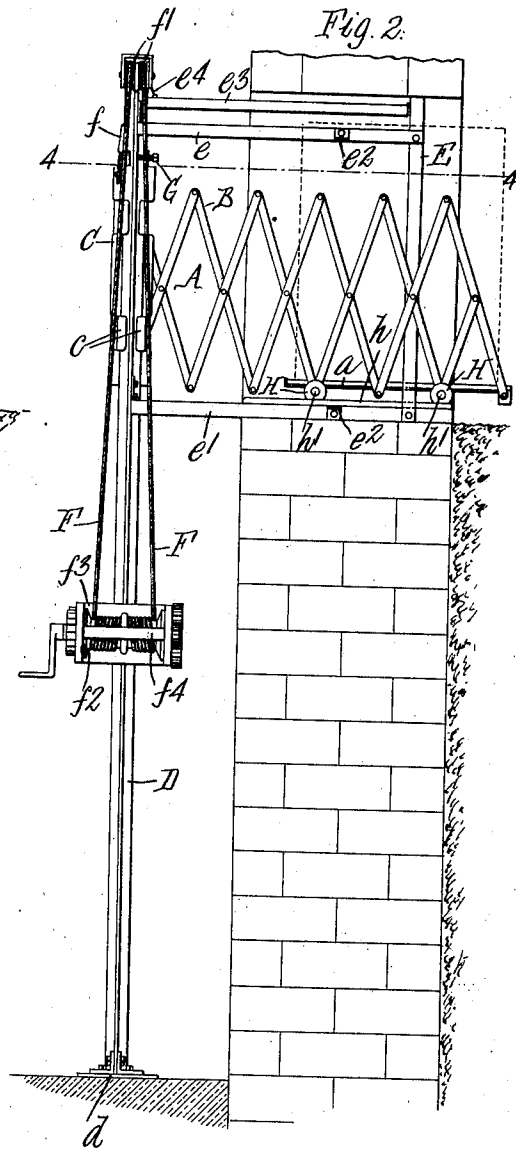
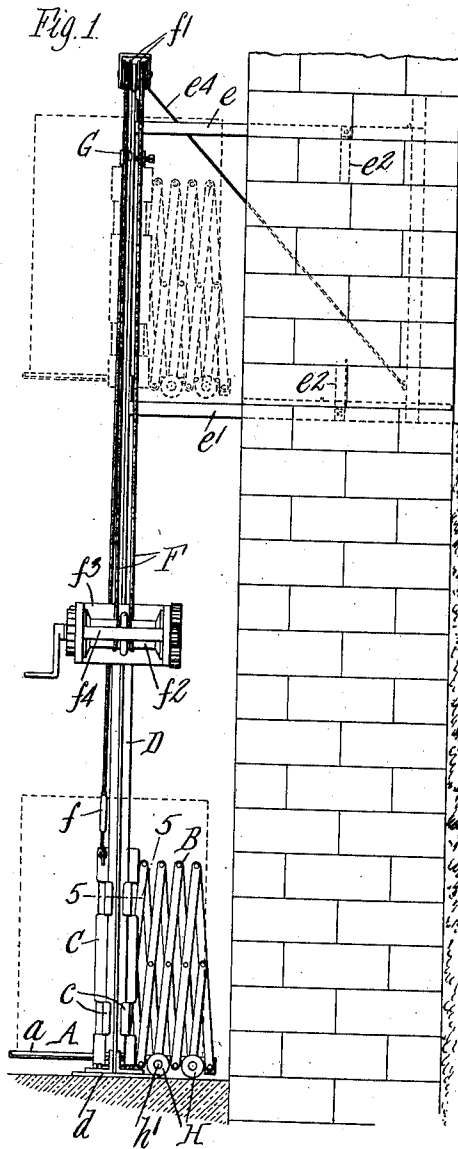


1,038,329.

C. K. ERNST.
HOISTING APPARATUS.
APPLICATION FILED APR. 1, 1911.

Patented Sept. 10, 1912.

2 SHEETS—SHEET 1.



Witnesses.

