Jan. 30, 1923. 1,443,468.

G. W. GOSS ET AL.

WAGON BODY.

FILED JULY 26, 1920.

Fig. 1

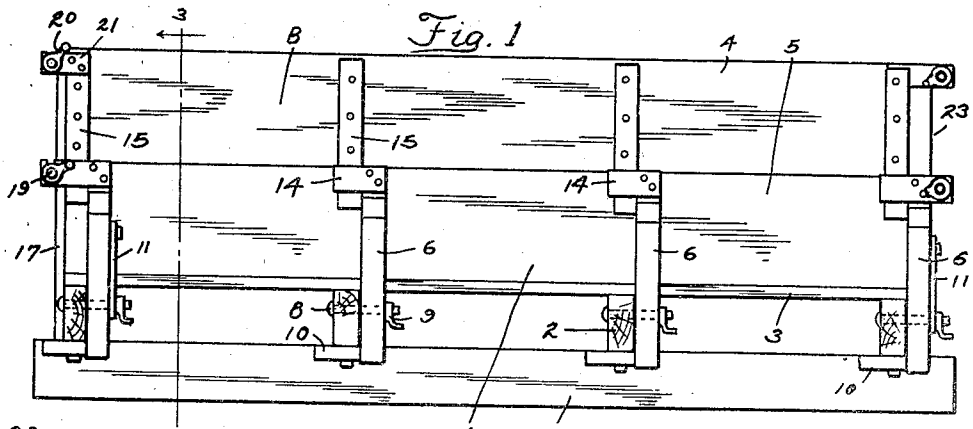


Fig. 2

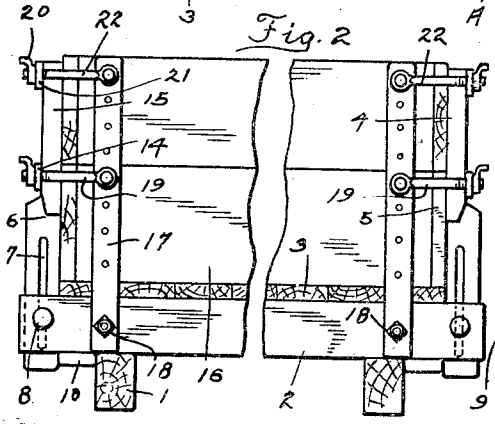


Fig. 3

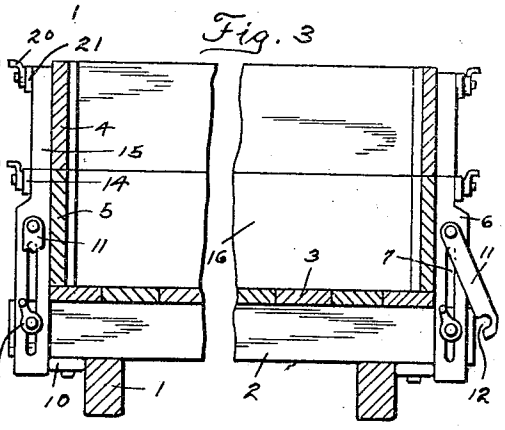


Fig. 5

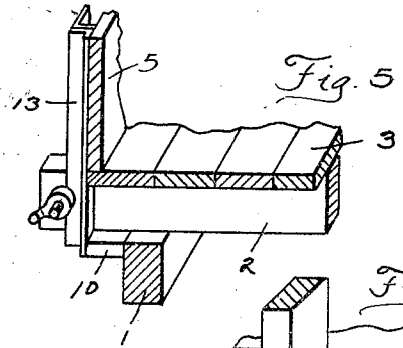


Fig. 4

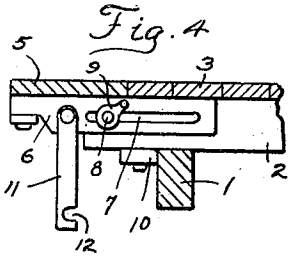


Fig. 6

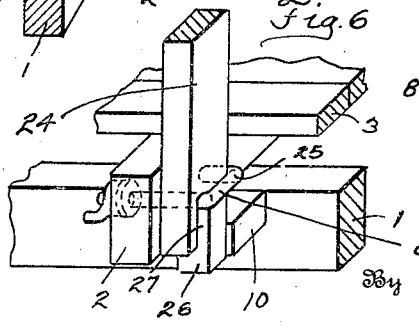
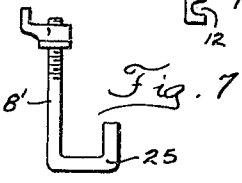


Fig. 7



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Patented Jan. 30, 1923. 1,443,468

UNITED STATES PATENT OFFICE.

GEORGE W. GOSS AND CHARLES E. GOSS, OF BALTIMORE, OHIO.

WAGON BODY.

