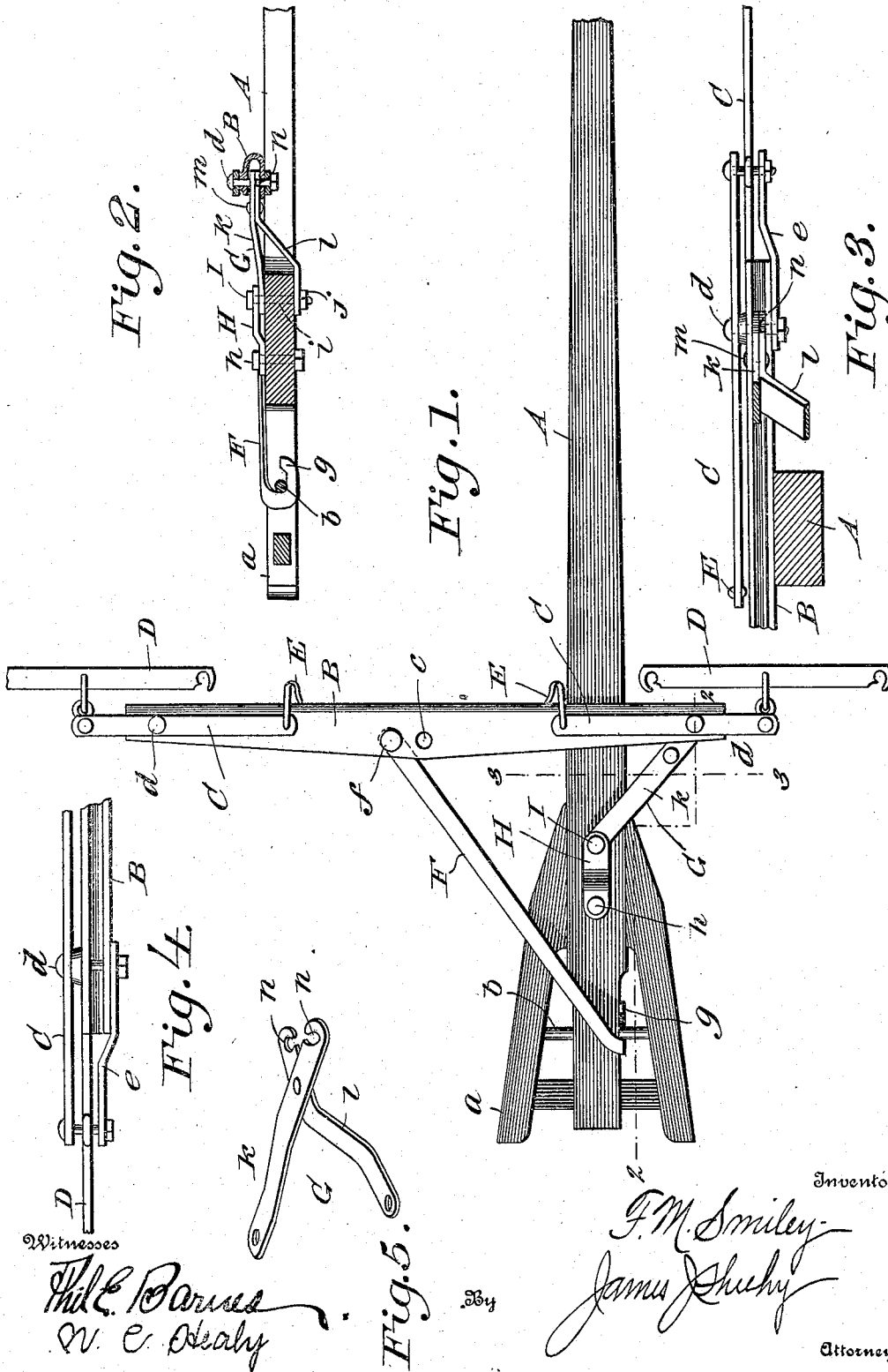


941,545.

Patented Nov. 30, 1909.



UNITED STATES PATENT OFFICE.

FRANKLIN M. SMILEY, OF GOSHEN, INDIANA.

DRAFT APPLIANCE.

941,545.

Specification of Letters Patent.

Patented Nov. 30, 1909.

Application filed April 9, 1909. Serial No. 488,845.

To all whom it may concern:

Be it known that I, FRANKLIN M. SMILEY, citizen of the United States, residing at Goshen, in the county of Elkhart and State of Indiana, have invented new and useful Improvements in Draft Appliances, of which the following is a specification.

My invention relates to draft appliances; and it has for its general object to provide a simple and efficient draft appliance adapted to be expeditiously and easily connected with and used to advantage on either a vehicle tongue or a plow, harrow or analogous apparatus.

The invention will be fully understood from the following description and claims when the same is read in connection with the drawings, accompanying and forming part of this specification, in which:

Figure 1 is a plan view illustrating the appliance constituting the best practical embodiment of my invention known to me, as the same appears when applied to a vehicle tongue. Figs. 2 and 3 are detail sections taken on the lines 2—2 and 3—3, respectively, of Fig. 1. Fig. 4 is a detail rear elevation illustrative of the manner in which the left hand whiffletree and the lever carrying the said whiffletree are connected with the main bar of the apparatus. Fig. 5 is a detail perspective view illustrative of the manner in which the upper and lower members of the short draft bar are pivotally connected together, and also illustrating the manner in which the said members may be adjusted to separate their forward ends when the member is disconnected from the tongue with a view of permitting of the member being readily disconnected from the pin adjacent the right hand end of the main bar.

Similar letters designate corresponding parts in all of the views of the drawings, referring to which:

A is a vehicle tongue having the usual hounds *a* and also having a cross-rod *b* carried by the hounds.

