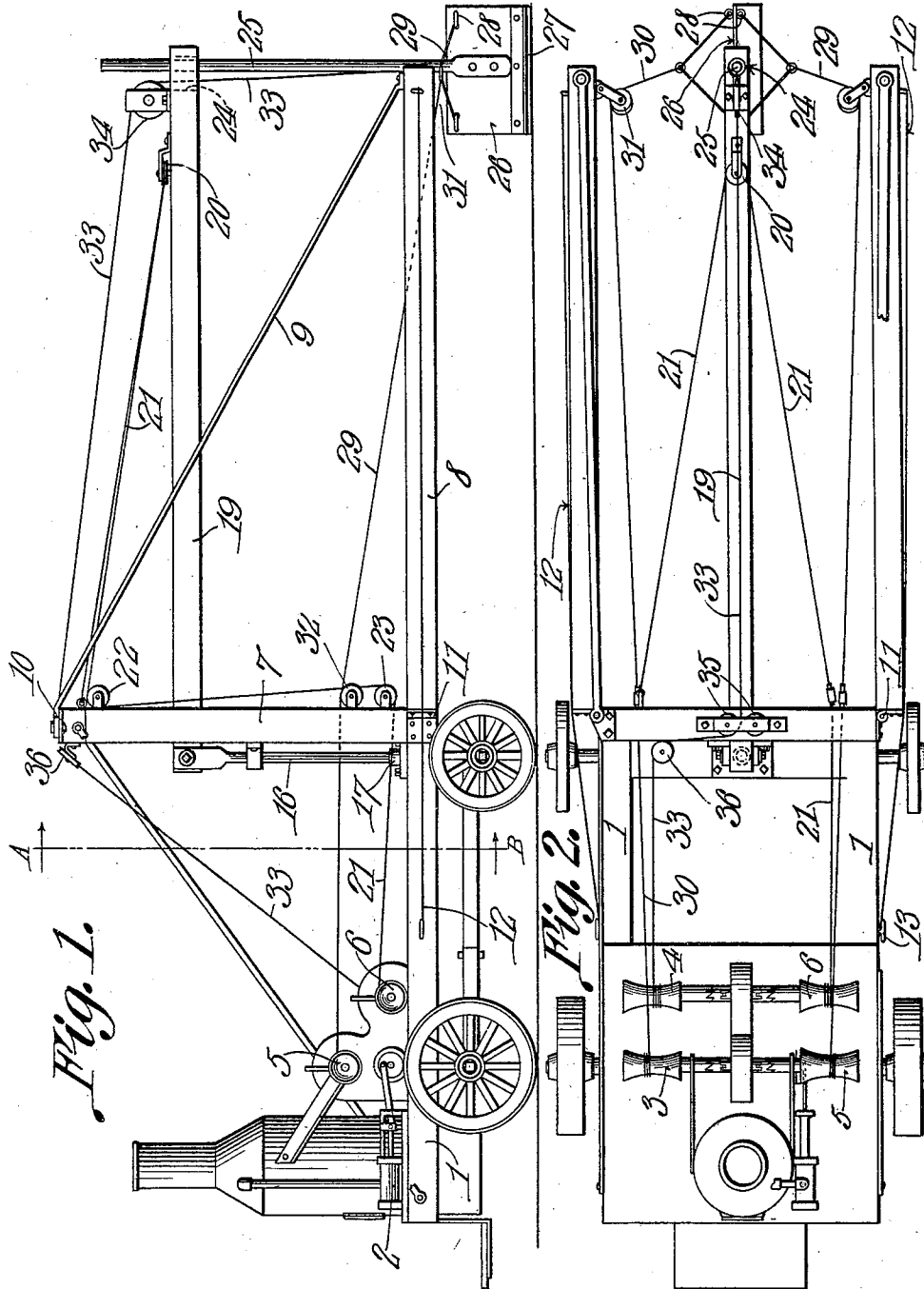


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C. A. KENNEY.
TRENCH FILLING MACHINE.
APPLICATION FILED APR. 15, 1910.

