

(No Model.)

T. McCOSH.  
Road Scraper.

No. 240,834.

Patented May 3, 1881.

Fig 1.

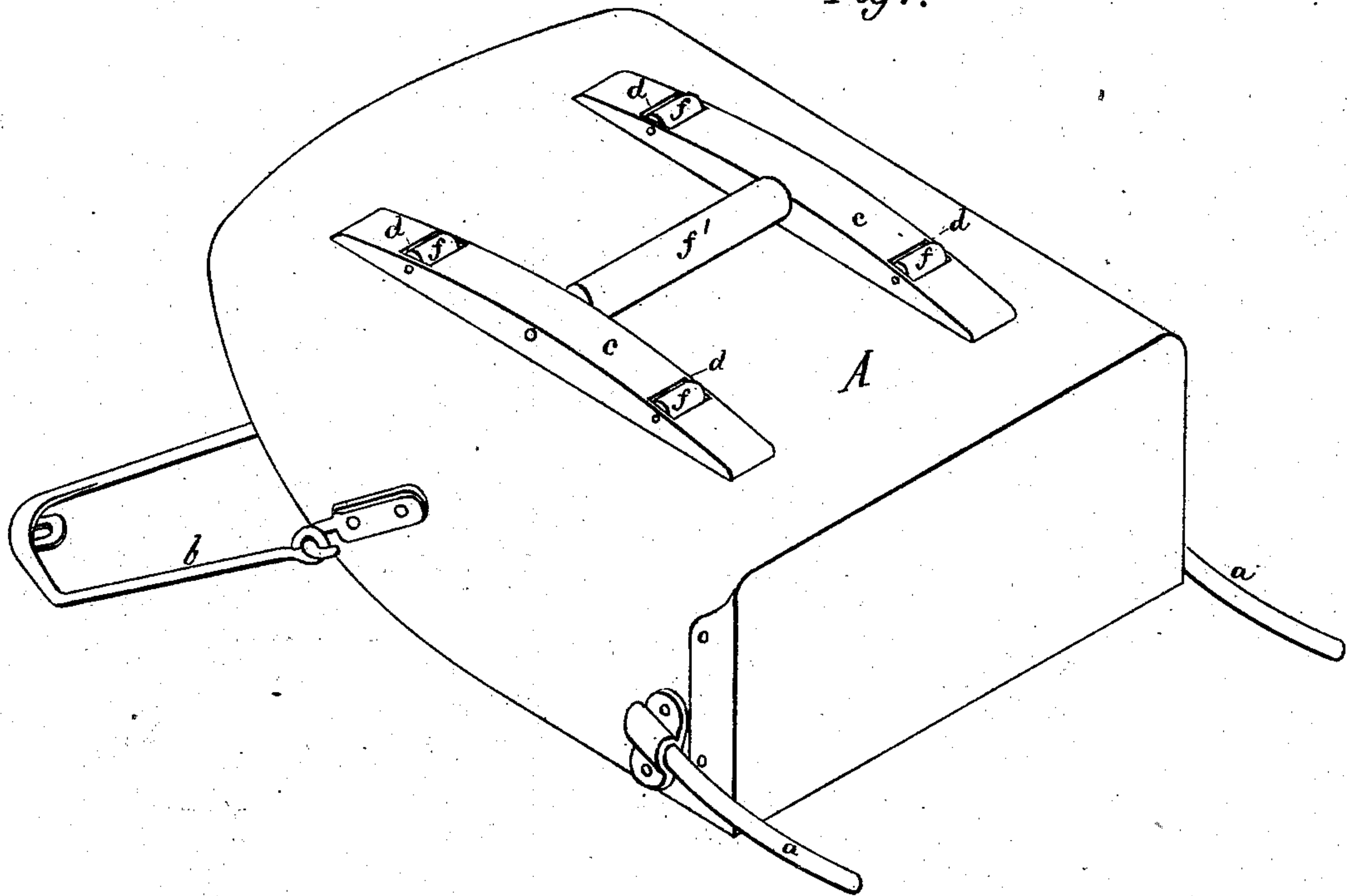
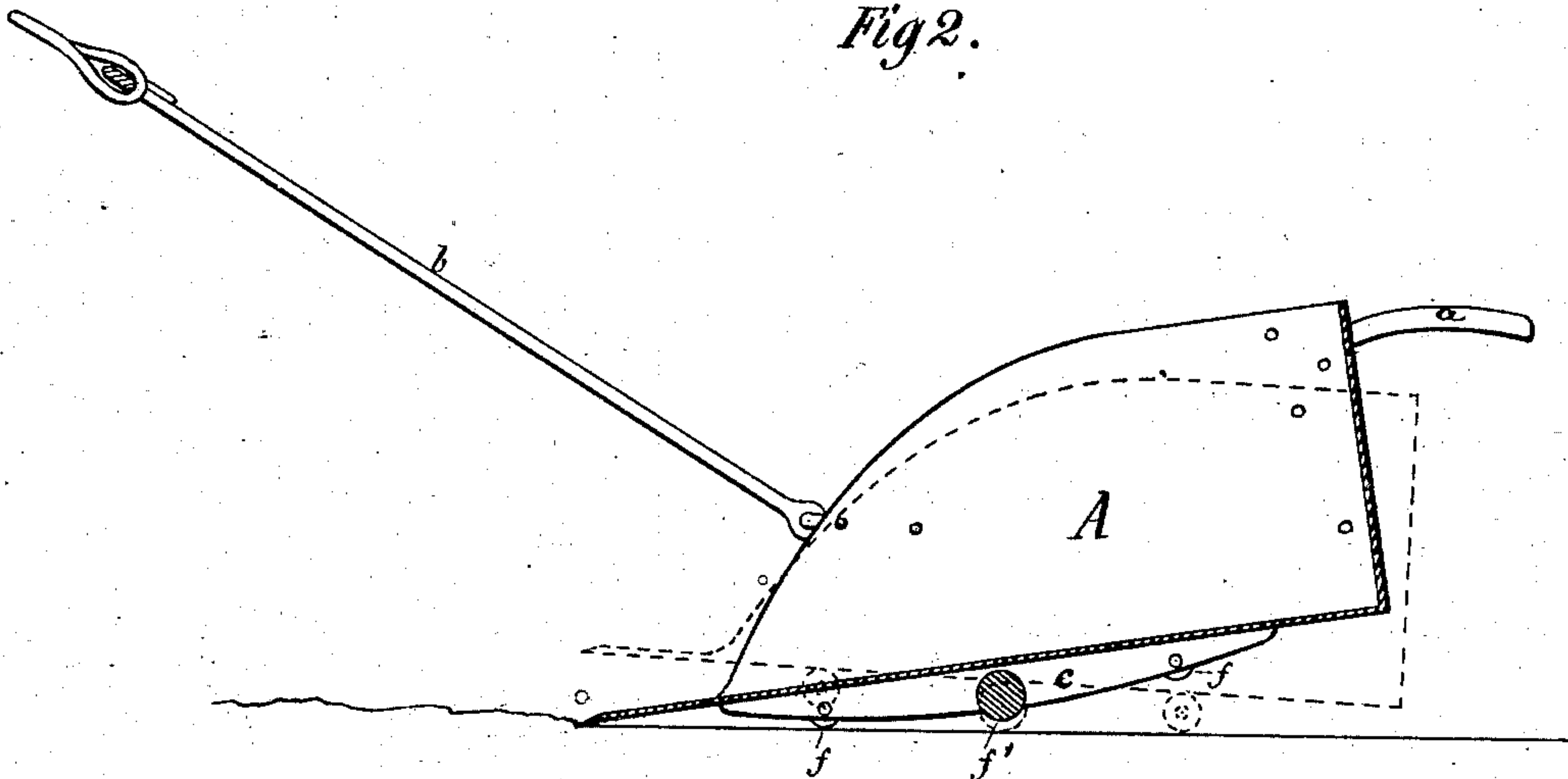


