(No Model.) 2 Sheets—Sheet 1.

J. U. BECKEMAN.

SAFETY RELEASE HOOK.

No. 518,131. Patented Apr. 10, 1894.

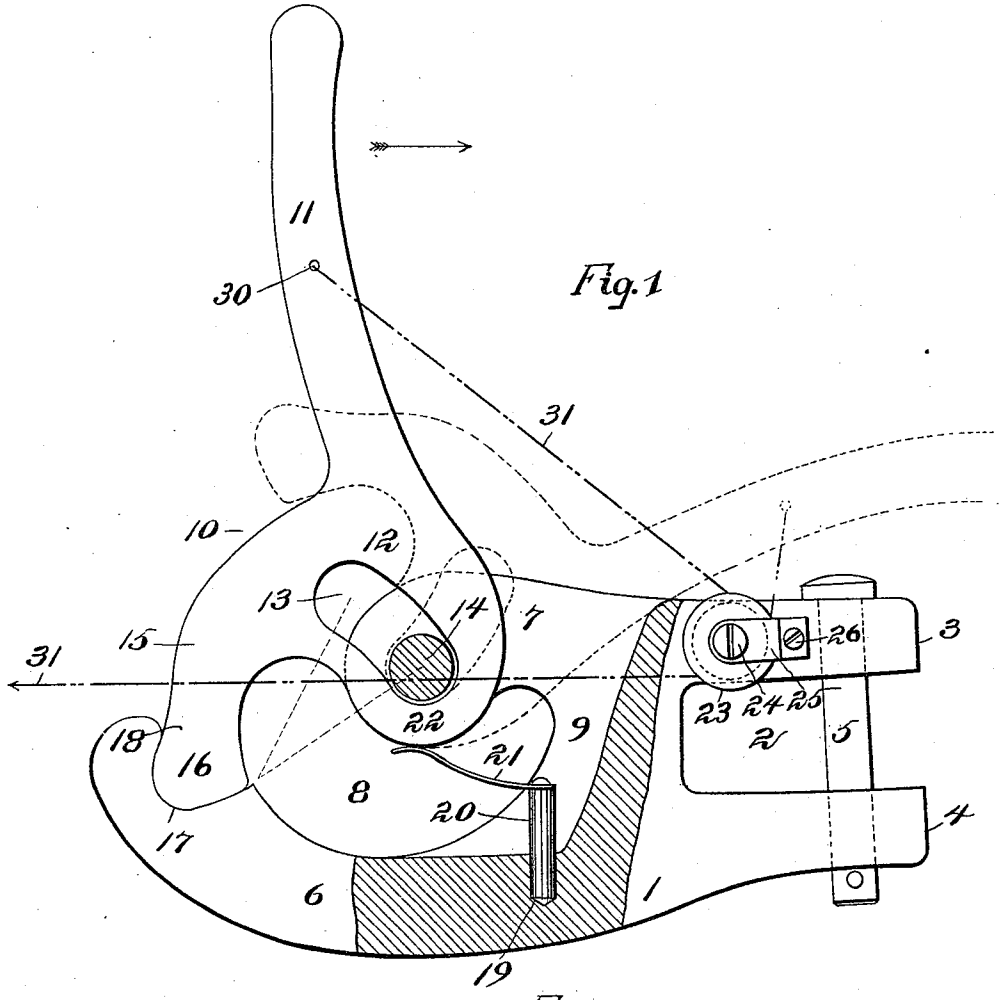


Fig. 1

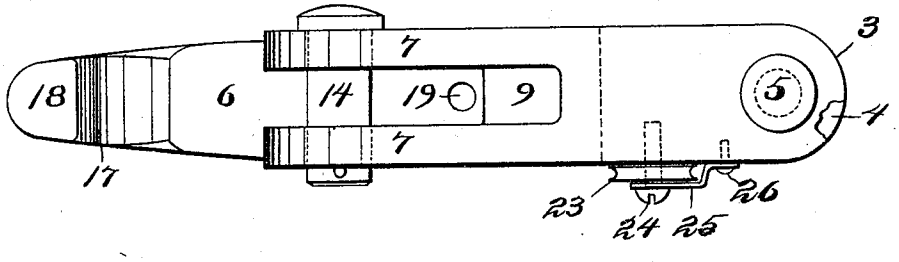


Fig. 2

Witnesses:
Jos. Frochlich.
W. J. Sankey.

Inventor:
John. U. Beckeman.
By Higdon & Higdon & Longan Attys

THE NATIONAL LITHOGRAPHING COMPANY,
WASHINGTON, D. C.

(No Model.) 2 Sheets—Sheet 2.

J. U. BECKEMAN.

SAFETY RELEASE HOOK.

No. 518,131. Patented Apr. 10, 1894.