Patented May 16, 1911.

2 SHEETS—SHEET 1.



Witnesses

J. B. M. L. L.
Herbert Lawson

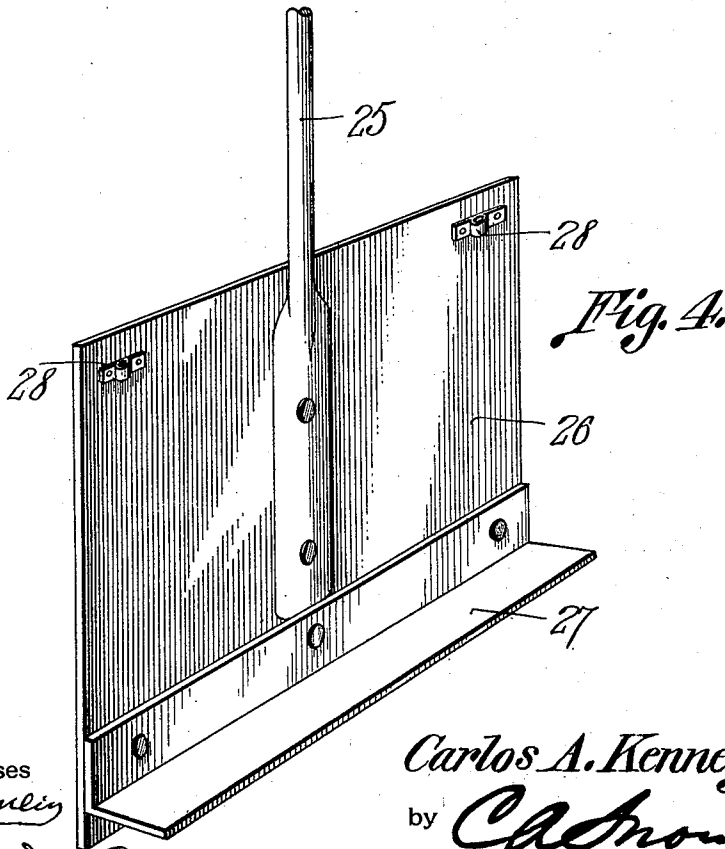
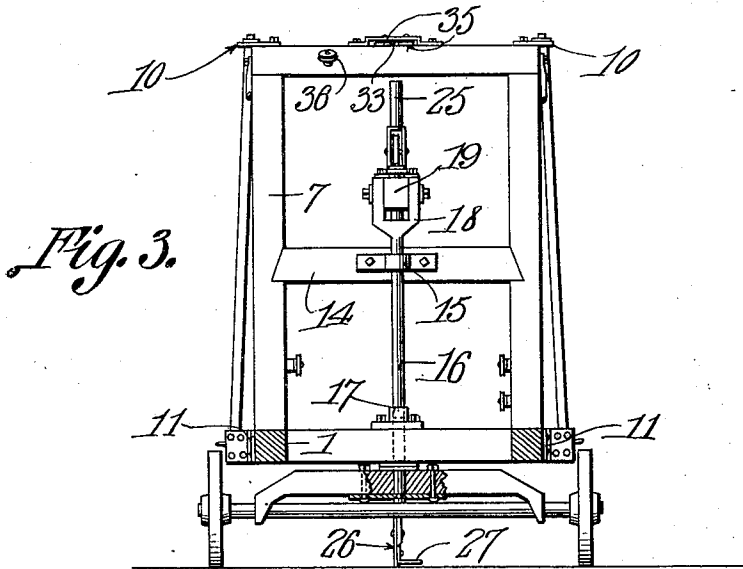
Carlos A. Kenney, Inventor
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Attorneys

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Witnesses
H. C. Melvin
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UNITED STATES PATENT OFFICE.

CARLOS A. KENNEY, OF HAMMOND, INDIANA.

TRENCH-FILLING MACHINE.

992,359.

Specification of Letters Patent.

Patented May 16, 1911.

