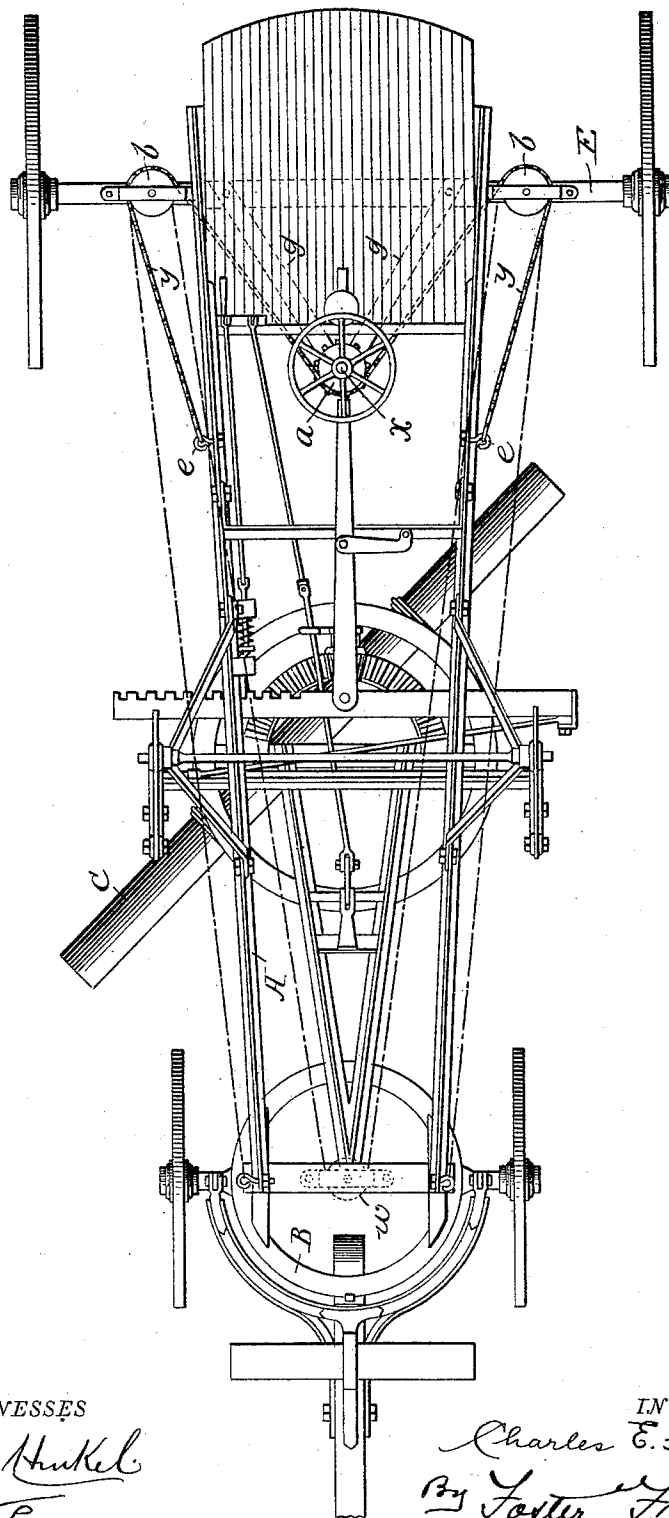


(No Model.)

C. E. FOSTER.
ROAD SCRAPER.

No. 460,126.

Patented Sept. 29, 1891.



WITNESSES

Prof. G. Hunkel.
A. E. J. Farnsmann.

INVENTOR

Charles E. Foster,
By Foster Freeman
Attorneys.

UNITED STATES PATENT OFFICE.

CHARLES E. FOSTER, OF WASHINGTON, DISTRICT OF COLUMBIA, ASSIGNOR
TO FREDERICK C. AUSTIN, OF CHICAGO, ILLINOIS.

ROAD-SCRAPER.

SPECIFICATION forming part of Letters Patent No. 460,126, dated September 29, 1891.

Application filed January 27, 1891. Serial No. 379,322. (No model.)

To all whom it may concern:

Be it known that I, CHARLES E. FOSTER, a citizen of the United States, residing at Washington, in the District of Columbia, have invented certain new and useful Improvements in Road-Scrapers, of which the following is a specification.

