F. G. DAVIS.

TRUCK PLATFORM.

APPLICATION FILED JAN. 27, 1920.

1,402,146.

Patented Jan. 3, 1922.

2 SHEETS—SHEET 1.

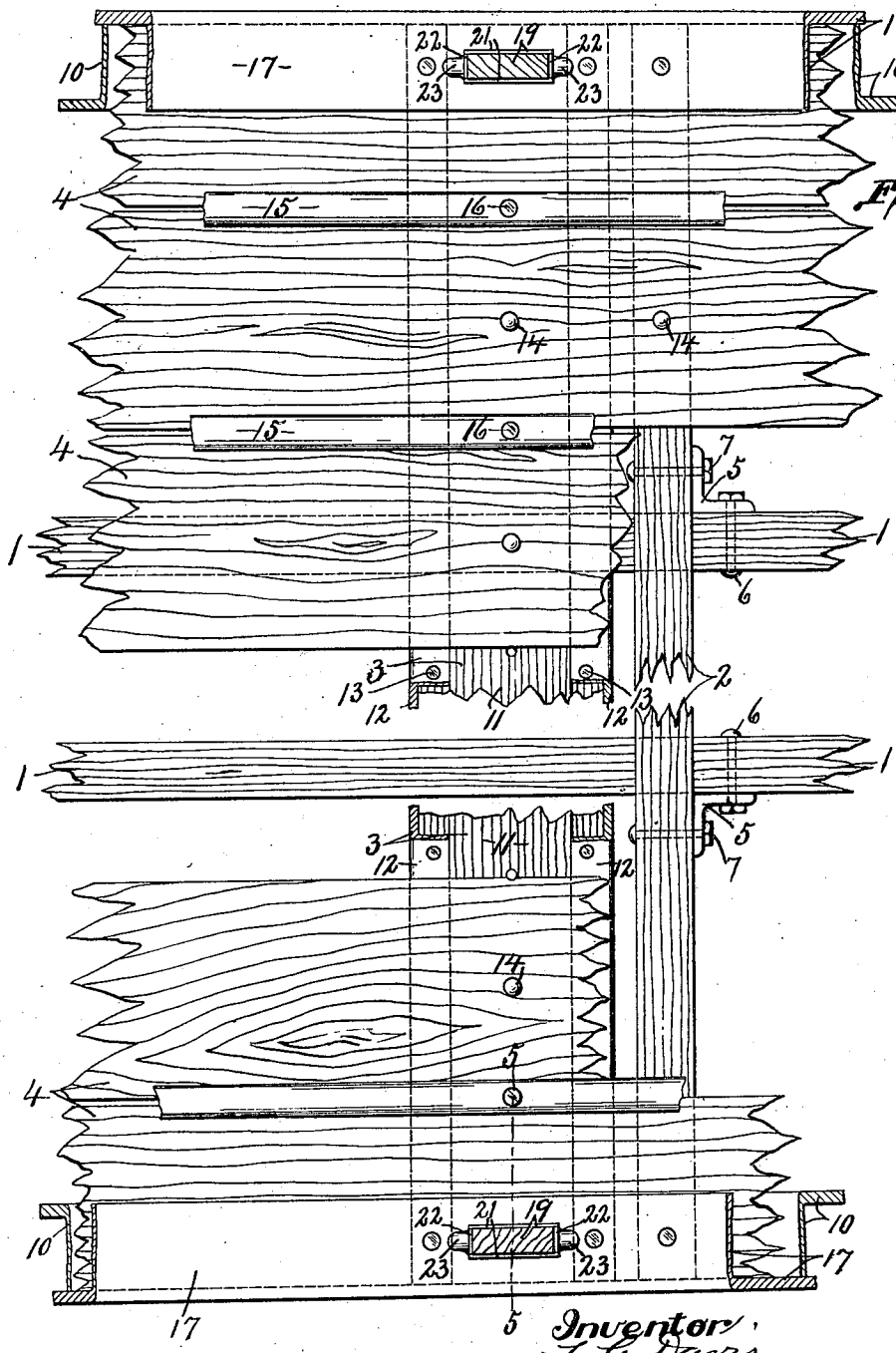


Fig. 1.

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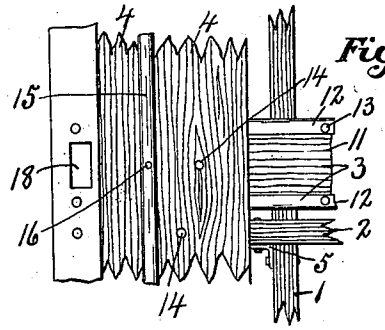


Fig. 3.