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Inventor

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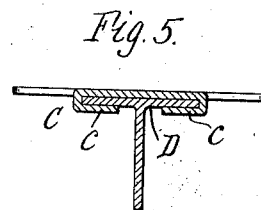
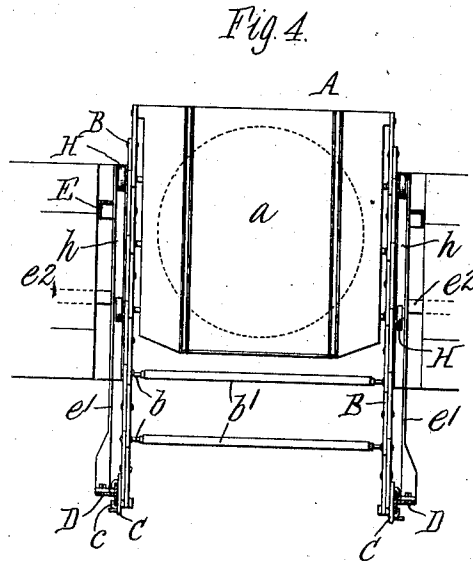
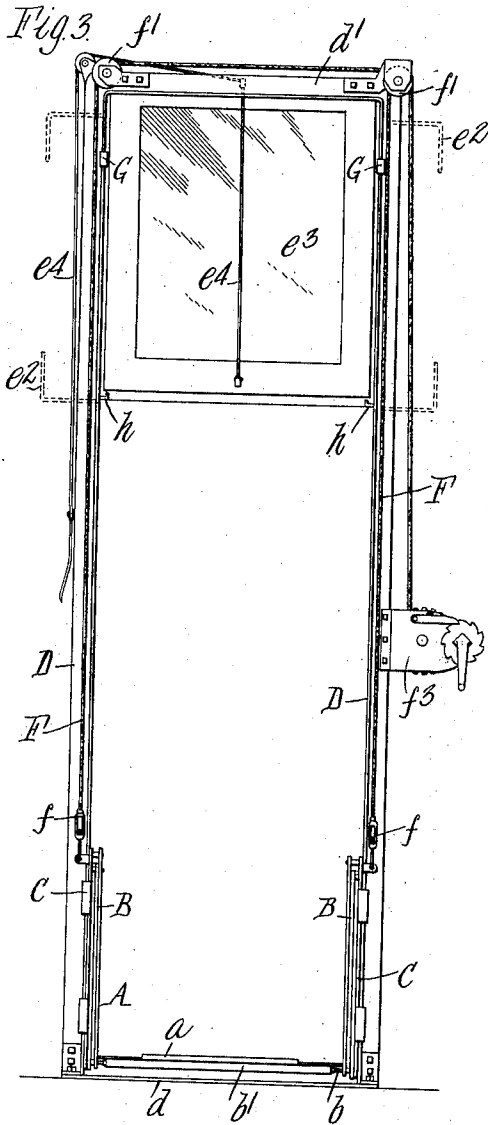
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2 SHEETS—SHEET 2.



Witnesses.

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UNITED STATES PATENT OFFICE.

CHARLES K. ERNST, OF BUFFALO, NEW YORK.

HOISTING APPARATUS.

1,038,329.

Specification of Letters Patent.

Patented Sept. 10, 1912.

Application filed April 1, 1911. Serial No. 618,371.

To all whom it may concern:

Be it known that I, CHARLES K. ERNST, a citizen of the United States, residing at Buffalo, in the county of Erie and State of New York, have invented a new and useful Improvement in Hoisting Apparatus, of which the following is a specification.

This invention relates to a hoisting apparatus which is intended to be used principally in cellars and vaults, in connection with windows or openings in the walls thereof, for hoisting ash cans and other objects up from the bottom of the cellar and out through the window.

The object of this invention is to provide a hoisting apparatus for this purpose of simple and inexpensive construction which will occupy but little space in the cellar and can be quickly installed therein and easily operated for hoisting the ash cans and other objects up to the window or opening in the wall and moving them outwardly through the same to a point where they are accessible from the outer side of the wall.

In the accompanying drawings, consisting of two sheets: Figure 1 is a side elevation of a hoisting apparatus embodying the invention, showing the same in its lowered position in the cellar. Fig. 2 is a similar view, showing the apparatus in its raised and extended position. Fig. 3 is a front elevation of the apparatus in the position shown in Fig. 1. Fig. 4 is a sectional plan view of the apparatus in line 4-4, Fig. 2. Fig. 5 is a fragmentary section, on an enlarged scale, through the guide and guide plate in line 5-5, Fig. 1.

