

B. WALTER.
PNEUMATIC HOIST.
APPLICATION FILED SEPT. 24, 1908.

917,688.

Patented Apr. 6, 1909.

FIG. 1

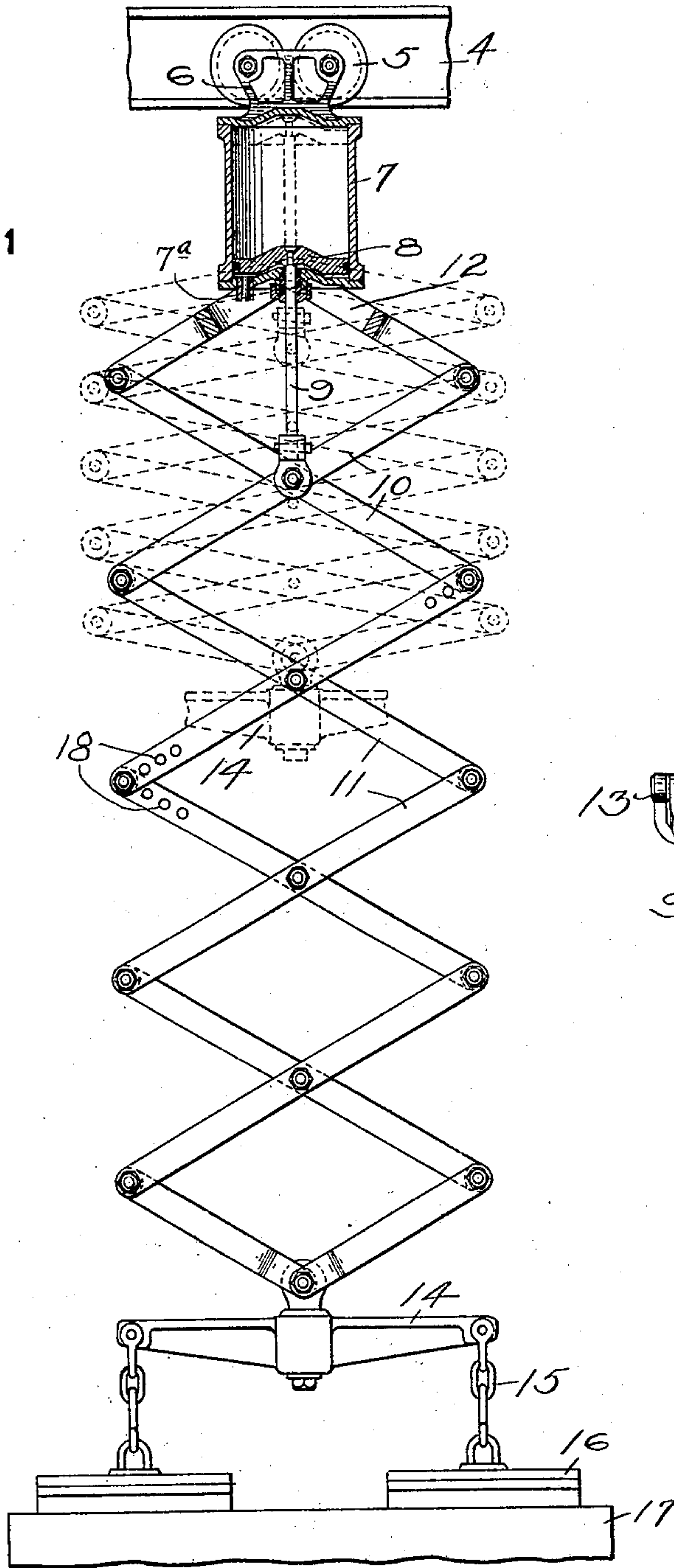
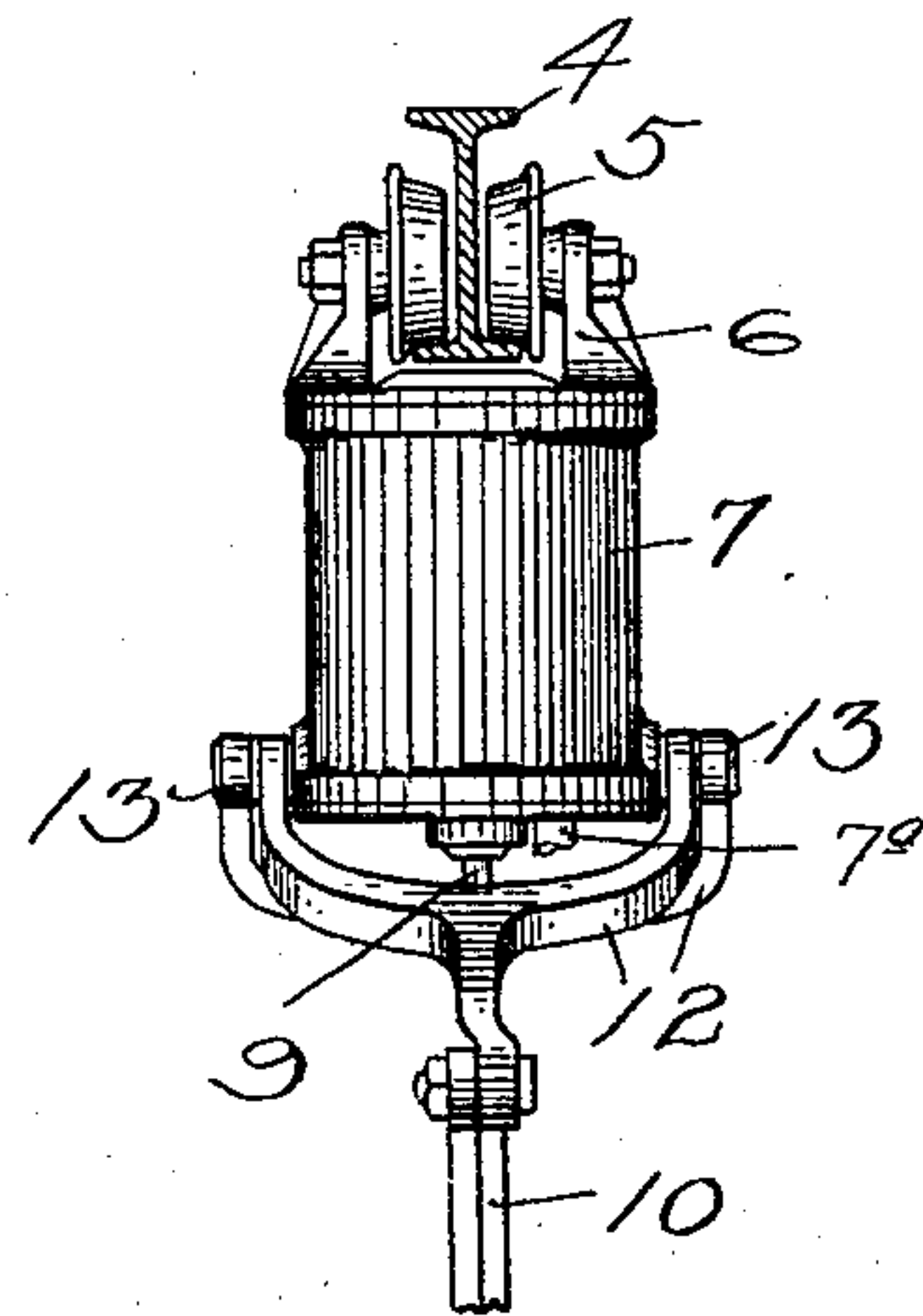