B is the main bar of the appliance which is preferably, though not necessarily, made of sheet-metal, and is of U-shape in cross-section, Fig. 2. At or adjacent its middle the said main bar B is provided with a vertical aperture *c* for the passage of the pin (not shown) through which the main bar will be connected with a plow, harrow or analogous device when the appliance is used

on such a device. Adjacent its opposite ends the said main bar B is provided with permanently connected pins *d* which carry levers C and also serve for the connection of links *e*, Figs. 3 and 4, which links are disposed below the end portions of the main bar and extend beyond the ends of said main bar, as illustrated. Connected with the outer arms of the levers C and also with the links *e* are whiffletrees D, while connected to the inner arms of said levers C are hooks or other appurtenances E, through the medium of which the traces on the middle horse may be connected with the inner arm of the levers. Thus it will be manifest that while the appliance is adapted for three horses, it comprises but two trees D and is consequently simple and inexpensive and at the same time light in weight.

When my novel appliance is to be applied to and used on a tongue such as A, the main bar B is connected with the tongue through the medium of a long draft bar F and a comparatively short draft bar G. The long draft bar F is pivoted to the main bar B at *f*—*i. e.*, at a point slightly to the left of the aperture *c*, and at its rear end the said draft bar F is provided with a vertically disposed hook *g* which rests at an acute angle to the major portion of the bar, Fig. 1, and is therefore adapted, when the main bar B is in working position, to engage the cross-rod *b* in the hounds and rest close against the right hand side of the tongue A. From this arrangement it will be gathered that when the bar B is pulled forwardly there is no liability of the hook *g* becoming casually disconnected from the rod *b*, and yet when the bar B is relieved of forward pull, the draft bar F may be readily moved rearwardly and manipulated to disconnect the hook *g* from rod *b*. I would have it understood in this connection that notwithstanding the illustration of the hook *g* against one side of the tongue A, it is not essential for the said hook to be so arranged relative to the tongue. A link H is arranged on and pivoted at *h* to the tongue A, and a removable and headed pin I extends through the forward portion of the said link and is dropped in an aperture *i* in the tongue, and is provided at its lower end, when deemed necessary, with a nut *j* shown in Fig. 2. The said pin I serves to detachably connect the upper and lower members *k* and *l* of the draft bar G with the tongue A, and by ref-

erence to Figs. 2 and 5 it will be observed that the said members *k* and *l* are pivotally connected together at *m*, and that each member is provided in the inner edge of its forward arm with a notch *n*. When the parts are in the positions shown in Figs. 1, 2 and 3, it will be observed that the said notches *n* register and receive the right hand pin *d*, with the result that the draft bar *G* is strongly and safely connected with the main bar *B*. When, however, the pin *I* is removed from the members *k* and *l*, and the tongue *A* and the members *k* and *l* are swung into the positions shown in Fig. 5, relative to each other, it will be manifest that the notches *n* are separated, and hence the draft bar *G* may be readily disconnected from the main bar *B* to better adapt the latter for use in combination with a plow or the like. At this point it is well to state that the pin *f* is removable, and that therefore when the appliance is to be used on a plow or the like, the long draft bar *F* may also be readily disconnected from the main bar *B*.

In the use of the draft equalizer constructed as described and connected in the manner set forth with a tongue such as *A*, it will be observed that the load is pulled at two points, one of the said points being the connection between the main bar *B* and the draft bar *G*, and the other point being the connection between the draft bar *F* and the main bar *B*. It will also be observed that the hook *g* of the draft bar *F* engages the bolt or pin *b* at the opposite side of the tongue *A*, with reference to the point at which the draft bar is connected to the main bar *B*. It will be further observed that my improvements render it feasible to arrange the main bar *B* considerably forward of the point at which the ordinary doubletree is attached to the tongue, this being advantageous because the directness of the draft on the load is increased in proportion as the bar *B* is moved forwardly.

It will be noted that in the operation of my improvements as shown in Fig. 1 the load is drawn from two points; also, that the link *G* is adapted to swing about the pin *I* as a pivot, and that the bar *B* is adapted to swing in a horizontal plane in a direction indicated by a rearward movement of the hook *g* on the cross-rod *b*.

As before stated, the construction herein

illustrated and described constitutes the best practical embodiment of my invention of which I am aware, but it is obvious that in the future practice of the invention various changes in the form, construction and relative arrangement of parts may be made within the spirit of my invention as defined in my claims appended.

Having described my invention, what I claim and desire to secure by Letters-Patent, is:

1. A draft appliance comprising a main bar, levers carried on the end portions thereof, a draft bar pivotally connected with the main bar and provided with a hook, a pin carried by the main bar and arranged adjacent one end thereof, and a second draft bar made up of members pivotally connected together and adapted to be detachably connected with a tongue and having notches in the inner edges of their forward arms, which notches when registered receive the said pin of the main bar and hold the said draft bar to the main bar.

2. The combination in a draft appliance, of a main bar, a pin carried thereby, and a draft bar comprising pivotally connected members having rear arms adapted to be detachably connected with a tongue or other device and also having notches in the inner edges of their forward arms; said notches when registered and retained in such position by the connection of the members to a tongue or other device, being adapted to receive the pin of the main bar and prevent disconnection of the draft bar therefrom.

3. The combination in a draft appliance, of a main bar equipped with a pin, and a draft bar comprising members pivoted together and adapted to swing one with respect to the other; the said members being adapted to be detachably connected to a tongue or the like, and being provided with means whereby they are held to the pin during the said connection and may be swung one on the other and disengaged from the pin when detached from the tongue or other device.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

FRANKLIN M. SMILEY.

Witnesses:

L. BURR WHIPPY,
RAY DEARL.