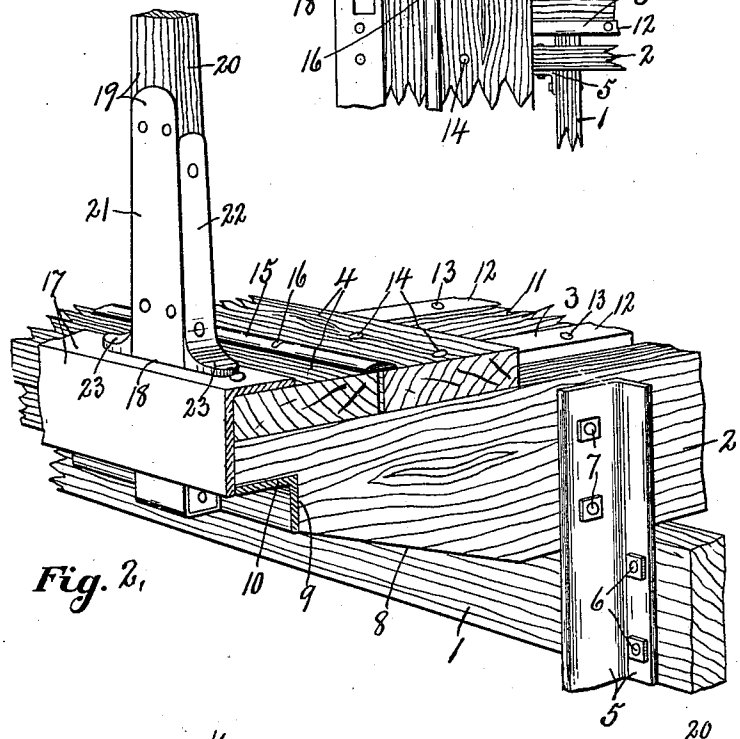


Fig. 2.

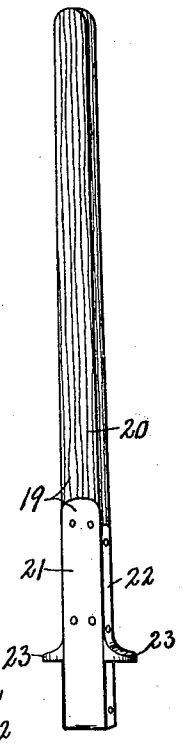


Fig. 6.

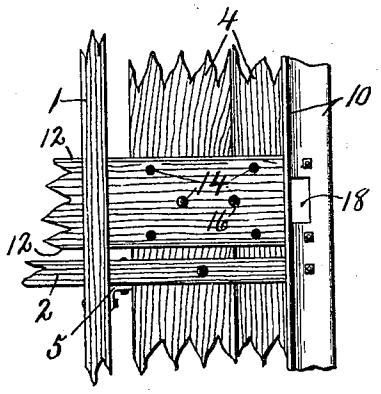


Fig. 4.

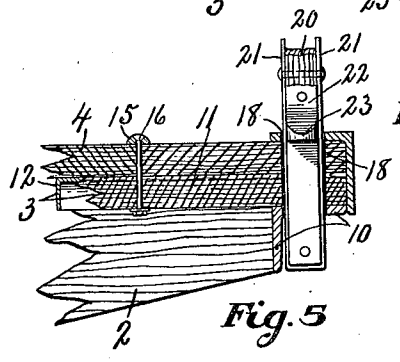


Fig. 5.

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UNITED STATES PATENT OFFICE.

FRANCIS G. DAVIS, OF WATERTOWN, NEW YORK, ASSIGNOR TO H. H. BABCOCK COMPANY, OF WATERTOWN, NEW YORK, A CORPORATION OF NEW YORK.

TRUCK PLATFORM.

1,402,146. Specification of Letters Patent. Patented Jan. 3, 1922.

Application filed January 27, 1920. Serial No. 354,491.

To all whom it may concern:

Be it known that I, FRANCIS G. DAVIS, a citizen of the United States of America, of Watertown, in the county of Jefferson, in the State of New York, have invented new and useful Improvements in Truck Platforms, of which the following, taken in connection with the accompanying drawings, is a full, clear, and exact description.

This invention relates to certain improvements in vehicle bodies, but more particularly to truck platforms having load-retaining stakes along the sides and ends thereof.

One of the objects is to produce a platform which is capable of more effectively resisting warpage, strains, and wear than has heretofore been practiced, without adding materially to the weight or cost of production and at the same time to provide a more effective means for reducing the wear upon the stakes and walls of the sockets in which they are inserted.

Other objects and uses relating to specific parts of the platform will be brought out in the following description.

