

(No Model.)

2 Sheets—Sheet 1.

J. CLEMENT.

CARRIER BELT FOR DITCHING MACHINES.

No. 265,385.

Patented Oct. 3, 1882.

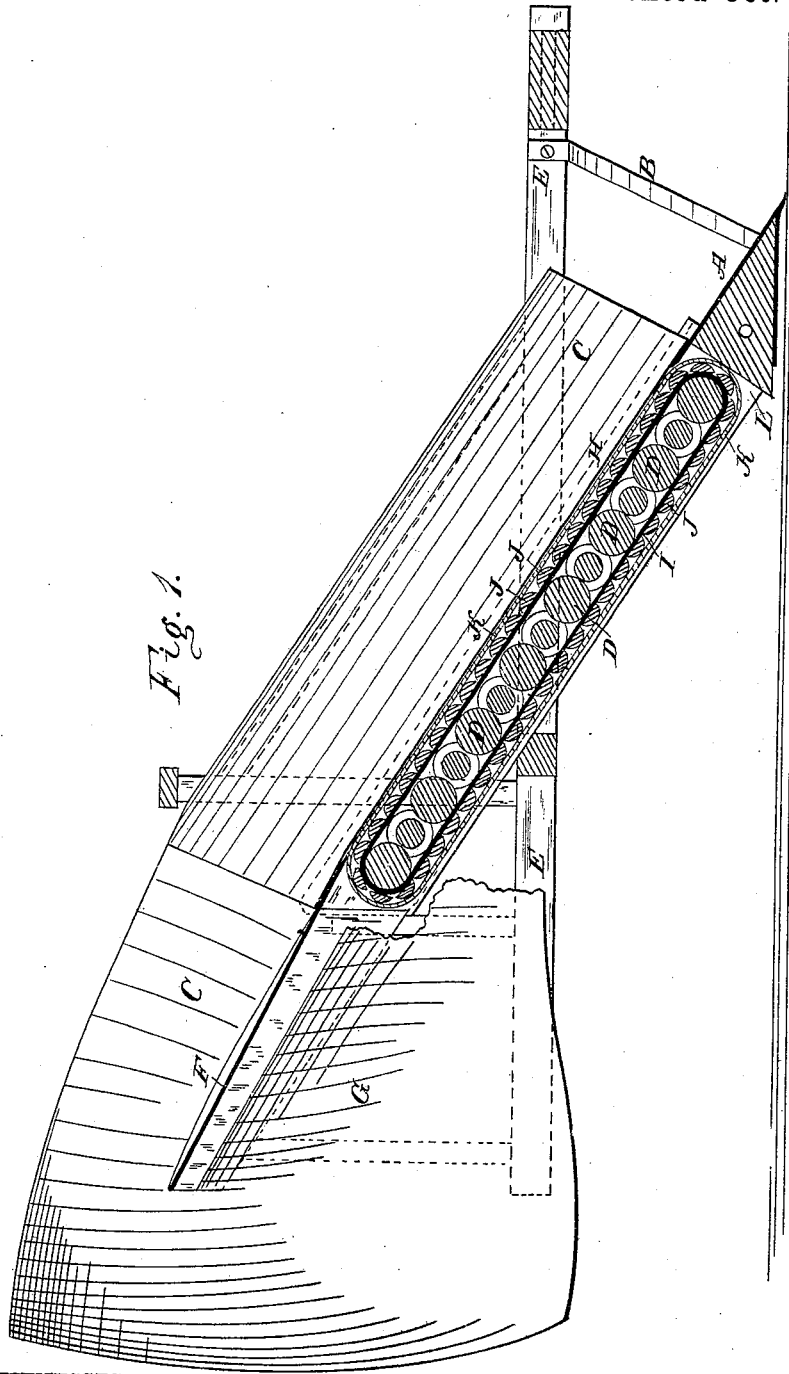


Fig. 1.

WITNESSES:

*Chas Beyer*  
*W. Sedgwick*

INVENTOR:

*J. Clement*  
BY *Munn & Co*  
ATTORNEYS.

(No Model.)

