(No Model.)

D. R. COUCH.

VEHICLE BOX.

No. 480,764. Patented Aug. 16, 1892.

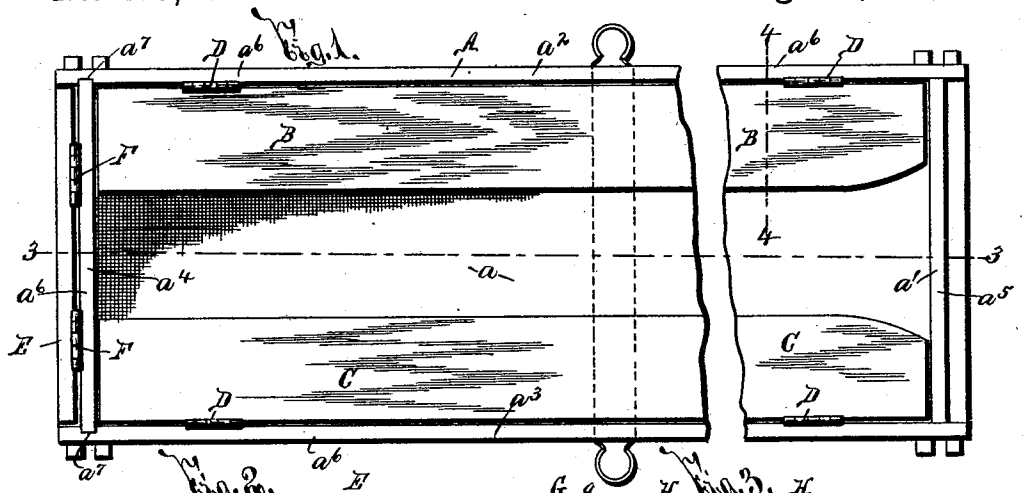

Fig. 1.

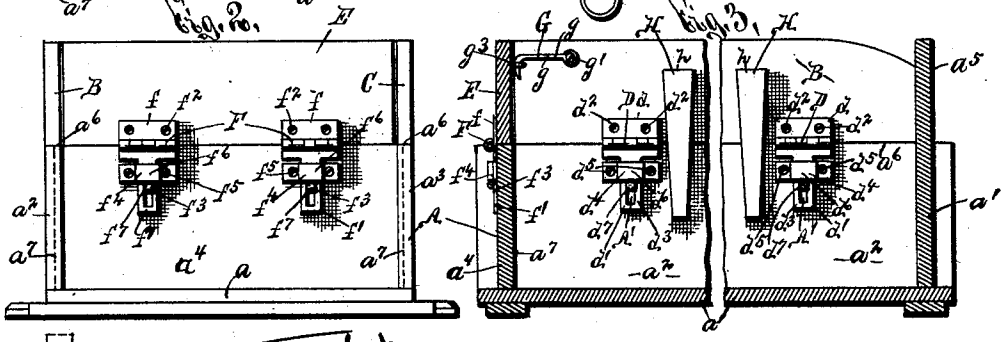

Fig. 2.

Fig. 3.

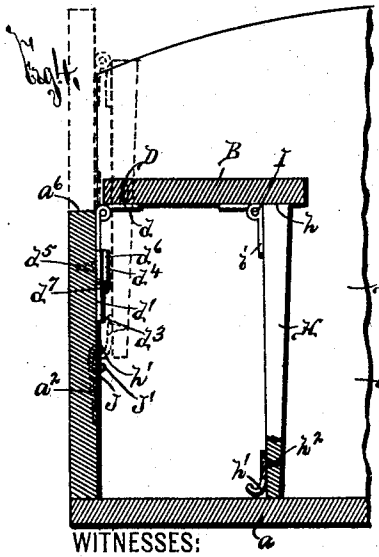

Fig. 4.

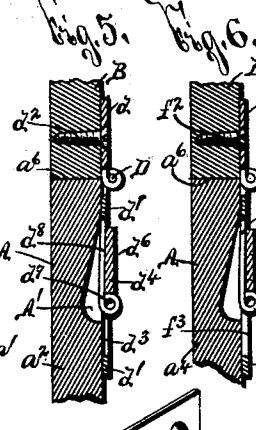

Fig. 5.

