F. H. HOLMES.

CONNECTING DEVICE FOR PIPE ELEVATORS.

APPLICATION FILED JULY 19, 1911.

1,021,984.

Patented Apr. 2, 1912.

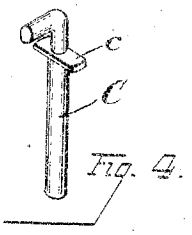

Fig. 4.

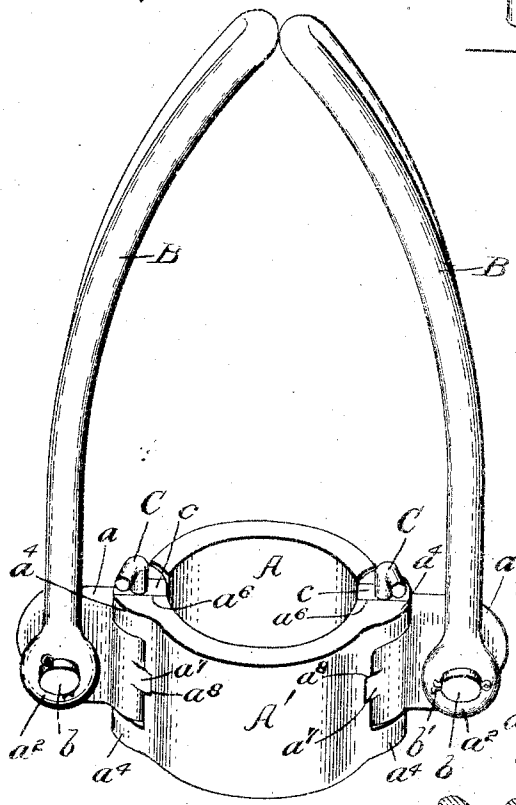

Fig. 1.

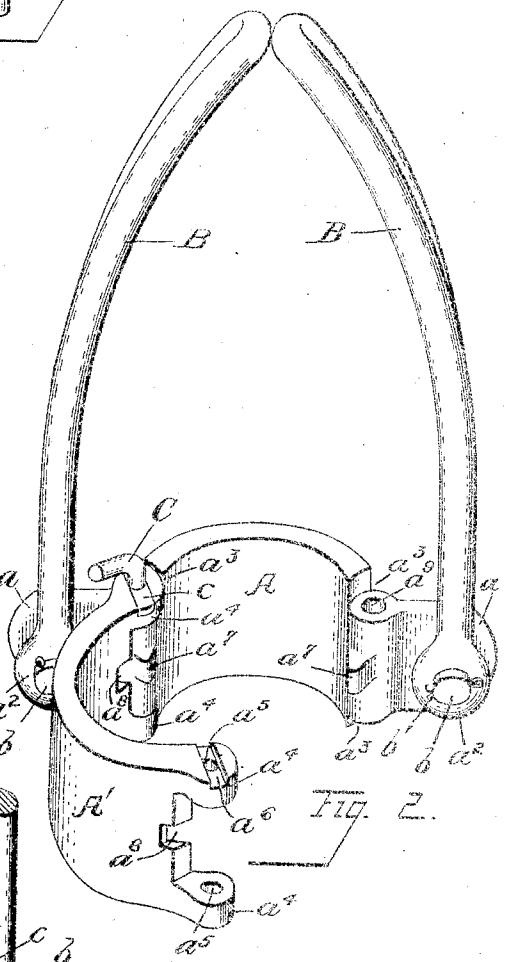

Fig. 2.

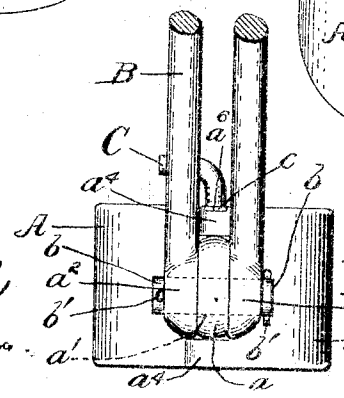

Fig. 3

Witnesses

Herman Esch

Winifred Ramina

Inventor.

Frank H. Holmes

By A. Frankel

his Attorney

UNITED STATES PATENT OFFICE.

FRANK H. HOLMES, OF OIL CITY, PENNSYLVANIA.

CONNECTING DEVICE FOR PIPE-ELEVATORS.

1,021,984. Specification of Letters Patent. Patented Apr. 2, 1912.

Application filed July 19, 1911. Serial No. 639,321.

To all whom it may concern:

Be it known that I, FRANK H. HOLMES, a citizen of the United States, resident of Oil City, county of Venango, and State of Pennsylvania, have invented a new and useful Improvement in Connecting Devices for Pipe-Elevators, of which the following is a specification, the principle of the invention being herein explained and the best mode in which I have contemplated applying that principle, so as to distinguish it from other inventions.

My invention relates to connections for elevators used for raising or lowering pipe or tubing from oil wells. These devices are commonly referred to in the art by the single term "elevator." These connections are in practice subjected to great strain, and it is therefore necessary to make the parts extremely heavy. The weight of the entire connection usually amounts to about one thousand pounds.

