(No Model.)

J. C. SMITH & C. LARDNER.

SELF ACTING DUMPING APPARATUS.

No. 482,390. Patented Sept. 13, 1892.

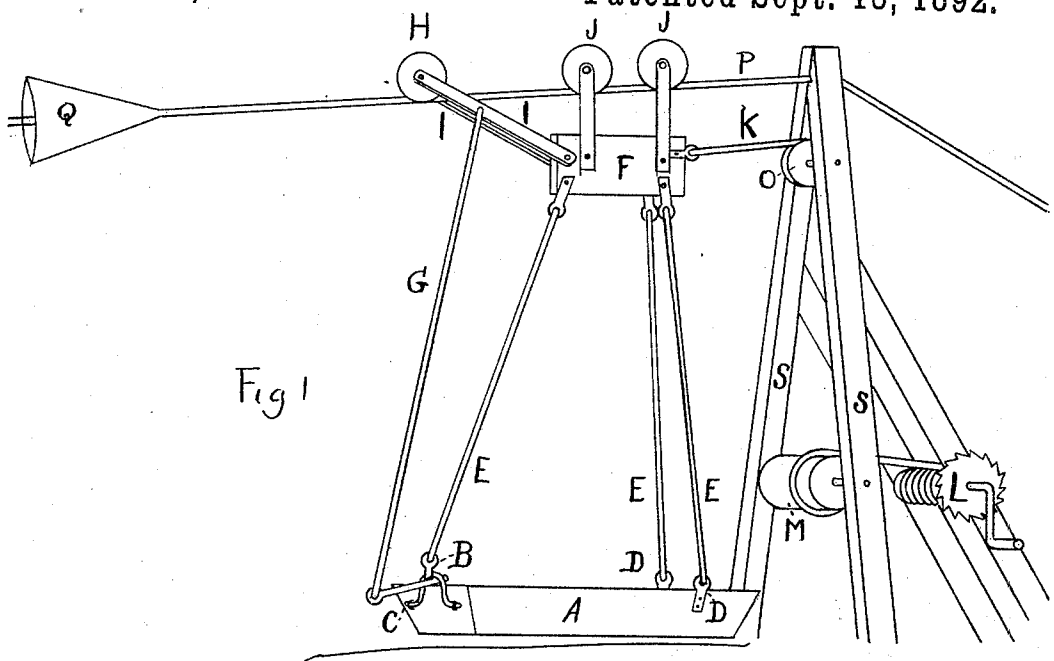

Fig 1

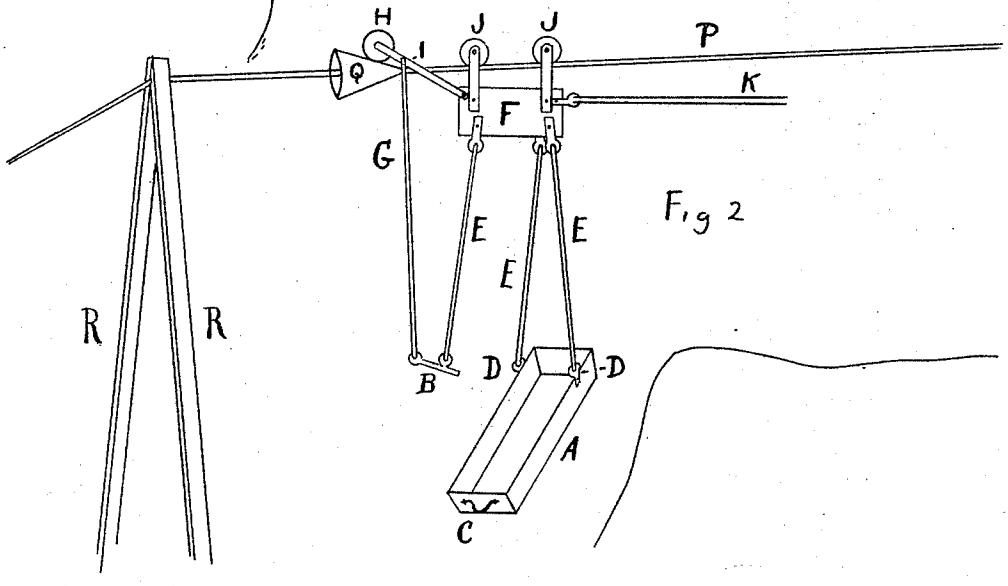

Fig 2

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UNITED STATES PATENT OFFICE.

JAMES C. SMITH AND CHARLES LARDNER, OF TOPEKA, KANSAS.

SELF-ACTING DUMPING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 482,390, dated September 13, 1892.

Application filed May 26, 1892. Serial No. 434,400. (No model.)

To all whom it may concern:

Be it known that we, JAMES C. SMITH and CHARLES LARDNER, both citizens of the United States, residing at Topeka, in the county of Shawnee and State of Kansas, have invented a new and useful Improvement in Self-Acting Dumping Apparatus, of which the following is a specification.