2 Sheets—Sheet 2.

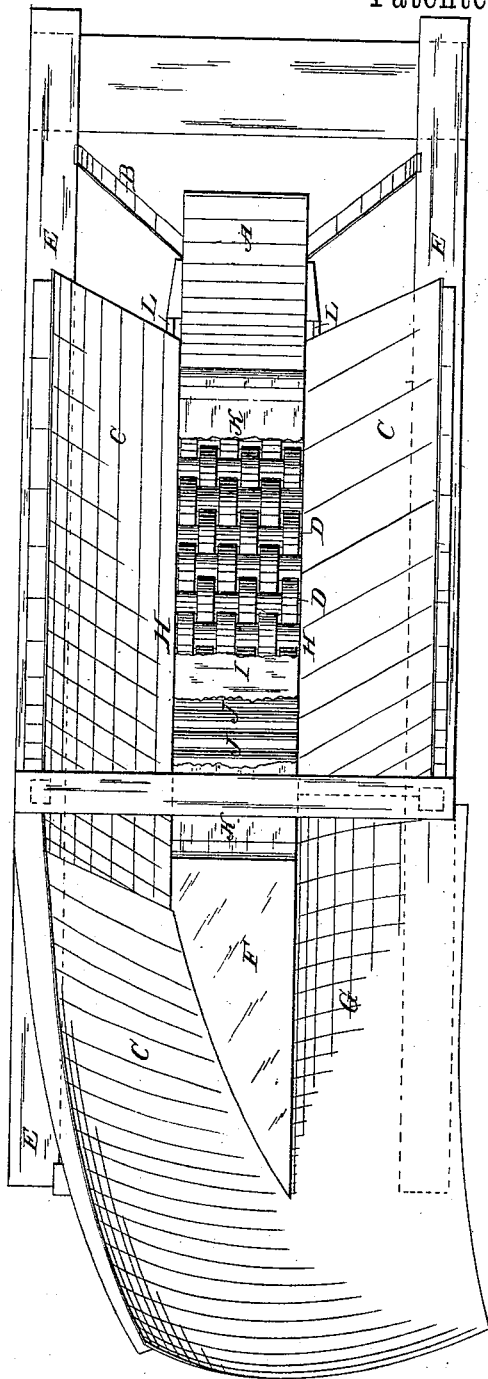
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*Fig. 2.*



WITNESSES:

*Chas. O. Beyer*  
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INVENTOR:

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# UNITED STATES PATENT OFFICE.

JAMES CLEMENT, OF GRAND FORKS, DAKOTA TERRITORY.

## CARRIER-BELT FOR DITCHING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 265,385, dated October 3, 1882.

Application filed May 10, 1882. (No model.)

*To all whom it may concern:*

Be it known that I, JAMES CLEMENT, of Grand Forks, in the county of Grand Forks and Territory of Dakota, have invented a new and Improved Ditcher, of which the following is a full, clear, and exact description.

This invention consists of an improved construction of elevators or carriers for raising the earth from the plow by which it is dug in the ditch up to the chute, by which it is discharged upon the bank at the side of the ditch, the object being to contrive an endless carrier that will not be clogged by the earth, but will keep free and run easily. The said improved construction consists of intermeshing rollers forming a continuous rolling bed with an endless belt or belts of leather or rubber belting, on which cross-slats are placed close together, side by side, and over said slats is a strong canvas belt of close texture, which runs at the edges under guards of the sides of the chute, so as to prevent the earth from escaping over the edges upon the rollers, while the texture prevents it from falling through.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a longitudinal sectional elevation of a ditcher constructed according to my invention, and Fig. 2 is a plan view with a part of the belt broken out.

A represents the plow or scraper by which the earth is dug in the bottom of the ditch by drawing the scraper along.

B represents the cutters for sloping the banks, and C the sloping sides of the chute up which the earth is to be carried by the carrier of my improved construction, which forms the bottom of the chute. I make a continuous bed of intermeshing rollers D to support the carrying-belt uniformly and in close proximity of the points of support to each other, the said rollers being mounted in the sides L of the frame to which the sides C of the chutes are attached, and which is mounted on the horizontal frame E in the inclined position shown in Fig. 1, up which the earth is to be carried to the table F, over which the earth is shoved

by the pressure of that on the carrier below to fall on the lateral chute G, to be delivered upon the earth at one side of and a short distance from the ditch. These rollers extend under the lower edges, H, of the sides C of the chute, and over them is an endless belt, I, of rubber or leather, either in one single breadth extending wholly across the bottom of the chute or in two breadths extending wholly or partly across said chute, on which belt or belts flat-bottomed and oval-topped slats J are placed side by side and attached to carry the canvas cover K, which forms the part of the carrier on which the earth is carried, so that it cannot fall through to the rollers below, nor can it escape under edges H of the chutes which bear closely on the carriers, besides overlapping it so as to effectually guard the ends of the rollers and prevent them from clogging. Together with the carrier constructed in this form and arranged to prevent clogging, and thereby enabling it to run easy, I propose to line the chute-sides C, also table F and chute G, with smooth sheet metal, along which the earth may be crowded by the pressure of the solid earth into which the plow is drawn more easily than it can be on the ordinary board sides of the chutes.

It is believed that ditches constructed as herein shown and described, will work in comparatively dry earth without requiring the use of water to soften the earth and lessen the friction, as is required with others of like character.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. The combination, in a carrier for ditching-machines, of the carrying-rollers D, leather or rubber belt I, slats J, and canvas cover K, substantially as described.

2. The combination, in a carrier for ditching-machines, of the intermeshing carrying-rollers D, leather or rubber belt I, slats J, and canvas cover K, substantially as and for the purpose set forth.

JAMES CLEMENT.

Witnesses:

RUSSEL W. CUTTS,  
R. B. HILL.