

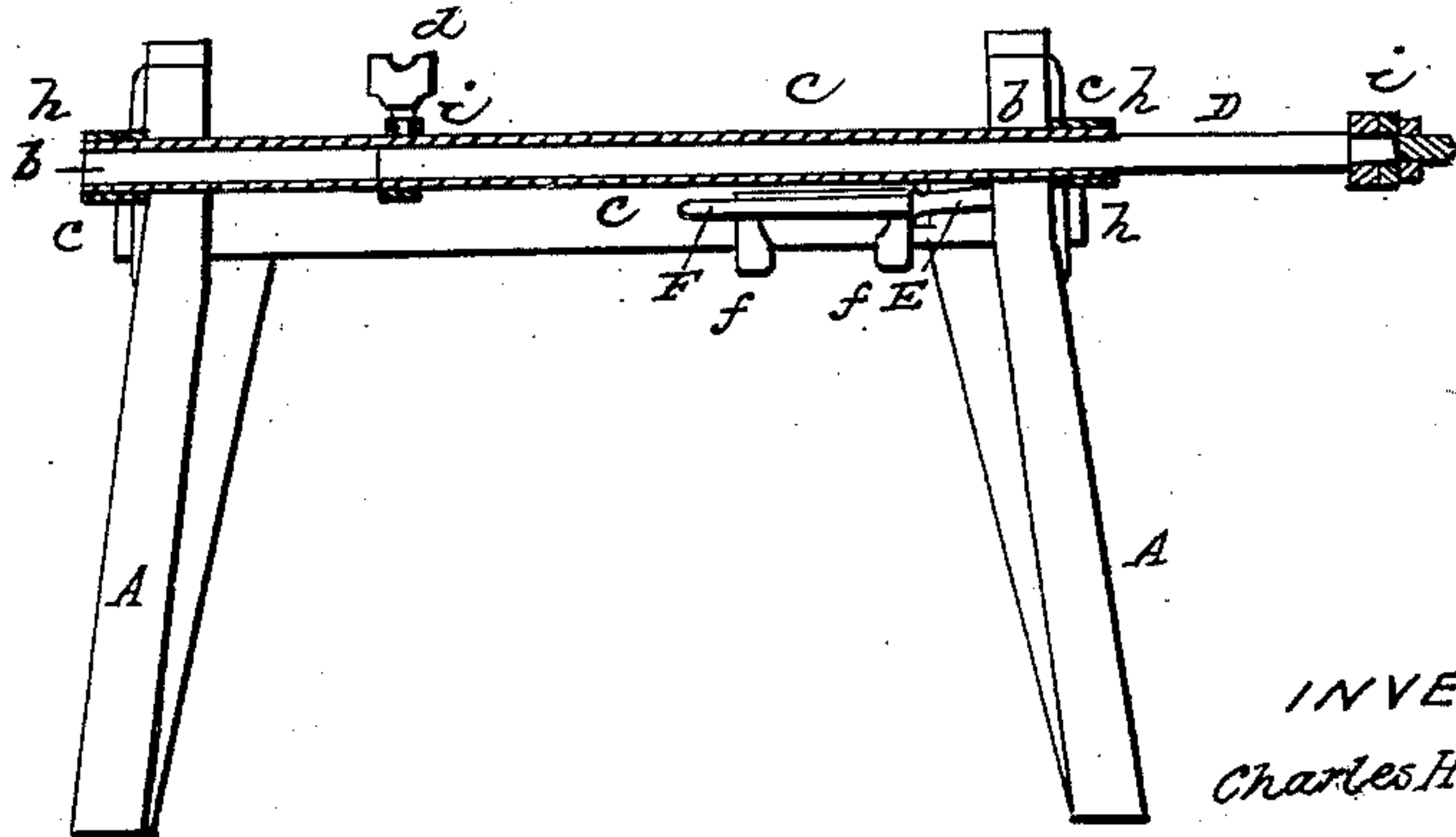