Our invention relates to improvements in dumping-machines where applied to dumping garbage in rivers or other articles in like places where the place of the dump is inconvenient of access.

The objects of our invention are, first, to provide a suitable platform upon which the garbage or material to be dumped may be deposited; second, to suspend the same on a wire rope secured to derricks or masts, which ropes shall extend from the place where the article is to be received on the platform and carried out to the place where it is dumped; third, to provide a supporting arrangement for one end of the dumping-platform which will loosen itself when the carriage having the dump-platform reaches the place of dump. We attain these objects by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a view of the entire machine. Fig. 2 is a view of the reverse incline unlocking one end of the dumping-platform when the carriage reaches that point.

Similar letters refer to similar parts throughout the several views.

A is a dumping-platform, upon which garbage or other material to be dumped is placed. It is suspended upon the wire P by means of trolley F and wires.

B is a dumping-hook formed something like a letter T inverted, one short end of the T being inserted in loop C, which is hinged to the platform, and the other end is connected by wire G to lever-arms I I, and the stem is suspended from one end of the trolley F.

C is a metal loop hinged to one end of the dumping-platform A, in the middle thereof, so that when hanging loose it will drop out of the road of the material to be dumped.

D D are two eye-joints near the other end of the platform, one being on each side thereof.

E E E are three wires, by which the dumping-platform A is suspended from trolley F and supported underneath it, one wire secured in each loop D and one to stem of hook B.

F is a trolley suspended from elevated wire P. Underneath this trolley are three eye-joints, to which wire cables are attached, supporting platform A.

G is a wire rope connecting lever-arms I I with lock attachment B, the purpose of this being, when G is elevated, to loosen hook B and allow the platform to dump.

H is a pulley secured by a pair of lever-arms to one end of the trolley F, supporting wire cable G, and when raised will loosen hook B and permit the platform to dump itself.

I I is a pair of lever-arms connecting pulley H to one end of trolley F. From the lever-arms I I the wire cable G is suspended.

J J are two pulleys upon the elevated wire cable P and supporting the trolley F, that carries the platform A.

K is a wire cable fastened to the trolley F, running around a pulley O and drum M down to windlass L for the purpose of drawing the trolley F from the place of dump up the inclined wire cable P to where the platform is to receive material to be dumped.

L is a windlass worked by a crank having lock to securely hold trolley F where desired.

M and O are two cylinders around which wire cable K is carried.

P is a wire cable mounted at each end on derricks or masts, one end at the place of receiving the article to be dumped and the other end out in the river or place where the article is to be dumped, the wire cable running to the place of dump on a descending inclined plane. The wire cable P is stretched taut and secured rigidly.

Q is a reverse inclined plane, made of metal and cone-shaped, encircling the wire cable P and rigidly secured thereto and engaging pulley H as the platform A and trolley F reach the place of dump.

R R are posts secured near the place of dump, supporting the wire cable P.

S S are two posts or a derreck mounted at the place of receiving the material, supporting the wire cable P.

To operate my machine, the windlass is turned and the trolley F is drawn up near the derrick S S, carrying with it, supported under-

neath, the platform A. This platform is situated where the article to be dumped can be easily placed thereon. When platform A is loaded sufficiently, a dog (not shown) is loosened upon the windlass L, and by its own weight the whole dumping-platform A and trolley F is carried down the inclined cable P to the proper place of dump. Its speed may be checked by almost any device used as a brake at the windlass L. As the pulley H reaches the place of dump it strikes the reverse inclined plane Q, and as pulley H is elevated by that inclined plane it loosens hook B from the loop C and that end of the platform drops and permits the garbage or other material to leave the platform A and go into the place of dump. It is then drawn back into place by the windlass or any suitable power, or the wire K can be placed on a vertical drum near the top of the derrick and be carried to another similar derrick with a similar dumping apparatus, and the descent of one of the dumping-platforms can be used to carry a duplicate platform when emptied to the place where it is to receive the load, and vice versa.

Having thus fully described our invention, what we claim, and desire to secure by Letters Patent, is—

1. In a dumping apparatus, a platform suspended under an elevated inclined cable, said platform having eye-joints on each side near one end and a loop hinged in the middle of the other end, in combination with a hook engaging said loop, a trolley on said inclined cable, two ropes connecting one end of the trolley with the eye-joints on the platform and secured therein, a rope connecting the other end of the trolley with the stem of the hook, a pulley on the inclined cable connected to the trolley by a pair of lever-arms pivoted to said trolley, a rope extending from said lever-arms to one end of the hook, a reverse incline rigidly secured to the inclined cable at place of dump, and suitable power connected by rope to the trolley to return the platform to its place after dumping, all substantially as described.

2. In a dumping apparatus, the receptacle A, in combination with the lever-lock attachment B, loop C, eye-joints D D, wire ropes E E E, trolley F, wire rope G, pulley H, pair of lever-arms I I, wire rope K, windlass L, drum M, pulley O, elevated inclined wire cable P, reverse incline Q, posts R R, and posts S S, all substantially as described.

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