In the drawings:—

Figure 1 is a top plan, partly broken away, of a portion of a truck platform embodying the various features of my invention.

Figure 2 is a perspective view of a portion of the same platform showing the manner of connecting the cross-bars to the sills and the floor to the cross-bars, and also showing a portion of the reinforcement along one edge of the platform for receiving the stakes, a portion of one of the latter being shown in operative position.

Figures 3 and 4 are respectively a top plan and an inverted plan of a portion of the same platform on a reduced scale.

Figure 5 is a detail sectional view taken on line 5—5, Figure 1, except that the lower end of the stake is shown in elevation.

Figure 6 is a perspective view of one of the stakes.

As illustrated this platform comprises a pair of lengthwise sills —1—, a suitable number of cross-bars, as —2— and —3— and lengthwise floor boards —4—, all of which parts are secured together and reinforced in a manner hereinafter described.

The sills —1— may be supported in any well-known manner upon the chassis of a motor truck or other vehicle in spaced relation and constitute the main support for the remaining portions of the platform of any desired length or width, but are preferably made of wood beams of rectangular cross-section and of greater vertical height than width for strength and rigidity.

The cross-bars —2— are also preferably made of wood of rectangular cross-section and of greater vertical height than width and are mounted upon the upper edges of the sills —1— at right angles thereto to constitute the main supports for the floor —4—.

Each cross-bar —2— is rigidly connected to the sills —1— by a pair of vertically disposed angle irons —5— having a vertical height substantially equal to the combined vertical width of one of the sills and cross-bar, the flanges of each angle iron being disposed at right angles to each other to conform to the right-angular relation between the sills and cross-bar.

Each angle iron serves as a means of connection between one of the sills and the cross-bar and for this purpose one of the flanges is secured by bolts —6— to the outer upright face of the corresponding sill —1— while the other flange is secured by bolts —7— to one of the upright faces of the cross-bar —2—, both angle irons being secured to the same upright face of said cross-bar in such manner that the lower ends thereof are substantially coincident with the lower edges of the sills while the upper ends are disposed in approximately horizontal planes to the upper edges of the cross-bars —2—, but just sufficiently below said upper edges to prevent contact of the flooring therewith.

The lower and upper edges of the main bodies of the cross-bars between the outer edges of the angle irons —5— are parallel but the lower edges of the portions thereof just at the outside of the angle irons are inclined upwardly at —8—, the outer ends of each cross-bar being provided with rectangular recesses —9— extending upwardly from the lower edges and a short distance inwardly from the outer end faces thereof for receiving a horizontally disposed angle iron —10— of substantially the same cross-sectional form and dimensions as that of the recess —9— so that the outer edges of the upper flanges will be disposed in a vertical plane substantially coincident with the corresponding outer end faces of the overlying portions of the cross-bar.

These angle irons —10— preferably extend the entire length and across the ends of the platform and are bolted tightly to the under sides of the overlying portions of the cross-bar in a manner hereinafter described to form a convenient support for the ends of the cross-pieces —3—.

The cross-pieces —3— are arranged parallel with and of substantially the same length as the cross-bars —2— but are of substantially the same vertical thickness as the portions of the cross-bars —2— which overlie and rest upon the upper faces of the horizontal flanges of the angle irons —10— so that when placed in operative position, their outer ends are substantially coincident with the outer edges of the horizontal portions of said angle irons —10— while their outer faces are disposed in a horizontal plane substantially coincident with that of the outer faces of the cross-bars —2—.

Each cross-piece —3— is preferably composed of a flat section —11— of wood and a pair of angle irons —12— secured to the opposite longitudinal edges of the wood section —11— so as to extend from end to end thereof with one set of flanges resting upon the upper face of the wood section and the other set of flanges resting against the outer edges of the wood section, said angle plates —12— being secured to the wood section —11— by bolts —13—.

It is now evident that while the cross-bars —2— rest directly upon the upper edges of the sills —1—, the cross-pieces —3— are supported at their ends by the horizontal flanges of the angle irons —10— some distance above the sills and serve not only to assist in holding said angle irons —10— in parallel spaced relation, but also serve as additional supports for the floor —4— in addition to their function of partially supporting the stakes and in holding other reinforcing members presently described in fixed relation to each other and to the platform.

The flooring —4— consists of a series of boards or planks running lengthwise of the vehicle body and supported directly upon the upper faces of the cross-bars —2— and cross-pieces —3—, and are secured to those parts by bolts —14—. The edges of the several boards of the floor are arranged in slightly spaced relation, the spaces being covered by metal strips —15— which are secured to the cross-pieces —3— by bolts —16— passing through said spaces, as shown more clearly in Figure 5.