Fig. 3

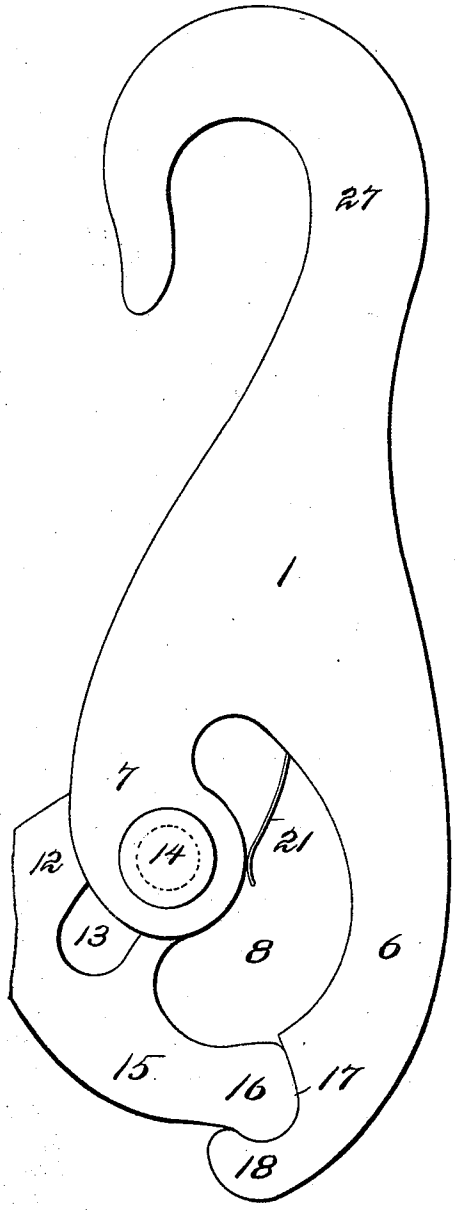
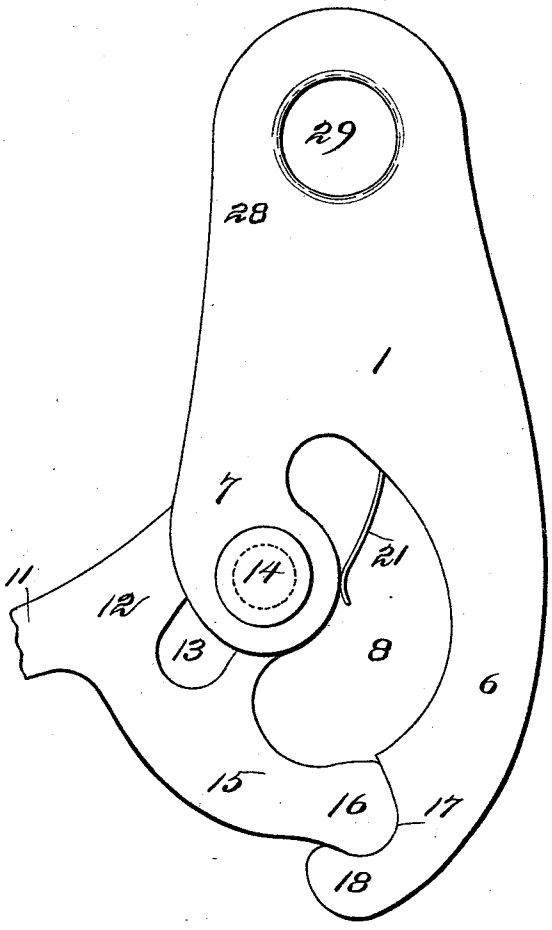


Fig. 4



Witnesses.
Jos. Froehlich.
W. J. Stanley.

Inventor
John. U. Beckeman
By Higdon & Higdon & Longan. Atty's

THE NATIONAL LITHOGRAPHING COMPANY,
WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

JOHN U. BECKEMAN, OF ST. LOUIS, MISSOURI.

SAFETY RELEASE-HOOK.

SPECIFICATION forming part of Letters Patent No. 518,131, dated April 10, 1894.

Application filed November 7, 1893. Serial No. 490,255. (No model.)

To all whom it may concern:

Be it known that I, JOHN U. BECKEMAN, of St. Louis, State of Missouri, have invented certain new and useful Improvements in Safety Release-Hooks, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part hereof.

My invention relates to an improved safety release hook, and consists in the novel construction, combination and arrangement of parts hereinafter described and designated in the claims.

In the drawings: Figure 1 is a side elevation of my improved hook, showing the latch closed in solid lines and open by dotted lines, a portion of the side being removed to more clearly show a spring which is used to hold the latch in an open position. Fig. 2 is a plan view of Fig. 1, with the exception that the latch and spring are removed. Figs. 3 and 4 are side elevations, showing modified constructions.

Referring to the drawings: 1 indicates the main body of the hook, which is preferably formed of cast or malleable iron, and is provided on one end with a slot 2, which forms projections or ears 3 and 4, which are provided with suitable perforations so that a pin 5 can be passed through said ears for connecting a rope or cable with said main body of the hook.

The main body 1 of the hook is wider than it is thick, thus being rectangular in cross-section. Formed on the lower edge of the main body 1, and extending outward therefrom, is a projection 6 which is bent up a suitable distance at its free end. Formed on the upper edge of the main body are two parallel perforated ears 7 which overhang the projection 6, thus forming an opening or cut-away portion 8 between said ears and said projection, and a cut-away portion 9 between said ears.

