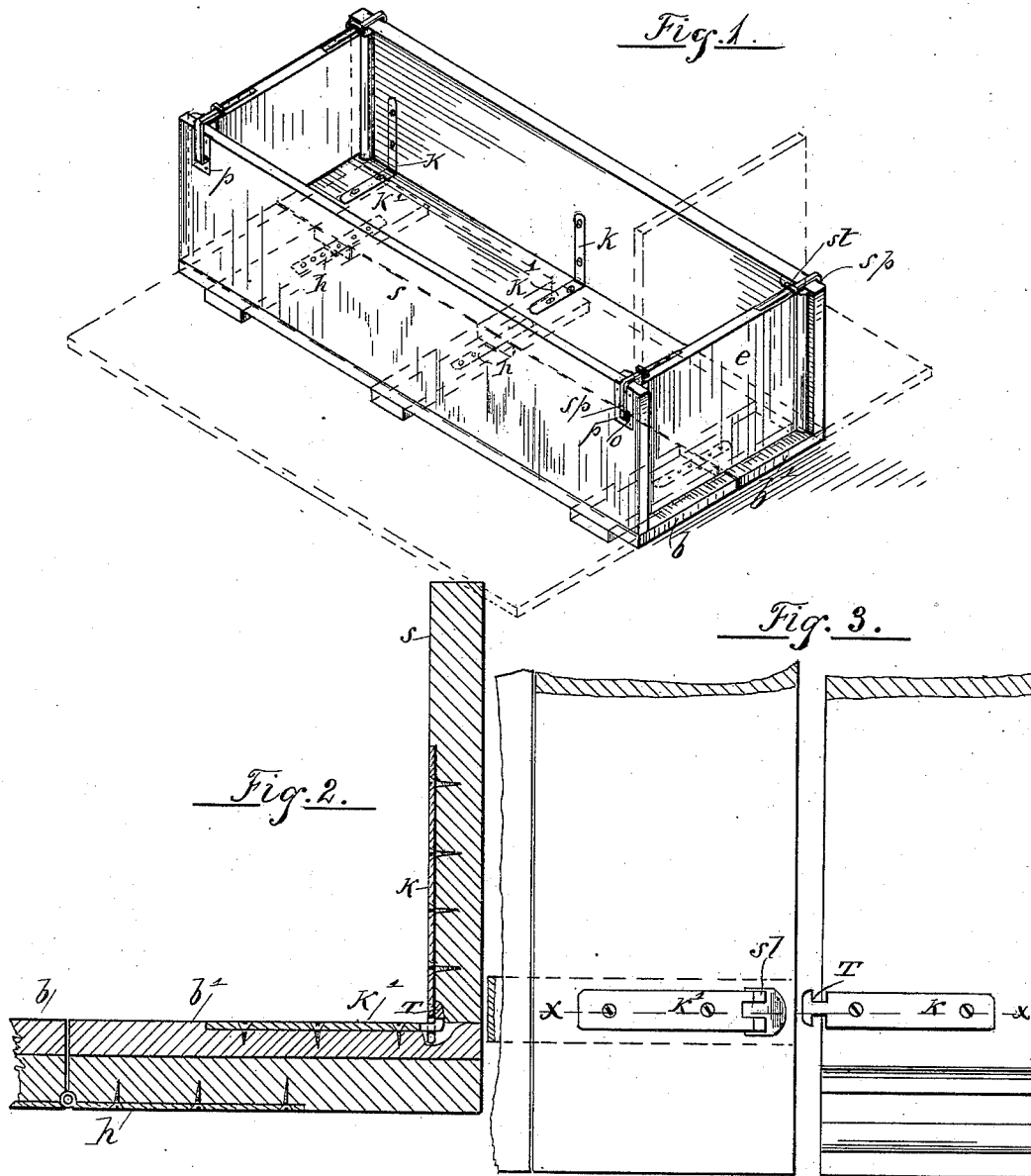


(No Model.)

D. C. LANG.
COLLAPSIBLE WAGON BOX.

No. 419,689.

Patented Jan. 21, 1890.



WITNESSES:
Jacob M. Cooper
E. B. Griffith

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UNITED STATES PATENT OFFICE.

DENNIS C. LANG, OF INDIANAPOLIS, INDIANA.

COLLAPSIBLE WAGON-BOX.