Application filed July 26, 1920. Serial No. 399,046.

To all whom it may concern:

Be it known that we, GEORGE W. GOSS and CHARLES E. GOSS, citizens of the United States, residing at Baltimore, in the county of Fairfield and State of Ohio, have invented certain new and useful Improvements in Wagon Bodies, of which the following is a specification.

This invention relates to improvements in wagon bodies, and has for its primary object to provide a wagon body wherein an improved side structure is provided, said structure having a pivotal mounting, whereby the same may be adjusted relatively to the base of the body in order that the latter may be best adapted to the needs of the particular commodities carried or transported therein.

Another object of the invention resides in the side structure for wagon bodies which is formed to comprise a plurality of sections, said sections being of a separable nature in order that by the removal or the addition of the sections, the height of the side structure may be correspondingly regulated.

With these and other objects in view, as will appear as the description proceeds, the invention accordingly consists in the novel features of construction, combinations of elements, and arrangements of parts, hereinafter to be fully described and pointed out in the claim hereunto appended.

In the accompanying drawing, forming a part of this specification, and in which similar characters of reference denote like and corresponding parts:

Figure 1 is a side elevation of the improved wagon body comprising the present invention, and illustrating more particularly the construction of the side structure.

Figure 2 is a front elevation of the body.

Figure 3 is a vertical transverse sectional view taken on the plane disclosed by the line 3—3 of Figure 1.

Figure 4 is a detailed transverse sectional view showing the side structure in its lowered position.

Figure 5 is a fragmentary sectional perspective view disclosing a slightly modified form of side structure.

Figure 6 is a fragmentary perspective view disclosing a slightly modified form of the invention, and,

Figure 7 is an elevation of the bolt employed in the modification disclosed in Figure 6.

Referring more particularly to the drawing, the numeral A designates the improved wagon body in its entirety, which body is formed to comprise a pair of spaced longitudinally extending sills 1, upon which are mounted spaced transversely extending cross beams 2, the sills 1 and the beams 2 being preferably formed from relatively heavy timbers. The bottom 3 of the body is composed of spaced longitudinally extending boards which are suitably united to the upper surfaces of the beams 2, said bottom being, however, relatively narrower than the beams 2, in order that the outer ends of the latter will project beyond the side edges of the bottom.

The side structure of the body consists, in this instance, of a pair of upper and lower sections 4 and 5, which are adapted when in vertical positions to rest upon the side margins of the bottom 3 and to be carried in connection with the outer end of the beams 2. To this end, the lower sections are provided at longitudinally spaced intervals with vertically extending bars 6, which have their lower portions provided with elongated slots 7. These slots are so disposed as to be capable of receiving the shank ends of a plurality of bolts or their equivalents 8, which pass transversely through and are mounted within the outer ends of the beams 2. The threaded ends of said bolts are provided with hand actuated nuts 9, which may be suitably rotated so that the bars 6 will be frictionally connected in side by side relationship with the cross beams. It will be observed that when the bars are so connected, the sections 5 will occupy vertical positions and therefore, by reason of the pivotal mounting 8, the lower edges of said sections 5 will rest upon and will be supported by the outer edges of the bottom 3.

To prevent undue swinging movement on the part of said sections, the lower portions of the beams 2 are provided with fixed blocks 10, which constitute stops and are so disposed as to engage with the lower portions of the bars 6 so that normally outwardly swinging movement on the part of the sections 5 will be prevented by the engagement of the bars with said blocks. To prevent undue vertical or upward movement of the sections 5, certain of the bars 6 thereof are provided with swinging latches 11, which latter are provided with notched ends 12. These ends are adapted to engage with the ends of the bolts 8 and are maintained in

such engagement by reason of the hand nuts 9. Therefore, it will be manifest that while the latches 11 are so engaged with the bolts 8, vertical upward movement of the sections 5 will be effectively arrested. However, in order to lower the sections 5 so that the same will lie on an even plane with the bottom 3, the latches 11 are disconnected, and the nuts 9 are loosened so as to release the engagement between the bars 6 and the cross beams 2. When this is done, the sections 5 may be elevated a slight distance so as to permit the lower ends of the bars 6 to clear the blocks 10, whereupon the sections 5 may be swung outwardly, pivoting about the bolts 8. This downward swinging movement on the part of the sections 5 is limited by the contacting of the normally lower ends of the bars 6 with the under side of the bottom 3, as shown in Figure 4, and when the swinging movement of the sections 5 has been arrested, the same will move laterally so that their edges will engage with the side edges of the bottom 3. By again tightening the nuts 9, undue lateral movement of the lowered sides will be prevented. By reason of the engagement of the free ends of the bars 6 with the under side of the bottom 3, the sides will be firmly supported when in their lowered positions and will be capable of receiving and carrying commodities. It will be evident that by virtue of the adjustment described, the wagon body may be readily and quickly adapted to the needs and physical characteristics of the various commodities to be transported by the body.

