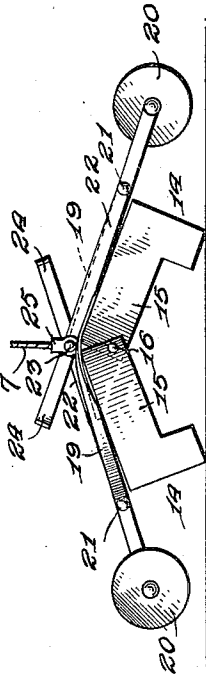


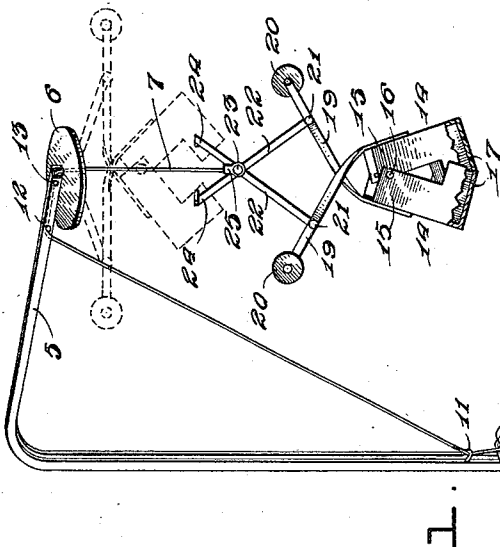
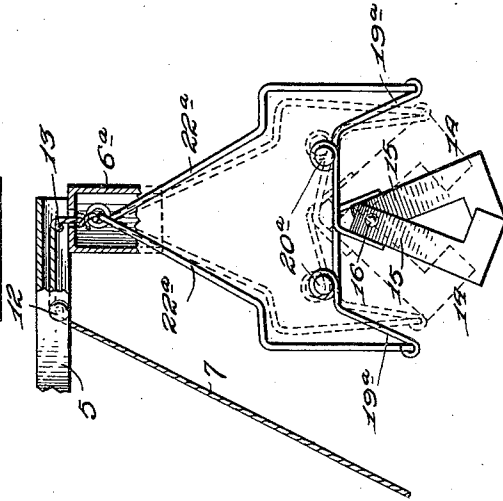
TOY SAND GRABBER.

1,006,705.

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WITNESSES

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Events Lancaster

Mary P. Johnson

INVENTORS

INVENTORS
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and James W. Martin.
By Fredk. W. Winter,
Attorney.

UNITED STATES PATENT OFFICE.

JOHN A. WALLACE AND JAMES W. MARTIN, OF DARLINGTON, PENNSYLVANIA, ASSIGNORS TO ACME NOVELTY COMPANY, OF PITTSBURGH, PENNSYLVANIA, A CORPORATION OF PENNSYLVANIA.

TOY SAND-GRABBER.

1,006,705.

Specification of Letters Patent.

Patented Oct. 24, 1911.

Application filed December 15, 1910. Serial No. 597,472.

To all whom it may concern:

Be it known that we, JOHN A. WALLACE and JAMES W. MARTIN, residents of Darlington, in the county of Beaver and State of Pennsylvania, have invented a new and useful Improvement in Toy Sand-Grabbers, of which the following is a specification.

This invention relates to toys, and the object of the invention is to provide a toy resembling a clam shell dredger in miniature, and arranged to automatically open when lowered, to automatically close when lifted, and to automatically dump when fully elevated, by the mere raising and lowering of the same.

The arrangement comprises the construction and arrangement of parts hereinafter described and claimed.

In the accompanying drawing Figure 1 is a perspective view, partly in section, of the improved toy, showing the jaw or bucket members closed; Fig. 2 is a side view of the jaw or bucket members showing them open; and Fig. 3 is a side view partly in section, showing modified arrangements of bucket members.

The toy described is provided with a suitable base 1 which preferably is formed by bending a wire to generally triangular shape to form a base of sufficient area to give the necessary stability to the structure, and having one of its ends provided with a coil or eye 2 through which the other end 3 projects vertically to form a stud for receiving the hollow mast or upright 4. The latter may be tubular, or U-shape in cross section, as shown, with its lower end closed sufficiently so that it cannot escape from the stud 3, and is loose on said stud so that it can rotate thereon as an axis. This mast has its upper end bent horizontally to form the arm 5, and is in effect a derrick which can be swung around the stud 3. At the end of the arm 5 is a platform 6 or other stationary abutment for a purpose hereinafter described.

The hoisting means comprises a cable 7 which may be a cord or the like adapted to be wound upon a spool or drum 8 mounted in a bracket 9 secured to the mast and provided with a crank handle for rotating the same. Secured to the mast just above the drum or spool is a loop-shaped guide 11 through which the cable passes, the latter

then passing upwardly and over guide pins 12 and 13 near the outer end of arm 5 and down through an opening in platform 6, and at its lower end is attached to the bucket or jaw members.