Application filed April 15, 1910. Serial No. 555,692.

To all whom it may concern:

Be it known that I, CARLOS A. KENNEY, a citizen of the United States, residing at Hammond, in the county of Lake and State of Indiana, have invented a new and useful Trench-Filling Machine, of which the following is a specification.

This invention relates to machines for filling trenches and for tamping the loose dirt after it has been deposited within the trenches.

One of the objects of the invention is to provide a portable machine of this type which can be readily adjusted so as to shift the loose dirt any desired distance to the trench, the said machine including a scraper which is provided for the purpose of shifting the dirt.

Another object is to provide a combined scraper and tamper, means being provided whereby said tamper may be raised and dropped mechanically for the purpose of packing the dirt within the trench.

With these and other objects in view the invention consists of certain novel details of construction and combinations of parts hereinafter more fully described and pointed out in the claims.

In the accompanying drawings the preferred form of the invention has been shown.

In said drawings:—Figure 1 is a side elevation of a machine constructed in accordance with the present invention. Fig. 2 is a plan view thereof. Fig. 3 is a section on line A—B Fig. 1. Fig. 4 is an enlarged perspective view of the scraper.

Referring to the figures by characters of reference 1 designates a wheel supported body carrying the engine 2 and the other apparatus necessary for the mechanical operation of the mechanism and arranged upon this structure and adapted to be operated by the engine, are drums of any suitable form, these drums being indicated at 3, 4, 5 and 6. An upstanding frame 7 is mounted at one end of the body 1 and has side beams 8 hingedly connected to the base thereof and at the sides of the body 1, these beams being adapted to swing laterally and each of them having a brace 9 extending from its outer or free end and upwardly to arms 10 extending laterally from the upper end of the frame 7, the point of connection between each brace 9 and the arm 10 being in ver-

tical alinement with the pintle of the hinge 11 thereunder. Cables 12 are secured to the free end portions of the side beams 8 and are adapted to extend backward to the body portion 1 to which they may be secured in any suitable manner, as by tying them upon projections 13 formed upon the body. These cables 12 constitute means whereby the beams 8 can be swung laterally and then held against inward movement, it being obvious that after one of these beams has thus been shifted and the cable 12 has been tied or otherwise fastened to the body, the beam will be prevented from swinging back to its initial position.

The upstanding frame 7 has a cross beam 14 thereon and this beam carries a bearing 15 in which is mounted a standard 16. Said standard is mounted for rotation at its lower end within a bearing block 17 mounted on the body 1 and the upper end of the standard is forked as shown at 18 and has a central beam 19 pivoted therein. A sheave 20 is mounted on the beam 19 adjacent the free end thereof and is engaged by an adjusting cable 21 one end of which is secured to one side of the upstanding frame 7 adjacent the top of said frame while the other end portion of the cable extends over a sheave 22 supported by the opposite side of the frame 7 and then extends downwardly under a sheave 23 and back to the winding drum 6. Inasmuch as the cable 21 extends downwardly to the sheave 20, it will be apparent that when the said cable is wound upon the drum, it will pull upon the sheave 20 and thus swing the free end of the beam 19 upwardly.

An opening 24 is formed in the free end portion of the beam 19 and a guide rod 25 is loosely mounted therein, this rod extending upwardly from a scraping blade 26 preferably rectangular. A tamping flange 27 extends from one face of the blade at a point removed from the lower edge thereof. Eyes 28 or the like are secured to the faces of the blade adjacent the upper edge thereof and cables 29 and 30 are connected to these eyes. These cables extend partly around sheaves 31 secured to the respective side beams 8 near the free ends thereof and the cables then extend backward over guide sheaves 32 carried by the frame 7 and to the drums 5 and 3 respectively.

A cable 33 is attached to the upper portion of the blade 26 and close to the rod 25 and extends upwardly through the opening 24 and over a guide sheave 34 mounted on the beam 19 adjacent the opening 24. The said cable then extends between guide sheaves 35 mounted upon the top of the frame 7 and thence laterally and partly around an inclined sheave 36 carried by the frame.