Fig 2.



Witnesses:

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# UNITED STATES PATENT OFFICE.

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## ROAD-SCRAPER.

SPECIFICATION forming part of Letters Patent No. 240,834, dated May 3, 1881.

Application filed February 17, 1881. (No model.)

*To all whom it may concern:*

Be it known that I, THOMPSON McCOSH, a citizen of the United States, residing at Burlington, in the county of Des Moines and State of Iowa, have invented a new and useful Improvement in Road-Scrapers, of which the following is a specification.

The object of my invention is to avoid much of the frictional resistance of the earth to the bottom of the scraper while the scraper is being moved with its load to the place of deposit, and also while being returned for another load; and another object is to avoid a binding or sticking contact between the earth at the point where the scraper is filled and the bottom of the scraper, in the event that the bottom of the scraper is adjusted during the filling operation to a plane so nearly horizontal that the scraper-bottom would bear upon the earth if not provided with my improvement.

The nature of my invention consists in providing a rolling surface or surfaces upon the bottom of the scraper, substantially as hereinafter described and claimed, such surface or surfaces being applied so as to project a suitable distance beyond the bottom of the scraper, and thereby serve for keeping the bottom proper of the scraper from coming in contact with the earth while the scraper is adjusted to a horizontal, or nearly horizontal, position, while they permit the front edge of the scraper to touch the earth when the scraper is adjusted from a transporting position to a filling position.

Figure 1 in the accompanying drawings represents, in perspective, my improved scraper as viewed from its bottom or under side; and Fig. 2 is a vertical longitudinal section of the scraper as adjusted to a filling position, the dotted lines in this view illustrating the scraper adjusted to a transporting position.

The scraper A may be of any approved construction, and have the usual handles, *a*, and bail *b*, as shown. The scraper, as shown, is made of sheet-steel, and upon its bottom two reversely-inclined runner-shaped bars, *c*, are firmly fastened, they being set a proper distance apart, and so located that the scraper-bowl is about balanced at the middle of the

length of the bars. These bars may be of wood or metal, but metal is preferable. Within the body of each bar vertical mortises *d* are formed, and in these mortises rollers *f* are placed and confined by their journals and suitable boxes formed in the bars. The boxes of the rollers may have removable cap-pieces, or they may be simple holes bored transversely through the bars. If the latter-mentioned mode of forming the boxes or bearings for the rollers is adopted, the pins forming the journals of the rollers will be inserted sidewise through the bars and rollers and riveted at their ends upon the bars. The rollers *f* have a slight projection beyond the bottom surface of the bars, and this projecting portion bears upon the earth and holds the bars and scraper in relief therefrom. One roller may be located at the middle of the length of each bar and one near the respective tapering ends thereof, and by this means the scraper will rest upon an anti-friction roller-surface both in its forward tilted and backward tilted positions, as well as when in a horizontal position, and it, thus resting, can be manipulated with great ease, and when moved forward will offer far less frictional resistance to the earth, inasmuch as the rollers turn freely and roll easily over the earth.

Between the bars *c* a longer roller, *f'*, may be applied, as shown. This roller occupies a position about midway of the length of the bars *c*, and its journals are boxed in the bars in any proper manner. By means of this long roller and the short rollers the scraper will be supported across nearly its whole width when horizontal or in a slightly inclined position.

In carrying out my invention it may be found desirable to provide several long rollers between the bars *f*, and in some cases the rollers shown applied in the bars may be dispensed with; or, instead of dispensing with the rollers in the bars, those between the bars might be dispensed with. The preferable construction is to provide the long and short rollers, as shown in the drawings.

Instead of using rollers, balls might be properly applied in the bars *f*, so as to revolve without binding in their bearings.

By my invention scrapers are rendered ca-

pable of removing earth with greater facility, they working with lighter draft upon the team, and thereby enabling animals to draw greater loads, and largely increasing the amount of  
5 work that may be done in a given time and with a given expenditure of power.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The scraper having a roller, *f'*, and bars *c*  
10 on the under side of its bowl, substantially as and for the purpose described.

2. A scraper having a bar, *c*, and roller *f* set in the bar, said bar and roller being on the under side of the bowl of the scraper, substantially as and for the purpose described. 15

3. A scraper having the bars *c* and rollers *f* and *f'* applied to the under side of its bowl, substantially as and for the purpose described.

THOMPSON McCOSH.

Witnesses:

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