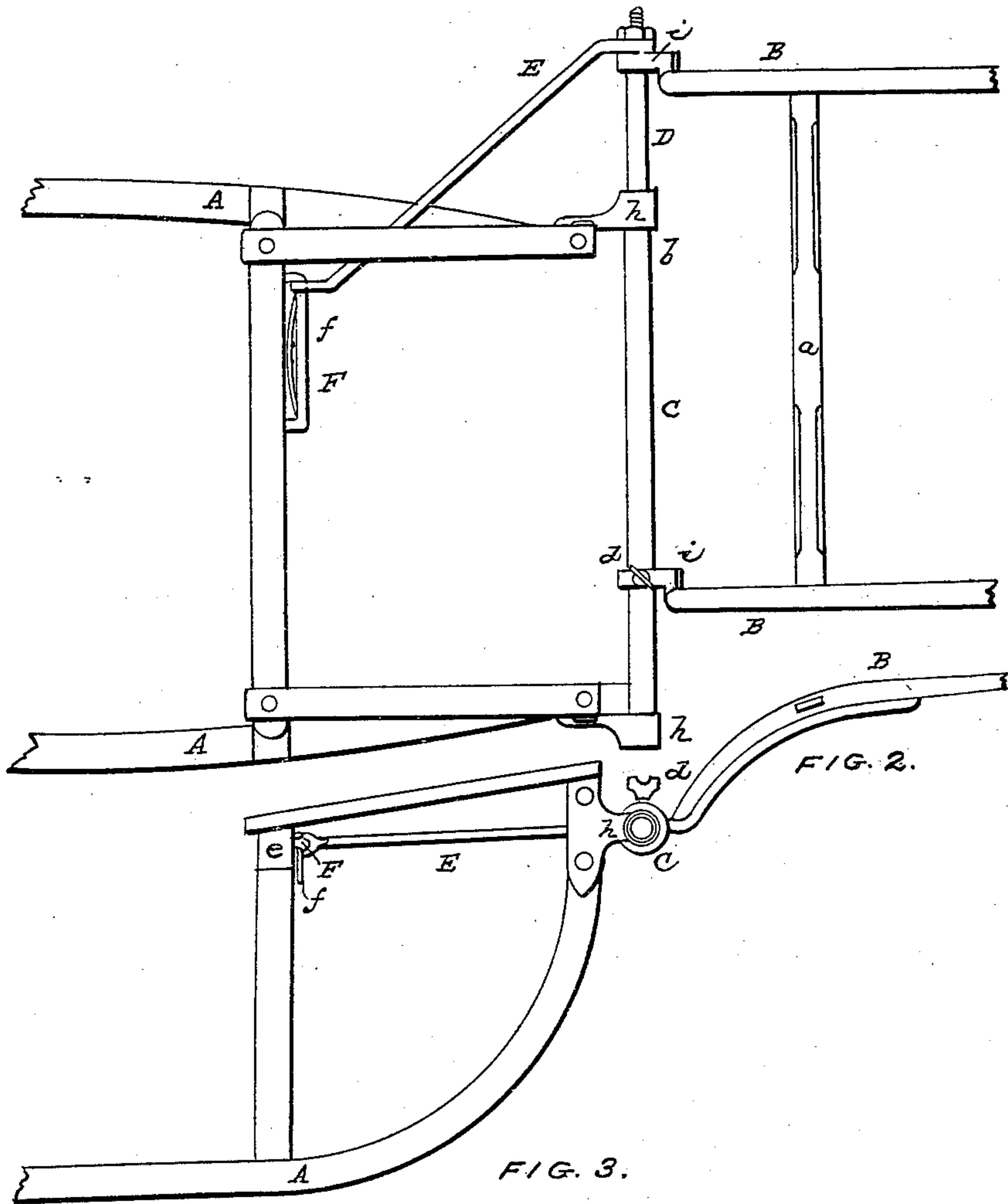
C. H. BUTTERFIELD.