10 indicates a latch which is constructed with a handle 11, and the main body 12 of said latch 10 is constructed with a slot 13, so that when the main body 12 of the latch is placed between the perforated ears 7, a pin 14 can be passed through said slot for retaining said latch in position with the perforated ears. Formed on the main body 12 of the latch 10 is a hooked projection 15, which is provided with an enlarged portion 16 at its free end, which engages a depression 17 formed in the free end of the projection 6. The depression 17 is so constructed as to form a projection 18 on the free end of the projection 6 in such a manner that the enlarged portion 16 of the hooked projection 15 will engage the same, so that when draft is applied to said hooked projection it will not become detached from the depression 17.

Formed in the projection 6, adjacent the main body 1 of the hook, is an aperture 19 in which one end of a pin 20 is located, and the opposite end of said pin projects a suitable distance from the projection 6 so that one end of a spring 21 can be connected thereto, and the opposite end of said spring will engage the portion 22 of the latch 10.

23 indicates a pulley which is connected to one side of the perforated ear 3, and held in position by a screw or pin 24 passing through the adjacent end of a strap 25, and through said pulley and screwed into the adjacent side of said perforated ear. The opposite end of the strap 25 is bent so it will engage the side of the ear 3 and can be readily connected thereto by a bolt or screw 26.

In Fig. 3, 27 indicates a hook of ordinary construction which is connected to the main body 1 of the safety hook, and is for the purpose of connecting said safety hook with a rope or cable.

In Fig. 4, 28 indicates a projection which is formed on the main body 1 of the hook, and is provided with an aperture 29 to which a rope or cable can be tied.

I desire to state before proceeding further, that my improved hook can be used in a vertical or horizontal position. When it is used in a vertical position, as required for lifting a weight, such as a pile-driver, and it is desired to release said weight when in an elevated position, a rope is connected to the handle 11 at the point 30, and passes from thence over the pulley 23, as indicated by the dotted line 31.

The operation is as follows: When the latch is in the position shown by solid lines in Fig. 1, and it is desired to release the enlarged portion 16 of the projection 15 from the depression 17, or in other words open the hook, the

operator draws back on the handle 11 in the direction indicated by the arrow in Fig. 1, which will cause the main body 12 of the latch, in which the slot 13 is formed, to be pushed downward on the spring, the enlarged portion 16 forming a fulcrum in the depression 17 until the opposite end of the slot 13 engages the pin 14 which will allow the enlarged portion 16 to be released from the depression 17, so that it can pass the projection 18 on the projection 16, and thus allow the latch to be opened in the position shown by dotted lines in Fig. 1. The spring 21 engaging the latch in the manner hereinbefore described, it will hold the latch in a closed or open position, and thus prevent the handle from dropping back in the position shown by dotted lines in Fig. 1.

When the hook is used in a vertical position, and it is desired to release the same when at an elevated position, a rope (as indicated by the dotted line 31) is connected to the handle 11 and passed over the pulley 23, thence to the required place, so that when the hook is raised to the required height by pulling on the free end of said rope it will release said latch and allow the object which it engages to drop as required when used to elevate pile-drivers and the like.

What I claim is—

1. In a safety release hook a main body 1 having perforated projections 3 and 4 formed integral with one end, and a projection 6 having a depression 17 in its free end formed integral with the other end, two perforated parallel ears 7 formed integral with said body in such a manner that they will overhang said projection 6, a latch 10 having a segmental slot 13 fulcrumed between said ears, a projection 16 formed on said latch to engage the depression 17 in the free end of the projection 6, and a spring connected to the body for retaining said projection in engagement with the free end of said projection 6, substantially as set forth.

2. The safety release hook comprising a body having perforated projections 3 and 4 formed integral with one end, a projection 6 having a depression in its free end formed integral with the other end of said body, two perforated ears formed integral with said body in such a manner that they will overhang said projection, a latch having a segmental slot fulcrumed between said ears, a projection formed on the free end of said latch in such a manner that when the hook is in a closed position it will engage the depression in the first mentioned projection, and a pulley connected to one side of the perforated projection 3 to support a rope for disengaging the projection of the latch from the depression when the hook is in an elevated position, substantially as set forth.

3. In a safety release hook, a main body 1 which is rectangular in cross-section, having perforated projections formed on or fixed to one end, a projection 6 having a depression 17 in its free end which forms an enlarged portion 18 thereon, perforated parallel ears overhanging said projection 6, a latch 10 having a slot 13, fulcrumed between said ears, a projection 15 formed on the main body 12 of the latch 10, an enlarged portion formed on the free end of said projection 15 which engages the depression 17 in the projection 6, a handle 11 connected to the main body 12 of the latch 10, one end of a rope connected to said handle which passes over a pulley connected to one of the perforated projections, a pin 20 located in an aperture 19 formed in the projection 6, and a spring connected to the free end of said pin, said spring engaging the portion 22 of the main body 12 of the latch 10, substantially as set forth.

In testimony whereof I affix my signature in presence of two witnesses.

JOHN U. BECKEMAN.

Witnesses:

W. J. SANKEY,

E. E. LONGAN.