the latter, as already explained in connection with Figure 3.

Transverse bars 44 extending within the channel members, and beneath the web portions thereof, are downwardly deflected at 45, and are thence outwardly turned at 46, forming a curve, being then upwardly deflected at 47, bent at 48, and downwardly turned at 49. The lower ends are outwardly turned at 49'. The portions 49 engage the T-shaped slots of Figure 10, producing a locking connection.

The bars 44 extend beneath the web portion of the channel elements and are retained by securing devices 44', being thereby connected with the elements 15 of the lower structure. When the sled is removed, the ends or portions 49 are detached from the slotted ends 38 of the channel elements, and since the latter are secured by devices 40 to the bottom 18, the point of separation is above the bars 44. The oppositely located lugs produced by the T-slot of Figure 10 engage only the wide portion of member 49 of Figure 1, and release between elements 37 and 49 is effected when the body is elevated.

Spring latches or the like designated 51 are secured to plates 52 mounted on the runners 53 of the sled, and the upper ends of elements 51, of hook form, engage the devices or tongues 47, 48 mounting rods 56 as in Figure 11, when the sled is to be used independently of other construction. In Figure 9 rods 56 are idly mounted with their tongues extending upwardly, permitting rings 57 to engage the tongues and retain bars 56 in position for further use.

The ends 37 of the channel elements extend thru the upper slots 60, when the sled is being used independently, but the element 18 constituting the top of the sled, is shifted to position to form the bottom of the wagon body, as shown in Figure 2, the extensions 37 pass thru the lower slots 61 in the runners. The board 30 carries a lower transverse plate 63 having end extensions 64, threaded to receive wing-nuts 65, but under the circumstances shown in Figure 11, the apertures thru which elements 64 pass, may receive the ends of a rope 66.

The end board 68 is shown in detail, and in perspective, in Figure 7, and the end extensions 69 pass under the extension 70 of the runners, as shown in Figure 9. Bolts 71 extending thru the elements 69 and 70, also extend thru lower extensions 71', and provide for retaining the end board, in an obvious manner.

Having described the invention what is claimed is:—

1. In a device of the class described, a plurality of axles and wheels carried thereby, a plurality of longitudinal elements extending in parallel relation, a substantially horizontal member mounted between the longitudinal elements, the latter maintaining their position with reference to the ground, means for securing the horizontal member in an upper position and in a lower position with reference to the longitudinal elements, and means for connecting the horizontal member with the axles.

2. In a device of the class described, a wagon bottom, side members extending longitudinally of the bottom, means for effecting connection between the bottom and the side elements, in a plurality of positions, a lower structure including vehicle running gear, devices detachably connecting the lower structure with the bottom, and devices for connecting the running gear with the side elements.

3. In a device of the class described, a wagon bottom, side members extending longitudinally of the bottom, along the edges thereof, means for effecting connection between the bottom and the side elements, a lower structure including vehicle running gear, devices having interlocking connection for detachably connecting the lower structure with the bottom, these means last named including a transverse bar projecting from the sides of the body and having slotted ends, and upwardly extending devices connected with said lower structure and slidable through the slotted portions and devices for connecting the lower structure with the side elements.

In testimony whereof I affix my signature.

WILLIAM S. HANCE.