From this sheave the cable extends downward to the drum 4.

When it is desired to fill a trench with dirt piled alongside thereof, the machine which has been described is placed in position across the trench and with the beam 19 extending longitudinally thereabove. The side beams 8 are adjusted laterally so as to give the desired lateral movement to the blade 26 and after this adjustment is effected the blade 26 is elevated by winding the cable 33 upon its drum 4. The blade is then shifted laterally by pulling on one or the other of the cables 29 and 30 and after it has assumed a position above the pile of dirt, the blade 26 is permitted to lower by gravity into engagement with the dirt and is then drawn in the opposite direction by one of the cables 29 and 30 so as to scrape the dirt into the trench. This operation is continued until all of the adjacent pile of dirt, or as much thereof as may be desired, has been scraped into the trench. At different times during the operation, the blade 26 may be held above the trench and elevated and then permitted to drop so as to cause the flange 27 to tamp the dirt within the trench.

It will of course be understood that the arms 8 are held rigid by the cables 12 after they have been adjusted laterally, it being designed, of course, to adjust these arms so as to give the scraper sufficient lateral movement to scrape the full width of the dirt pile. As the dirt is scraped into the trench the machine can be moved forward under its own power by means of any suitable mechanism provided for that purpose.

Various changes may be made in the construction and arrangement of the parts without departing from the spirit or sacrificing any of the advantages of this invention as defined in the appended claims.

What is claimed is:—

1. A machine of the class described including a portable structure, a scraping blade carried thereby, means for adjusting the blade vertically, adjustable side members and means connected to said members for shifting the blade laterally therebetween.

2. A filling machine including laterally adjustable side members, a scraping blade interposed therebetween, means for shifting said blade vertically, and means connected to the side members for shifting the blade laterally.

3. A filling machine including laterally

adjustable side members, means for holding said members against movement, a scraping element interposed between the members, means for shifting said element vertically, and separate means for shifting the element laterally toward either of the side members.

4. A filling machine including adjustable side members, means for holding them against movement toward each other, a scraping element interposed between the members, means for shifting said element vertically, separate means connected to the side members for shifting said element laterally toward either of said members, and a movable guide for said element.

5. A filling machine including laterally adjustable side members, means for holding them against movement toward each other, a guide beam mounted for vertical and lateral swinging movement, a scraping element movably connected to said beam and interposed between the side members, means for shifting said scraping element vertically, and separate means for shifting the element laterally toward either of the side members.

6. A filling machine including a guide beam mounted for vertical and lateral swinging movement, a scraping blade, a flange thereon, means carried by said beam for shifting said blade vertically toward the beam, said blade being movable downwardly by gravity and means for shifting the blade to scrape material transversely of the machine.

7. A machine of the class described including a beam mounted for vertical and lateral swinging movement, a scraping blade, a flange thereon, a guide member extending from the blade and slidable within the beam, means connected to said element and supported by the beam for elevating the blade, said blade being movable downwardly by gravity, and means for shifting the blade to scrape material transversely of the machine.

8. A filling machine including side members mounted for lateral swinging movement, means for holding said members against movement toward each other, a guide beam mounted for vertical and lateral swinging movement, a scraping element, means extending therefrom and guided by the beam for holding the said element against displacement relative to said beam, means for elevating the scraping element, and separate means connected to the side members for shifting said element laterally toward either of said members.

9. A machine of the class described including a portable structure, a scraping blade carried thereby and extending substantially parallel with the path of movement of the machine, members extending beyond the sides of said structure, said blade

being supported therebetween, and means
mounted on the side members for shifting
the blade transversely of the machine, said
blade being movable in a path the length
5 of which is greater than the width of the
structure.

In testimony that I claim the foregoing as

my own, I have hereto affixed my signature
in the presence of two witnesses.

CARLOS A. KENNEY.

Witnesses:

RODMAN B. WELLS,
SCHUYLER C. KENNEY.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents,
Washington, D. C."
