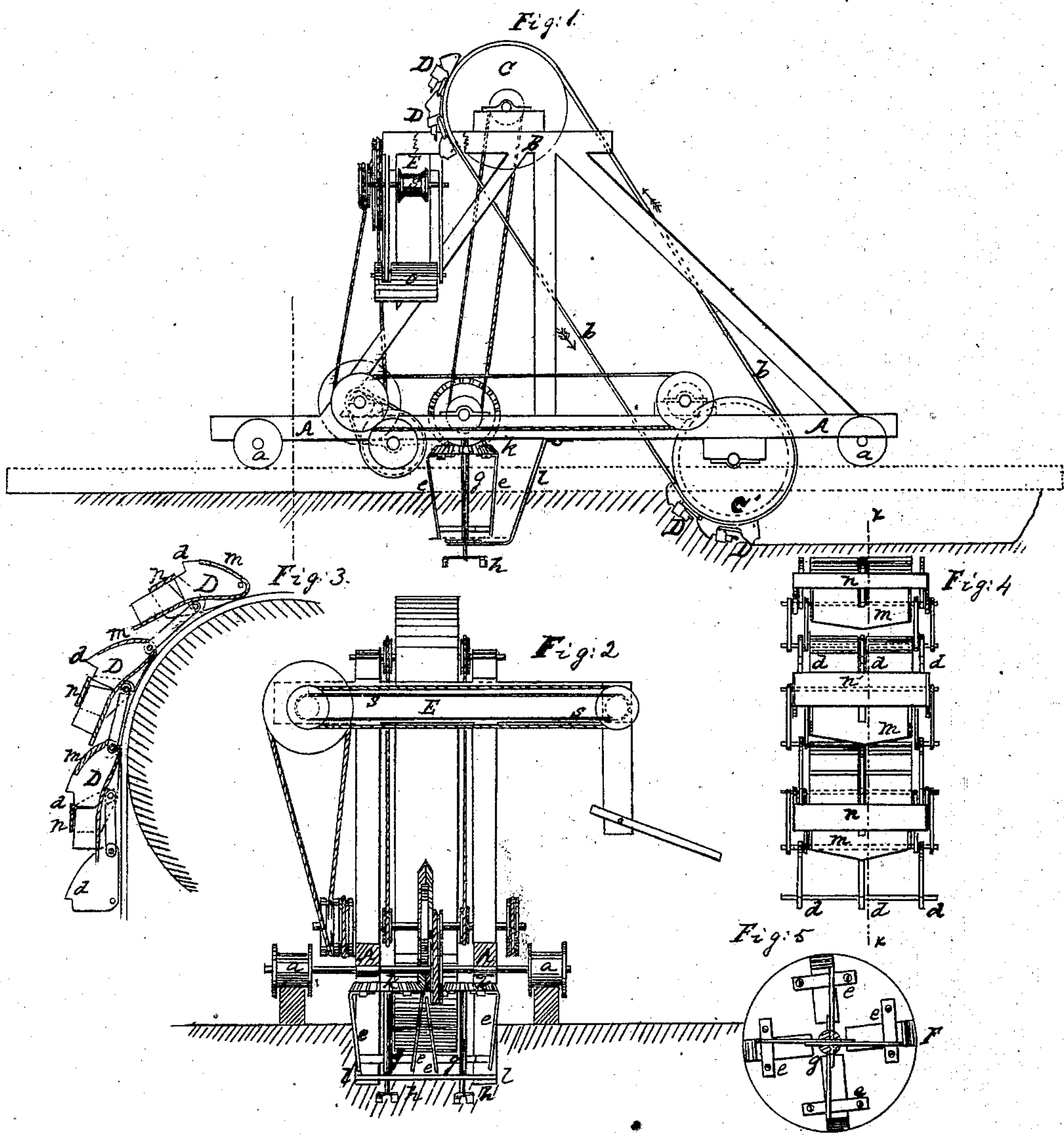


A. A. Fuselier.
Ditching-Machine.

N^o 74074

Patented Feb. 4, 1868.



Witnesses.

Jhes. Fische
N. Oren

Inventor.

A. A. Fuselier
Per Munnell
Attorneys.

United States Patent Office.

ALFRED A. FUSELIER, OF ALGIERS, LOUISIANA.

Letters Patent No. 74,074, dated February 4, 1868.

IMPROVEMENT IN DITCHING-MACHINES.

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

TO ALL WHOM IT MAY CONCERN:

Be it known that I, A. A. FUSELIER, of Algiers, in the parish of Orleans, and State of Louisiana, have invented a new and useful Improvement in Ditching-Machine; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable those skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 represents a side elevation of my improved ditching-machine.

Figure 2 is an end view.

Figure 3 is a side sectional view of a set of excavating-buckets detached, taken in the line *x x*, fig. 4.

Figure 4 is a front view of the same.

Figure 5 is a detail or top view of one of the revolving side-excavators detached.

Similar letters of reference indicate corresponding parts.

This invention relates to an improved machine for excavating ditches or canals, and consists of a carriage, mounted on wheels, to be worked and propelled on temporary movable rails by a steam-engine, and supporting drums for carrying an endless belt or chain, to which are affixed excavating-buckets, scoops, or scrapers, of peculiar construction, which discharge the earth into a chute over the side to form an embankment, and are followed in their operation by revolving cutters for sloping the sides or banks of the ditch at any desired angle.

This apparatus may also be followed by a set of elevators to throw the earth cut by the revolving cutters out of the ditch.

A represents a long carriage, mounted on wheels *a a*, for running on rails, shown in red, which are to be placed temporarily in advance of the machine, that is also to be provided with a steam-engine to operate and propel it on the rails. A frame, B, is erected on the carriage, to support the machinery, consisting of two carrier-drums, C C', placed above and below, on which is placed an endless chain or belt, *b b*, having excavators D D made fast to it, to travel with the endless belt and cut the earth to any desired depth and width for making a ditch or canal, the whole being operated by suitable gearing, as represented. The drums C C' are placed in such position relatively that the endless chain shall raise the excavators D D at an angle of about forty-five degrees, and the excavators ascending full of earth on the front end of the machine pass over the upper drum C and discharge their contents into a trough or chute, E, projecting more or less, as desired, over the side of the machine, to make an embankment, and provided with an endless apron, S, running in the bottom of the chute, to convey the earth from under the discharging-excavators, so that it shall fall upon an adjustable oscillating board, *c*, all arranged to distribute the earth as far from the ditch, and form an embankment as wide as necessary. The excavators are formed of iron, with straight projecting steel-pointed knives, *d d*, in front of the scoops *m*, and a sharp cross-scraper, *n*, the parts being hinged to the endless chain or belt to give them flexibility in passing over the drums. Below the carriage A are placed one or more cutters, F, made fast to a horizontal gear-wheel, *k*, to give the cutters rotary motion. The cutters are formed of four straight-edge knives, *e*, set conically at any angle desired, to shave the banks or sides of the ditch at any required slope after the excavators have cut it. They may also be used for widening a ditch or canal. On the lower end of the shaft *g* of the gear-wheel *e* is affixed a rotary cutter, *h*, that is made to extend out far enough for removing the earth out of the way of the forward brace *l*, that bears the shaft *g*. A set of elevators may be attached to the rear end of the machine for removing the earth thrown into the ditch by the conical rotary cutters.

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

The excavators D, formed as described, in combination with the drums C C', the chute E, and the rotary cutter F, and the board *c*, all constructed, arranged, and operating as and for the purpose set forth.

ALFRED A. FUSELIER.

Witnesses:

PAUL T. ABODIE,

LOUIS A. DE TORNOS.