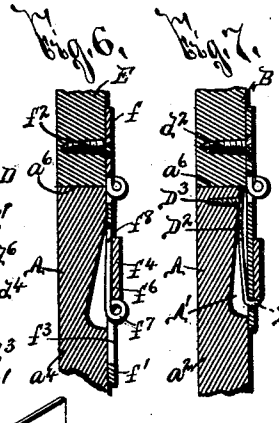

Fig. 6.

Fig. 7.

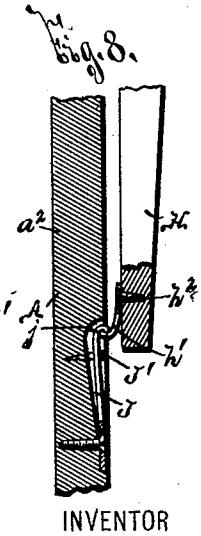

Fig. 8.

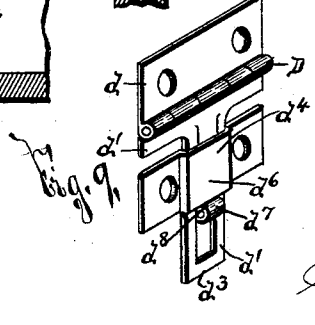

Fig. 9.

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UNITED STATES PATENT OFFICE.

DANIEL R. COUCH, OF CANANDAIGUA, NEW YORK.

VEHICLE-BOX.

SPECIFICATION forming part of Letters Patent No. 480,764, dated August 16, 1892.

Application filed April 18, 1892. Serial No. 429,577. (No model.)

To all whom it may concern:

Be it known that I, DANIEL R. COUCH, of Canandaigua, in the county of Ontario, in the State of New York, have invented new and useful Improvements in Vehicle-Boxes, of which the following, taken in connection with the accompanying drawings, is a full, clear and exact description.

My invention relates to improvements in vehicle or wagon boxes, and has for its object the production of a simple and effective device provided with removable upper side sections for increasing the capacity of the box and permitting its use as a carry-all, &c.; and to this end it consists, essentially, in a box having removable upper longitudinal and rear side sections, hinges having one leaf rigidly secured to the removable upper sections and the other leaf removably engaged with the corresponding side of the wagon-box, a movable stop-shoulder for securing the latter leaf in position, legs hinged to the upper portion of the inner face of the longitudinal side sections for supporting said sections when swung inwardly into a substantially horizontal plane, and in the detail construction and arrangement of the parts, all as hereinafter more particularly described, and pointed out in the claims.

In describing this invention reference is had to the accompanying drawings, forming a part of this specification, in which like letters indicate corresponding parts in all the views.

Figure 1 is a top plan view of my improved wagon-box, a portion thereof being broken out and the removable longitudinal side sections being shown as swung inwardly and the rear section as swung backwardly. Fig. 2 is an end view of the parts as shown at Fig. 1, the side sections being shown in their upright position. Fig. 3 is a longitudinal vertical sectional view taken on line 3 3, Fig. 1. Fig. 4 is an enlarged transverse vertical sectional view, taken on line 4 4, Fig. 1, representing in full lines the upper section as swung inwardly into a substantially horizontal plane and in dotted lines as in its normal position for increasing the capacity of the box. Fig. 5 is an enlarged sectional view of the hinge for securing the removable longitudinal upper section to the corresponding side of the wagon-box. Fig. 6 is a similar sectional view of the hinge for securing the rear removable section to the rear side of the wagon-box. Fig. 7 is an enlarged sectional view, Fig. 6, representing a somewhat-modified form of stop-shoulder for securing the lower leaf of the hinge to the wagon-box. Fig. 8 is an enlarged detail sectional view representing the end of the leg secured to the inner face of the removable box-section as engaged with the stop-shoulder for securing said leg in its normal inoperative position, and Fig. 9 is an isometric perspective of the detached hinge shown at Fig. 5.