The object of the invention is to prepare a device of this character which may be readily attached or detached from the pipe, which will be economical in its structure and efficient in its operation, and which may be dismounted so as to be more readily handled and transported.

The said invention consists of means hereinafter fully described and particularly pointed out in the claims.

The annexed drawing and the following description set forth in detail certain means embodying my invention, the disclosed means, however, constituting but one of various mechanical forms in which the principle of the invention may be employed.

In said annexed drawings:—Figure 1 is a perspective view of an elevator connection embodying my invention, and showing the parts in their closed position. Fig. 2 is a similar view showing the parts in their open position. Fig. 3 is a side elevation of a fragmentary portion. Fig. 4 is a detail perspective view of one of the hinge-pins.

The embodiment of my invention as illustrated in the drawing, comprises two main parts, the strap, consisting of that portion which immediately surrounds the pipe or tubing beneath the coupling, and the bails. This strap consists of two parts, a main strap portion A and a secondary strap portion A′. This main strap portion is provided with two laterally projecting integral end lugs *a a* which are each provided with a transverse horizontal bore *a′*. These lugs are connected with the bails B B which are identical with each other in construction. These bails each consist of a single bar of metal bent to form a loop and having its lower ends formed with eyes a^2 a^2. The diameter of the bore of these eyes is the same as that of the bores in the lugs *a′*, and the eyes and lugs are connected with each other by means of removable pins *b b*. These pins are preferably secured in place by means of split keys *b′ b′*. It will therefore be readily seen that to remove the bails, it is merely necessary to remove the split keys *b′*, whereby the pins *b* may be readily removed and the bails thereby detached. This permits the bails to be separately handled for transportation.

The member A is cut away at its ends, as at a^3 a^3, these cut-away portions forming seats for lugs a^4 a^4, formed upon the secondary strap member A′. This construction is provided at both ends of the members A A′, so that both these ends overlap, as will be readily understood. These overlapping portions are provided with vertical bores a^5 a^5 which register with each other, and are adapted to receive the removable hinge pins C C. These pins are bent at their upper ends, and are provided with laterally projecting lugs *c c*. Depressions a^6 a^6 are provided in the upper of the lugs a^4 a^4 to receive these lugs *c*, the depth of the depressions being made equal to the thickness of the lugs. The inwardly projecting portion of these lugs *c* in consequence falls directly beneath the coupling of the pipe or tubing, when the latter is suspended by the connection. The coupling, therefore, in this position prevents the accidental removal of the pins during the operation of lifting the pipe or tubing. Each of the pins being removable as described, either one or the other may be dismounted so that the corresponding end of the secondary member A′ may be swung upon its other end as a result of the hinge structure provided by the above-described construction.

By removing both the pins, the secondary member A′ may be entirely dismounted for transportation.

It will therefore be seen that the above described form of structure permits the entire connection to be disassembled for transportation by separating each bail from the member A, removing both hinge pins, and

removing the secondary member A′. The secondary member A′ being hinged at both ends, may, as before noted, be opened in either direction, thereby permitting the connection to be operated with great facility and ease.

To provide still further strength at the hinged portions, I furthermore provide the member A with lugs a^7 a^7, which, when the parts are in a closed position, project into recesses a^8 a^8 of the member A′. In this manner, a connection dismountable in character, ease of operation, and of great strength, is obtained.

Having fully described my invention, what I claim and desire to secure by Letters Patent is:—

1. In a connecting device for pipe elevators, the combination with a strap adapted to surround the pipe, and comprising a main member, a secondary member, and means connecting such two members to form two hinges, a part of each of such hinge-forming means being dismountable, whereby said secondary member may be swung upon either of such two hinges; of suitable bails connected with said strap.

2. In a connecting device for pipe elevators, the combination with a strap adapted to surround the pipe, and comprising a main member, a secondary member, the ends of said two members being formed to overlap and provided with registering bores, and removable hinge-pins seated in said bores and connecting said two members; of suitable bails connected with said strap.

3. In a connecting device for pipe elevators, the combination with a strap adapted to surround the pipe, and comprising a main member, together with a secondary member, such two members being formed to overlap, such overlapping portions being provided with registering bores, and a removable hinge-pin seated in said bores and provided at its outer portion with a laterally projecting lug adapted to project beyond such bore; of suitable bails connected with said strap.

4. In a connecting device for pipe elevators, the combination of a strap-member forming substantially one-half of the entire strap, and formed at each of its ends with a projecting lug; a second strap-member mounted upon said first-named strap-member and having a hinged connection therewith at each end; part of such hinge connection being removable, whereby said second-named member may be swung upon either of such hinge connections, or such member may be removed entirely; and bails disconnectibly mounted upon said lugs.

5. In a connecting device for pipe elevators, the combination of a strap adapted to surround the pipe and provided with two laterally projecting lugs, each such lug being provided with a transverse bore; a bail consisting of a single bar of metal bent to form a loop, and provided with two eyes at its free ends; and removable pins passing through said eyes and the bores of said lugs respectively.

Signed by me, this 10th day of July, 1911.

FRANK H. HOLMES.

Attested by—

OTTO S. JESSEN,

MAX KURTH.