The longitudinal edges and also the ends, if desired, are reinforced by angle irons —17— having horizontal flanges resting upon the face of the outer edges of the flooring, and vertical flanges extending outwardly across the outer edges and outer end faces of the flooring —4—, cross-bars —2—, and cross-pieces —3— respectively, said angle plates being bolted to the cross-bars and flooring by the same bolts which fasten the angle plates —10— in place.

The angle plates —10— and —17—, floor —4—, and cross-pieces —3— are provided with registering vertical apertures or openings —18— for receiving the lower ends of suitable stakes —19—. Each stake consists of a relatively long wooden section —20— and metal sections —21— and —22— embracing the lower end of the wooden section —20— on all four sides from the lower end upward a distance somewhat greater than the vertical length of the registering apertures —18— so as to establish metal bearings between the stakes and platform when said stakes are in operative position, the metal sections —22— at the front and rear sides of the wood portion —20— being provided with forwardly and rearwardly extending lugs or feet —23— adapted to rest upon the upper face of the angle iron —17— to hold the stake against undue downward movement and at the same time to brace the same against forward and rearward vibration, it being understood that the cross-sectional area of the portion of the stake which enters the opening —18— is substantially equal to that of the opening to assure the holding of the stake in a vertical position.

The angle irons —10— and —17— not only serve to tie the cross-bars —2—, cross-pieces —3—, and flooring —4— together, but also brace those parts against relative movement and thereby greatly add to the strength and rigidity of said platform, while at the same time affording metal bearings for the stakes at the top and bottom of the outer edges of the platform, which bearings coact with the metal sections of the stake to reduce wear of those parts and to increase the life thereof.

What I claim is:

1. A platform for vehicle bodies comprising spaced lengthwise sills and spaced cross-bars resting upon and projecting laterally beyond said sills, metal plates secured to the under sides of the outer ends of the cross-bars, flooring secured to the upper edges of the cross-bars and extending laterally over said metal plates, and separate metal plates secured to the upper faces of the outer edges of the flooring directly above and parallel with the first-named plates, said plates and flooring having registering stake-openings, the second-named plates having lengthwise flanges projecting downwardly across the outer ends and outer edges of the cross-bars and flooring respectively.

2. A platform for vehicle bodies comprising spaced lengthwise sills and spaced cross-bars resting upon and projecting laterally beyond said sills, lengthwise metal plates secured to the under sides of the outer ends of the cross-bars, cross pieces having their ends

supported upon the lengthwise plates separate from the sills and cross-bars and having their upper faces disposed in substantially the same horizontal plane as that of the cross-bars, and flooring resting upon the upper faces of said cross-bars and cross-pieces.

3. In combination with the sills, cross-bars, and flooring of a vehicle body, lengthwise angle irons secured to the outer ends of the cross-bars, cross-pieces having their ends resting on said angle irons and having their upper faces disposed in substantially the same horizontal plane as that of the upper edges of the cross-bars, flooring secured to the upper faces of the cross-bars and cross-pieces, and angle irons secured to the upper face of the outer edges of the flooring and projecting downwardly across the outer end and edge faces of the cross-bars, cross-pieces, and flooring respectively, said flooring, cross-pieces, and metal plates being provided with registering stake openings.

4. A platform for trucks comprising opposite lengthwise sills in spaced relation transversely of the platform, cross-bars resting upon and secured to the upper edges of the sills lengthwise in spaced relation of the platform and extending outwardly some distance beyond the sills, flooring secured to the upper faces of the cross-bars and extending to the outer end faces of said cross-bars, the outer ends of the cross-bars being provided with rectangular recesses in their lower sides, angle irons seated in said recesses and extending lengthwise of the platform with one flange of each disposed in a vertical plane and other flanges projecting outwardly from the upper edges of the vertical flanges to the outer edges of the cross-bars, additional angle irons extending lengthwise of the platform at opposite sides thereof and each having an inwardly projecting horizontal flange secured to the upper edge of the flooring and a vertical flange extending downwardly across the outer edges of the flooring and end faces of the cross-bars and also across the outer edges of the horizontally projecting flanges of the first named angle irons to form intervening grooves between the horizontal flanges of both angle irons for the reception of the adjacent edges of the flooring and adjacent ends of the cross-bars, and reinforced cross-pieces secured to the under side of the flooring and having their opposite ends extending into said grooves, the horizontal flanges of the angle irons and adjacent portions of the flooring and reinforced bars being provided with vertically registering stake openings.

In witness whereof I have hereunto set my hand this 16th day of January, 1920.

FRANCIS G. DAVIS.

Witnesses:

KATHERINE G. MONIER,

E. D. HOLDEN.