A represents the vehicle or wagon box, which is formed of the usual lower, front, longitudinal, and rear sides a, a', a^2, a^3, and a^4. As here illustrated, the top a^5 of the front side a' extends upwardly above the top edges a^6 of the longitudinal and rear sides a^2, a^3, and a^4, and the rear ends of the longitudinal sides a^2 a^3 are formed with upright grooves a^7 for receiving the ends of the rear side a^4 and holding said side in its operative position. If desired, these grooves, instead of being formed by cutting into the inner face of the rear ends of the sides a^2 a^3, may be produced by securing separated cleats to said ends.

B C represent removable longitudinal sections adapted to be secured by hinges D to the corresponding sides a^2 a^3 of the wagon-box. These sections are of suitable height and are preferably formed of less length than the corresponding wagon-box sides, in order that they may swing inwardly between the vertical planes of the front and rear sides.

The hinges D are all of similar construction, and each, as best seen at Figs. 2 and 5, is composed of leaves d d', the leaf d being secured by screws or other suitable means d^2 to the lower portion of the inner face of the sides B and C and the leaf d' being provided with a downwardly-extending arm d^3, adapted to enter a loop d^4, secured to the upper portion of the inner face of the corresponding wagon-box sides a^2 a^3. The loop d^4 is of any desirable form, size, and construction, and is here illustrated as formed of a single metallic strip having its ends secured by screws, bolts, or other similar means d^5 and its central portion formed with a projecting cross-bar d^6.

In order that disengagement of the arm d^3

of the hinge D from the loop d^4 may be prevented, said arm is firmly held in position by a removable stop-shoulder d^7, which may be of desirable form, size, and construction. As preferably constructed, this stop-shoulder consists of an outturned end upon an arm d^8, formed integral with the arm d^3 and adapted to engage the under edge of the bar d^6 of the loop d^4 and be forced backwardly from engagement with said edge within a slot A′ in the sides a^2 a^3.

At Fig. 7 I have shown a somewhat-modified form of engaging shoulder consisting of a lug D′, formed upon the lower end of a spring-arm D^2, secured at its upper end by a screw or other suitable means D^3 to the upper extremity of the slot A′ in the wagon-box. The lower end of the shoulder d^7 is formed rounding, and the slot A′ extends upwardly a sufficient distance, so that as the removable side section is forced to its normal position the shoulder is automatically forced backward by the top edge of the bar d^6 of the loop d^4 within the slot A′ until it registers with the lower edge of said bar, whereupon it automatically swings outward and secures the section in position. To remove the section, the shoulder d^7 is forced inwardly and the section drawn upwardly.

The rear side section E is preferably of less length than the rear wagon-box side a^4, in order that it may swing between the vertical planes of the rearwardly-projecting ends of the longitudinal sides a^2 a^3. This removable section E is secured in position by hinges F, each consisting of leaves f f' of similar construction to the corresponding leaves of the hinges D, the leaf f being secured to the lower portion of the outer face of the section E by screws or other means f^2 and the leaf f' being provided with an arm f^3, adapted to engage a loop f^4, secured at f^5 to the upper portion of the outer face of the rear wagon-box side a^4, in order that the upper side section may swing outwardly. The leaf f' is held in position by a stop-shoulder f^7, which is adapted to engage the projecting cross-bar f^6 of the loop f^4, and is provided upon an arm f^8, formed integral with the arm f^3 of said leaf. It will thus be understood that the longitudinal removable sections swing inwardly and the rear sections outwardly, and that these sections may be readily placed in position or removed, if desired.

G G represent ties between the ends of the rear section E and the adjacent ends of the side sections B C, consisting, preferably, of a hook g, having one end hinged at g' to the end of the side sections and the other provided with an arm g^2, engaged with the loop g^3, secured to the adjacent end of the end section E.

H represents legs for supporting the longitudinal sections B C when swung inwardly, as shown at Figs. 1 and 4. The legs are preferably secured to the longitudinal removable sections by hinges I, each being composed, preferably, of a leaf i, secured to the upper portion of the inner face of the sections B and C, and a second leaf i', secured to the outer face of the end of the leg, whereby when the legs are in their operative position, as shown at Figs. 1 and 4, the upper ends h thereof rest against the inner faces of the longitudinal upper sections. The lower ends of the leg rest against the bottom wall a of the wagon-box, and the sections B C are firmly supported in position and may be utilized as seats when desired to use the wagon-box as a carry-all, &c. In order that the legs H may be held in their inoperative position, I provide the same with a shoulder or hook-shaped projection h', suitably secured thereto, as by a screw h^2, and adapted to engage a corresponding shoulder or hook-shaped projection j of a spring J, mounted in an upright slot in the inner face of the box-section.