Of course, the invention is not limited in its scope to the particular form of bar construction described, since other equivalent means may be provided for carrying out the functions assigned to the bars 6. For example, as shown in Figure 5, the sections 5 are equipped with metallic angle bars 13, which perform exactly the same offices as the wooden bars 6. The angle bars 13, it will be noted, permit of the elimination of the slot 7, since the bars 13 may be substantially and firmly bound in lateral connection with the ends of the cross beams 2 by simply engaging with the circumferential edge of the nuts 9. With the exception of the slot 7, the bars 13 are the exact equivalents of the bars 6.

In order to more readily control the height of the side structure, use is made of the separable upper sections 4, which sections are adapted to be connected with the lower sections by providing the bars 6 with plates 14, which extend parallel with the upper edges of the sections 5. These plates in combination with the upper ends of said bars provide sockets, in which the lower ends of bars 15, formed with the upper sections, are adapted to be removably received. This construction enables the upper sections to be readily connected or disconnected with the lower sections, a feature which materially increases the adaptability of the body in meeting special requirements.

The front of the body includes a pair of transversely extending boards or their equivalents 16, which are united by means of metallic strips 17, the latter having their lower ends fastened as at 18, removably or not, with the forward cross beam 2. These strips are equipped with pivoted bolts 19, which are capable of being swung into or out of the notched ends provided upon the forward plates 14, and the ends of said bolts are equipped with hand nuts 20, whereby upon the tightening of said nuts, the side and front structures may be securely connected together. Also, the forward bars 15 of the upper sections 4 are provided with notched plates 21, which are adapted to receive pivoted bolts 22 also carried by the front structure, these bolts act after the manner of the bolts 19 to effect a firm and rigid connection between the front structure and the upper sections 4. Any suitable form of a rear gate structure may be provided at the rear end of the body A, and such a structure has been designated generally by the numeral 23. However, the gate structure disclosed in our co-pending application, Serial Number 399,047, filing date July 26, 1920, may be particularly used in an efficient manner in connection with the body forming the subject matter of this invention. The plates provided upon the rear ends of the bars 6 and 15 are notched so as to receive pivoted bolts provided upon the rear gate structure 23, said bolts being adapted to receive suitable types of binding nuts, whereby said rear gate structure may be rigidly and removably connected with the side sections 4 and 5.

When certain classes of commodities are being carried by the wagon body, the side sections may be removed altogether, and in their place side posts or pickets 24 may be utilized. When the pickets 24 are employed, bolts 8′ are utilized in lieu of the bolts 8. The bolts 8′, as shown in Figure 7, are provided with hook shaped ends 25 which cooperate with the ends of the cross beams 2 to provide sockets in which the lower reduced ends 26 of the pickets 24 are seated, said ends 26 being provided preferably with notches 27 which receive the shank ends of the bolts 8′. This arrangement provides an effective structure for securely yet removably holding the pickets 24 in assembled relationship with the body A.

In view of the foregoing description, taken in conjunction with the accompanying drawing, it will be apparent that the present invention provides a wagon body which may be admirably employed for transport-

ing grain, hay, boxes, barrels and many other widely different commodities, and particularly, the body is used in connection with farm hauling, wherein commodities of widely different physical characteristics are continually being handled. By virtue of the side structure, a wide scope of utility of the body is to be obtained, since by the provision of this structure, the body may be readily converted into the different forms above noted. It will be observed that the bolts are so arranged that the same are not subject to any considerable amount of stress, said bolts normally serving merely to hold contiguous parts in assembled relationship. It will be noted that the ends of the bars 6 project outwardly a sufficient distance to support the side sections 5 when the latter are in their lowered positions, and thus relieve the bars 6 substantially of this function, a feature which materially contributes in providing a strong and substantial construction.

What is claimed is:

In a wagon body, a bottom, cross members arranged beneath and having their outer ends terminated so as to project beyond the side edges of said bottom, a side section capable of assuming vertical or horizontal positions with respect to said bottom, bars rigidly secured to said side section and having the lower ends thereof terminated to engage with the side walls of the projecting ends of said cross members, the said bars being provided with elongated slots, stop blocks fixed to the ends of said cross members and arranged beneath the latter to engage with the extreme lower ends of said bars, securing devices carried by the projecting ends of said cross members and arranged to project through the slots in said bars, and pivoted latch devices carried by said bars and arranged to engage with said securing devices to retain said side section against upward movement with respect to said bottom, the relative arrangement of said slots and securing devices being such as to permit the full weight of said side section when in its elevated and lowered position to rest respectively upon said bottom and the projecting ends of said cross members.

In testimony whereof we affix our signatures.

GEORGE W. GOSS.
CHARLES E. GOSS.