My invention relates to that class of implements or machines in which means are employed for shifting one of the axles to different positions, and more especially to road-scrapers in which the position of the axle serves as a means of compensating for the side draft of the scraper-blade.

My invention consists in the combination, with the body and the movable axle, of a chain or cable connected with or bearing upon the axle at opposite sides of its center, and means for drawing upon the said cable to swing the axle, as fully set forth hereinafter, and as illustrated in the accompanying drawing, which is a plan view of a road-scraper embodying my invention.

The body-frame A of the machine is of any suitable construction, and the forward end thereof may be pivotally supported upon the front axle in any suitable manner—as, for instance, by means of a fifth weight-wheel B in the usual manner.

The scraper-blade C is supported by the body about midway between the ends, and is connected therewith in such manner that it may be raised and lowered at either or both ends, shifted longitudinally, and swung horizontally about a central pivot to vary its angle to the line of draft or progression. The special appliances for these adjustments need not be set forth, as they constitute no part of my invention and may be similar to any of those in use.

The rear axle E is pivotally or otherwise secured to the body, so as to swing upon or about the pivotal point, to assume different angles to the line of draft, and preferably, also, to carry one wheel toward and the other away from the body, according to the direction of the swing, whereby to swing the axle oblique to the line of the body-frame to any desired angle. To permit the swinging of the axle to carry the wheels to and from the frame, the said rear axle is preferably made longer than

the front axle, so that the rear wheels have a greater spread than the front ones, with advantages in connection with the shifting of the scraper-blade to one side or the other and at different angles, which are too well known to need to be described.

In the construction shown in the drawing the rear axle swings about a point *x*, situated at a distance from the axle and toward which converge the hounds *g g*, and to a shaft in line with the pivot or constituting the same is connected a sprocket-wheel *a*, around which passes a sprocket-chain *y*. Pulleys *b b* are pivoted to the axle, one at each side of the center, and each end of the chain *y* passes around one of the pulleys and thence forward to an eyebolt *e* or other device, by which the extreme end of the chain is secured, forming a fixed attachment. The revolution of the pinion *a* serves to create a draft upon the chain or other cable at one side and to relax it at the other, thereby drawing upon the axle at one side or the other of the pivot-point and carrying it to its desired position. It will be evident that by the use of a small pinion *a* such a leverage may be exerted that the axle may be swung with the application of a comparatively slight force. Instead of a sprocket-wheel or pinion *a*, a drum may be used when a cable is employed, the said cable passing one or more times around the drum to secure sufficient adhesion.

It will be evident that by the use of a chain or cable and operating-wheel *a*, as above described, I avoid the expense and nice fitting required when the axle is shifted by means of racks and pinions or toggles and screws, and that whatever may be the wear or deterioration of the machine this will not affect the operation of the axle-shifting appliances or impair their adjustment. An advantage of this means of operation is the possibility of putting the operating-wheel *a* at almost any part of the machine without detracting from the efficiency of the device. Thus it may be put in the forward position *w*, (shown in dotted lines,) so as to operate from the front of the machine.

Without limiting myself to the precise construction and arrangement of parts shown and described, I claim—

1. The combination, with the main frame A and movable axle, of an operating-wheel *a*, mounted upon the frame, a chain or cable secured at its ends to the frame and passing
5 around said operating-wheel, and pulleys carried by the axle, around which the chain or cable passes, substantially as set forth.
2. The combination, with the main frame, of an axle pivotally connected with the body
10 at a point distant therefrom, whereby when the axle is turned one wheel moves toward and the other away from the main frame, a cable connected with the axle near its ends, and means for drawing upon the cable to
15 swing the axle, substantially as set forth.
3. The combination, with the body, of an axle supported to swing about a pivot arranged at a distance from the axle, whereby when the axle is swung one wheel moves toward and the other from the frame, a cable
20 connected at its ends to the frame, pulleys upon the axle, around which the cable passes, and means for drawing upon the cable at one side or the other to swing the axle, substantially as set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

CHARLES E. FOSTER.

Witnesses:

I. A. FAIRGRIEVE,
A. E. T. HANSMANN.