Shaft for Sleighs.

No. 86,131.

Patented Jan'y 26, 1869.

FIG. 1.



WITNESSES:

S. H. Piper
L. N. Miller

INVENTOR:

Charles H. Butterfield

by his attorney

R. H. Eddy.

United States Patent Office.

CHARLES H. BUTTERFIELD, OF WESTBOROUGH, MASSACHUSETTS.

Letters Patent No. 86,131, dated January 26, 1869.

IMPROVEMENT IN SHAFTS FOR SLEIGES.

The Schedule referred to in these Letters Patent and making part of the same.

To all persons to whom these presents may come:

Be it known that I, CHARLES H. BUTTERFIELD, of Westborough, in the county of Worcester, and State of Massachusetts, have invented a new and useful Improvement in Sleigh-Runners and Shaft-Connections; and I do hereby the same to be fully described in the following specification, and represented in the accompanying drawings, of which—

Figure 1 is a top view, and

Figure 2, a side elevation of a pair of shafts or thills, and a set of sleigh-runners, with my invention applied to them.

Figure 3 is a section, taken in line of the axis of the tubular connection-shaft.

The purpose of my improved means of connecting the runners and the shafts or thills, is to enable the latter to be moved laterally, with respect to the former, in order that a horse, when tackled in the thills, may travel in the track which one of a pair of draught-animals, harnessed or yoked to a sled, usually makes in travelling, when they are arranged side by side, and with the sled-tongue extending between them.

The object of my improvement is hereinafter stated.

In the drawings—

A A denote the pair of sleigh-runners, and B B, the thills, the said thills being connected in the usual manner by a cross-bar, *a*.

Two tubular bearings, *h h*, project from the noses of the two runners.

A tubular shaft, C, goes through these bearings, and has male screws, *b b*, formed on it, to screw into corresponding female screws, *c c*, made in the bearings.

There is inserted into the shaft C, at one end thereof, a cylindrical rod, D, which slides freely in the shaft, and is projected from and goes through one of the collars *i i* of the thills. The collar *i* slides and turns freely on the shaft C, and has a clamp-screw, *d*, which is screwed into such collar and against the outer surface of the shaft C. The purpose of this clamp-screw is to so fasten the thills to the shaft C as to cause it to turn with them, while they are moved up or down by a horse while travelling.

The screws of the shaft C admit it to turn, and steady it, so as to prevent it from rattling in its bearings.

There extends, obliquely, from the slide-shaft or rod D, a brace, E, through whose rear part a long rod or staple, F, extends, such rod or staple being arranged and fixed to the cross-bar *e* of the runners.

The brace slides on the staple or rod, while the thills may be in the act of being moved laterally, and such brace and staple, after the thills may have been so moved aside, are to give support to them under the draught of the horse.

A spring-latch, *f*, arranged as represented, and fastened, at its middle, to the bar *e*, and within the shaft, is employed to hold the thills in either of their extreme positions.

From the above it will be seen that with the mechanism hereinbefore described, the thills may be arranged so as to bring a horse, when between them, in alignment with the middle line of the vehicle, or they may be moved laterally, so as to bring him on one side of such line.

The brace and the staple, with the latch, when combined with the remainder of the shaft-connection, such remainder of itself not being claimed as new by me, admit of the rod D being moved longitudinally in the hollow shaft C, and afford support to such rod, so as to prevent draught on the thills from bending the rod when it is in the position as shown in the drawings.

I claim the brace E, and its supporting-rod or staple F, in combination with the thills and their runner-connection, as described, such runner-connection consisting of the tubular rocker-shaft C, the slider D, the collars *i i*, and the clamp-screw *d*, as set forth.

I also claim the combination of the latch *f*, or its equivalent, with the brace, and the rod or staple combined with the thills and their runner-connection, as set forth.

C. H. BUTTERFIELD.

Witnesses:

R. H. EDDY,
F. P. HALE, Jr.