Like reference characters refer to like parts in the several figures.

The hoisting apparatus comprises an elevating carriage which is suitably mounted in the cellar in such a manner that it can be raised to a position opposite a window or opening in the cellar wall and is provided with a platform or support for the article to be raised which is movable laterally or in a substantially horizontal direction, so that when the carriage is in its elevated position the platform can be moved outwardly through the window or opening to a point where the article resting thereon will be accessible from without the wall. The elevating carriage travels on suitable guides which direct its up and down movements and means are provided for raising and lower-

ing the carriage and for securing it in its elevated position opposite the window.

In the particular embodiment of the invention shown in the drawings, A represents the elevating carriage which consists of a platform or support *a* upon which the article to be raised is placed, lazy tongs B B which are arranged on opposite sides of the platform and secured thereto at one end, and upright supporting and guiding plates C C to which the opposite ends of the lazy tongs are connected. The lazy tongs B are of usual construction, being composed of diagonal levers or bars which are pivoted together centrally and at their ends in the usual manner and are arranged on edge at each side of the platform. Both sets of lazy tongs are preferably pivotally connected at their outermost lower edges to the outer end of the platform *a* and at their inner ends they are pivoted at their upper and lower edges to the upright plates C. The corresponding bars of each set of lazy tongs are connected together at their lower ends by cross rods *b* upon which rollers *b'* are preferably journaled to facilitate the movement of the platform *a* over the rods. Any other suitable means, however, may be employed for connecting the two sets of bars together.

The upright supporting plates C C may be of any suitable construction and any suitable means may be employed for guiding the carriage A in its up and down movements. In the construction shown, upright guides D D are provided which are of T-shape and are arranged with their flanged faces opposite to each other at each side of the carriage. The plates C C are adapted to slidably engage the flanged faces of the guides and are provided with inturned edge portions *c c* which embrace the edges of the flanged faces of the guides and hold the plates in sliding engagement therewith. The guides D D are connected together at their lower ends by a base plate *d* which rests upon the floor of the cellar, and at their upper ends by a cross bar *d'* which is preferably formed integrally therewith.

The guides are arranged to stand a short distance away from the cellar wall with their upper ends opposite to the window or opening therein, and any suitable means may be employed for securing them in this position. In the construction shown, the

window or opening in the wall is provided with a frame E and bars e e' connect each of the guides D with the sides of this frame. These bars are provided with laterally extending anchor arms e^2 which are embedded in the wall of the cellar and secure the bars firmly in place. The connecting bars e and e' thus serve both to hold the guides A in their upright position and to retain the frame E in place in the window opening. The frame E may be provided with the usual window e^3 which is hinged thereto to open inwardly and upwardly and a cord e^4 may be provided, if desired, for opening this window and holding it open when the apparatus is being used.

Any suitable means may be employed for raising and lowering the elevating carriage A. In the construction shown, hoisting ropes F F are provided which are connected to the carriage plates C C by turn-buckles f f which permit the length of the ropes to be adjusted. These ropes travel over suitable pulleys f' f' which are journaled upon the guides D D at the upper ends thereof and thence pass to a winding drum f^2 which is journaled in a bracket f^3 secured in an accessible position upon one of the guides D. The drum is adapted to be turned for winding by the usual hand operated winding shaft f^4 with which it is geared, and is divided centrally so that the hoisting ropes for the opposite sides of the carriage will be wound on opposite ends of the drum. Suitable adjustable stops G on the guides D serve to limit the upward movement of the carriage by engagement with the plates C. These stops may be adjusted so that when the carriage is raised, it will be brought to a stop directly opposite the lower edge of the window frame or opening.

The lazy tongs are arranged on the outer or wall side of the guides and when the carriage is in its lowered position the lazy tongs are collapsed, so that one end of the platform a extends inwardly beyond the guides into the cellar, as shown in Fig. 1. The ash can or other object to be raised is placed on the platform when it is in this position and the weight is thus distributed upon opposite sides of the plates C so that it will exert little side or tipping strain upon the lazy tongs which connect the platform to the side plates.