The jaw or bucket members 14 are of generally rectangular shape, being made of tinned or other thin sheet metal, and are provided with end flanges 15, whose adjacent ends are connected by the pivot rod or pins 16, forming the hinge for said jaw members. The outer sides of these jaw members are formed as walls 17 which are the cutting or biting edges of the jaw or bucket members. Rigidly secured to the back of each jaw or bucket member, such as by soldering, is an arm 19, the arm of each jaw or bucket member extending across the other jaw or bucket member, and considerably beyond the same and being provided with a weighted end 20. Pivotaly secured to each arm 19 at 21 is a link 22, said links crossing each other and being pivoted together at 23. The ends 24 of said links project a considerable distance beyond the pivot 23 and are preferably bent at right angles to form abutments for striking against the stationary platform 6 when the grabber or bucket is fully elevated. The suspending cable 7 is secured to a yoke or clevis 25, through which passes the pivot pin 23.

The weighted ends 20 of arms 19 are sufficiently ponderous to move the jaw or bucket members to the open position, shown in Fig. 2 when the grabber or bucket is dropped on the ground or floor. When the cable 7 is wound on spool 8 to lift the grabber or bucket the links 22 straighten out, and with the arms 19 form substantially a lazy tongs which closes the jaw or bucket members, as shown in Fig. 1. The bucket with the contained contents will remain in this closed position until the ends 24 of links 22 contact with the platform 6, and as the hoisting continues after such contact the links 22 are forced to a relatively horizontal position thereby opening the bucket and discharging the load, as shown in dotted lines, Fig. 1.

The device is intended to be used as a toy in connection either with a sand pile or with a pan containing sand. The pan can be set on the base 1, the bucket lowered onto the same, where it assumes an open position,

and when hoisted will close in the manner of a clam shell bucket and carry with it a quantity of the sand. When elevated the mast 4 can be swung on its pivot 3 and the load discharged at any desired point within the circle described by the end of arm 5. The sand is dumped by merely continuing the hoisting of the bucket until ends 24 of links 22 contact with the platform 6. The user has his hands kept fairly well employed in order to operate the drum or spool 8 and swing the derrick to deposit the load where desired, and as a consequence the toy affords much entertainment for children, more so than toys which are entirely automatic, and which leaves little for the child to do. The toy can be operated by even a small child, and at the same time gives a larger child enough to do to hold his interest.

Fig. 3 shows a modification wherein the links 22^a are connected to the extreme outer ends of arms 19^a, while weights 20^a are located between the ends of said arms. In this form the ends of links 22^a are connected directly together and to the hoisting cable. The opening of the bucket to discharge the load in this case is effected by a tubular stationary abutment 6^a on the end of arm 5 into which the upper ends of links 22^a are drawn to force said links toward each other, and this, on account of the connection of said links to the outer downturned ends of arms 19^a, causes the jaw or bucket members to automatically open. With this form where the links 22^a are connected to the outer ends of the arms 19^a it is essential that said outer ends of the arms 19^a be bent downwardly, as illustrated. The members 14 may be jaws of any form to grab material or objects of any kind.

What we claim is:

1. A toy comprising a pair of pivotally connected jaw members, a weighted arm rigid on each of said jaw members, each of said arms projecting over the other jaw member, links respectively pivotally connected to each of said arms and to each other, and a hoisting cable suspending the pivotal point of said links.

2. A toy comprising a pair of pivotally connected jaw members, an arm rigid on each of said jaw members, each of said arms projecting over the other jaw member, links respectively pivotally connected to each of said arms and to each other, weights carried by said arms, and a hoisting cable suspending the pivot of said links.

3. A toy comprising a pair of pivotally connected jaw members, weighted arms

rigidly connected to said jaw members, links pivotally connected to said weighted arms and to each other, and a single hoisting cable connected to said links, the parts being so arranged that the single hoisting cable closes the jaw members when lifted and that the weights open said jaw members when dropped.

4. A toy comprising a pair of pivotally connected jaw members, lazy tong members connected to said jaw members, a single hoisting cable connected to said lazy tong members, and a stationary abutment arranged in the path of said lazy tong members and adapted when contacted by said lazy tong members, to open the jaw members.

5. A toy comprising a pair of pivotally connected jaw members, a weighted arm rigid on each of said jaw members, each arm projecting over the other jaw member, a hoisting cable, and flexible connections therefrom connected respectively to each of said arms, a derrick, winding means on said derrick for said cable, a stationary abutment on said derrick, and means on the jaw members which when the latter are lifted will contact with said stationary abutment and open the jaw members.

6. A toy comprising a pair of pivotally connected jaw members, a derrick, winding means thereon, a cable extending from the winding means to the jaw members and connected thereto by means arranged to close the jaw members upon lifting the same, a stationary member on said derrick arranged in the path of movement of the jaw members, and means connected to the jaw members arranged upon contact with said stationary member to open said jaw members.

7. A toy comprising a base provided with an upwardly extending projection, a derrick comprising a hollow mast stepped on said projection, winding means on said derrick, pivotally connected jaw members, a cable extending from the winding means to said jaw members, oppositely projecting members connected to said jaw members, and a member carried by said derrick and arranged to be contacted by said oppositely projecting members to open the jaws.

In testimony whereof, we have hereunto set our hands.

JOHN A. WALLACE.
JAMES W. MARTIN.

Witnesses:

O. A. DILLEY,
MINNIE DILLEY.