A suitable stop J′ prevents the spring J from undue outward movement, and it will be evident that upon swinging upward the sections B and C the shoulders or hooks h' are automatically engaged with the hooks or shoulders j.

As the operator forces the longitudinal sections B C downwardly, it is evident that the lower end of the leg moves downwardly, and the construction of the hooks h' j is such that this movement is sufficient to disengage the legs from the shoulders j.

The operation of my invention will be readily perceived from the foregoing description and upon reference to the drawings, and it will be particularly noted that the same is simple in construction, effective in operation, and does not materially increase the cost of a wagon-box, although greatly increasing its capacity and rendering the same capable of use as a carry-all, &c.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The combination, with a wagon-box, of an upper removable side section and a hinge having one leaf secured to the removable side section and the other leaf removably engaged with the corresponding side of the box, substantially as and for the purpose described.

2. The combination, with a wagon-box, of an upper removable side section, a loop secured to the corresponding side of the wagon-box, and a hinge having one leaf secured to the movable side section and the other leaf registered with said loop, substantially as and for the purpose specified.

3. The combination, with a wagon-box, of an upper removable side section, a hinge having one leaf secured to the removable side section and the other leaf removably engaged with the corresponding side of the box, and a movable stop-shoulder for securing the latter spring-leaf to the side of the wagon-box, substantially as and for the purpose set forth.

4. The combination, with a wagon-box, of an upper removable side section, a loop se-

cured to the corresponding side of the wagon-box, a hinge having one leaf secured to the movable side section and the other leaf registered with said loop, and a movable stop-shoulder secured to the latter spring-leaf for engaging the loop and securing the removable side section to the wagon-box, substantially as and for the purpose described.

5. The combination, with a wagon-box, of an upper removable side section, a loop secured to the corresponding side of the wagon-box, and a hinge having one leaf secured to the movable side section and the other leaf provided with an arm registered with said loop and with a movable frame having one end formed with a projecting stop-shoulder adapted to engage the lower edge of the loop, substantially as and for the purpose specified.

6. The combination, with a wagon-box, of a pair of removable upper side sections hinged to the corresponding sides of the wagon-box and a rear side section hinged to the rear side of the wagon-box, substantially as and for the purpose described.

7. The combination, with a wagon-box, of a pair of removable upper side sections hinged to the corresponding sides of the wagon-box, a rear side section hinged to the rear side of the wagon-box, and ties between the ends of the rear side section and the adjacent ends of the former side sections, substantially as and for the purpose specified.

8. The combination, with a wagon-box having upright slots in the rear ends of its longitudinal sides and a rear side having its ends removably mounted in said slots, of removable upper side sections hinged to the corresponding sides of the wagon-box and formed of less length than said sides, whereby the upper side sections swing within the vertical planes of the front and rear sides of the wagon-box, and a rear removable upper section hinged to the rear side of the wagon-box and formed of less length than the rear side, whereby said rear upper section swings between the vertical planes of the longitudinal sides of the wagon-box, substantially as set forth.

9. The combination, with a wagon-box, of a pair of removable upper side sections hinged to the corresponding sides of the wagon-box and supporting-legs movably secured to the upper portion of the inner sides of the removable side sections for supporting said sections when swung inwardly into a substantially horizontal plane, substantially as specified.

10. The combination, with a wagon-box, of a pair of removable upper side sections hinged to the corresponding sides of the wagon-box, supporting-legs movably secured to the upper portion of the inner sides of the removable side sections for supporting said sections when swung inwardly into a substantially horizontal plane, and a movable stop for retaining said legs in their inoperative position, substantially as set forth.

In testimony whereof I have hereunto signed my name, in the presence of two attesting witnesses, at Syracuse, in the county of Onondaga, in the State of New York, this 18th day of February, 1892.

DANIEL R. COUCH.

Witnesses:
CLARK H. NORTON,
L. M. BAXTER.