SPECIFICATION forming part of Letters Patent No. 419,689, dated January 21, 1890.

Application filed September 16, 1889. Serial No. 324,143. (No model.)

To all whom it may concern:

Be it known that I, DENNIS C. LANG, of Indianapolis, county of Marion, and State of Indiana, have invented certain new and useful
5 Improvements in Collapsible Wagon-Boxes; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, in which like letters refer to like
15 parts.

My invention relates to the construction of wagon-boxes so that they can be taken apart and easily handled, stacked up, and readily put together so as to be secure and solid at
15 all points, as will be understood from the following description.

In the drawings, Figure 1 is a perspective view of my wagon-box, the dotted lines indicating the position of one of the ends when raised and the sides when laid down flat. Fig. 2 is a section on the line *x x*, Fig. 3, when the side is locked to the bottom of the hinges. Fig. 3 is a detail view of the T-hinge which locks the sides to the bottom. Figs. 2 and 3
25 are drawn on a larger scale than Fig. 1.

In detail the bottom is composed of two parts *b b'*, hinged together by strap-hinges *h*, near each end and in its center.

s are the sides, and *e* the ends. The sides
30 are connected to the bottom by a knee-hinge formed of two parts *k k'*, these parts being countersunk so as to be flush with the bottom and sides, and secured by screws or nails. The part *k* of the hinge has a T-shaped projection at the bottom, and the part *k'* has a socket at the bottom, which has an opening corresponding to and intended to receive the T-shaped end of the other part, as shown in Fig. 3, and it will be seen that one may be
40 readily entered into the other and detached therefrom, and this is done by superimposing the side upon the bottom so that the T of the part *k* will enter into the slot of the corresponding part and lock together when the parts are thrown up at right angles to each other. For convenience three of these hinges are preferably used upon each side; but two may subserve the purpose, and more may be used, if desired. I preferably use three strap-hinges, which are conveniently connected by
50 cleats to the bottom for greater strength.

The end piece *e* slides in grooves formed in the sides, and over each corner of the end passes a spring *sp*, which is held in place by a staple *st*, and the other end of this spring
55 passes over and around the side, engaging with an opening *o*, formed in the metal plate *p*, fastened to the side near the end. The object of this plate is simply to prevent the wearing away of the wood. These springs
60 have inturned ends, so that they will enter the openings *o* in the plate, and by pulling these out the ends *e* may be raised up and taken out of the grooves and laid aside. When the end pieces are taken out, the sides
65 are then laid down upon the bottom and separately removed by unlocking the T-hinge that connects them. The bottom may then be folded over, one-half upon the other, in a reverse way by means of the strap-hinge that
70 connects the parts thereof.

It will thus be seen that the entire wagon-box may be taken to pieces, so that the end pieces and the sides will be separate, and the bottom will form one piece folded one half
75 upon the other, and an ordinary man can easily take the device apart and put it away. The sides and ends may be removed and the bottom alone used upon the running-gear, serving the same purpose as a truck, and the
80 whole structure when put together is strong and serviceable, and when taken apart can be easily put out of the way and preserved from the weather.

If desirable, instead of the springs an ordinary rod may be used, with a nut at the end for holding the end-boards in place; but the springs are more easily managed.

What I claim as my invention, and desire to secure by Letters Patent, is the following: 90

1. A collapsible wagon-box comprising a bottom composed of sections hinged together, sides connected to such bottom by means of detachable hinges composed of a piece *k*, having a T-shaped head, and a piece *k'*, having a
95 slot *s'*, to receive such T-shaped head, end pieces *e*, sliding in grooves formed in the sides and locked by springs *sp*, substantially as shown and described.

2. A collapsible wagon-box comprising a
100 bottom composed of two or more sections *b b'*, the sides connected to such bottom by means

of detachable hinges composed of two parts
k, having a T-shaped head, and *k'*, having a
slot *s'* to receive the same, and end pieces *e*,
adapted to slide in grooves formed in the
5 sides and locked by the spring *sp*, having an
upset end for engaging with the opening *o* in
the iron plate *p*, secured to the sides of the
box, all combined substantially as shown and
described.

In witness whereof I have hereunto set my
hand this 5th day of September, 1889.

DENNIS C LANG.

Witnesses:

C. P. JACOBS,
E. B. GRIFFITH.