When the carriage has been raised to its elevated position opposite the window, the platform and its contents can be moved by hand outwardly through the window opening to the position shown in Fig. 2. The lazy tongs will readily open or expand to permit this outward movement and will support the platform and its weight during the same. To facilitate this outward movement of the platform and relieve the lazy tongs from supporting the entire weight thereof

when fully extended, rollers H are preferably provided which are mounted on the lazy tongs at opposite sides of the platform and are adapted to engage and travel upon suitable tracks h in the window opening. The rollers H when they are in engagement with the tracks assist in supporting the weight which is carried by the platform and also permit the platform to be easily moved outwardly through the window opening.

Any suitable means may be employed for mounting the rollers H on the lazy tongs and securing the tracks h in the window opening. In the construction shown the rollers are journaled upon extensions h' of the connecting rods b which project beyond the outer sides of the lazy tongs, and the tracks h are bolted or otherwise secured to the upper sides of the guide securing bars e' and extend through the window opening to the outer edge of the wall. Two rollers are shown on each side of the platform a but a greater or less number may of course be used, as desired.

The hoisting apparatus can be inexpensively manufactured and easily and quickly installed in the cellar. Its operation is easy and it greatly facilitates the removal of ashes and other objects as it enables the operator to not only hoist the cans up to the window but to easily move them in their upright position through the window without requiring them to be lifted or tipped.

While intended especially, as stated, for use in vaults or cellars, the apparatus can be used in any place where it is necessary to hoist or raise objects upwardly and then move them for a short distance in a horizontal direction.

I claim as my invention:

1. In a hoisting apparatus, the combination with a carriage elevating means, of a carriage comprising a supporting portion which is connected to said elevating means and is adapted to be raised and lowered thereby, a portion adapted to carry the object to be elevated, and pivotal connections between said carrying portion and said supporting portion which support said carrying portion and permit the same to be moved laterally relative to said supporting portion, substantially as set forth.

2. In a hoisting apparatus, the combination of a platform for the article to be raised, supporting members at opposite sides of said platform, upright guides for said supporting members, expansible connections between said platform and said supporting members which support said platform and permit the same to be projected laterally relative to said supporting members, said connections standing upright at the opposite side edges of said platform,

and elevating means for said supporting members, substantially as set forth.

3. In a hoisting apparatus, the combination of a platform adapted to carry the object to be elevated, upright guides at opposite sides of said platform, expansible supporting means which connect said platform with said guides and permit said platform to be projected laterally relative to said guides, and elevating means for said supporting means, substantially as set forth.

4. In a hoisting apparatus, the combination of a carriage comprising a portion adapted to carry the object to be elevated, supporting members on opposite sides of said carrying portion, and lazy tongs connecting said carrying portion to said supporting members and arranged on edge at each side of said carrying portion, guides for said supporting members, and means connected to said supporting members for elevating said carriage, substantially as set forth.

5. In a hoisting apparatus, the combination of a carriage comprising a portion adapted to carry the object to be elevated, supporting members on opposite sides of said carrying portion, and lazy tongs connecting said carrying portion to said supporting members and arranged on edge at each side of said carrying portion, and cross rods connecting said lazy tongs together transversely of the carriage and forming supports for said carrying portion, guides

for said supporting members, and means for elevating said carriage, substantially as set forth.

6. In a hoisting apparatus, the combination of a carriage comprising a portion adapted to carry the object to be elevated, supporting members on opposite sides of said carrying portion, and lazy tongs arranged on edge at each side of said carrying portion and pivotally connected thereto at one end and at their opposite ends to said supporting members, guides for said supporting members, and means mounted on said guides for elevating said carriage, substantially as set forth.

7. In a hoisting apparatus, the combination of a carriage comprising a supporting portion and a carrying portion for the object to be raised, said carrying portion being adapted to be moved relative to said supporting portion through an opening in a wall, means for elevating said carriage, guides for said supporting portion, a frame for said opening, and stays connecting said guides with said frame and adapted to be secured in the wall, substantially as set forth.

Witness my hand in the presence of two subscribing witnesses.

CHARLES K. ERNST.

Witnesses:

EDWARD C. HARD,
C. B. HORNBECK.

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