FIG. 2



WITNESS:
M. Arthur Kelen.

Fred. Staup.

INVENTOR;
Bruce Walter
By J. W. H. Clay atty.

UNITED STATES PATENT OFFICE.

BRUCE WALTER, OF PITTSBURG, PENNSYLVANIA.

PNEUMATIC HOIST.

No. 917,688.

Specification of Letters Patent.

Patented April 6, 1909.

Application filed September 24, 1908. Serial No. 454,630.

To all whom it may concern:

Be it known that I, BRUCE WALTER, a citizen of the United States, residing at Pittsburg, in the State of Pennsylvania, have invented certain new and useful Improvements in Pneumatic Hoists, of which the following is a specification.

My invention relates to lifts or hoists such as are employed in ice factories for lifting the cans from the brine; its primary objects being to design the hoist so as to take up less head room, to increase the working distance of the actuating element, and to generally simplify and increase the certainty and efficiency of operation of such devices.

I have illustrated the invention in one form in the accompanying drawing, wherein—

Figure 1 is a side elevation and a central section of the actuating cylinder, and Fig. 2 is a front elevation of the cylinder, at right angles to that of Fig. 1.

My invention is designed for use in any situation where it is necessary to hoist a weight a greater distance than the movement of the actuating means, but is particularly useful in ice making plants and the like on account of its compactness and simplicity and on account of its speed and uniformity of operation. Thus as illustrated, 4 represents an I-beam used for a track support; which beam may of course also be mounted to move laterally on another beam, as will be understood. On the beam 4 and supported by trolleys 5 in a frame 6 attached thereto, I mount a cylinder 7 containing a piston 8 to be driven by air or other fluid admitted through opening 7^a. The piston rod 9 engages the central pivot of one pair of a series of lazy-tong levers 10, which by the complementary series of levers 11 is attached to a beam 14 to which by chains 15 any convenient kind of clamps are appended to engage the ice cans 16 and lift them out of a brine tank 17. The final links of the

series of levers 10, 11, are formed as yokes 12 which are pivoted on arbors 13 on the cylinder 7, as shown in Fig. 2. The links may be altered in length by the series of holes 18, so as to alter the distance of travel. It will be observed that as the piston rises the beam 14 will rise much faster, and according to the number of pairs of links any desired speed can be attained with the same actuating cylinder. In lifting the cans out of brine it is highly important also to have this steady motion without jerks and jars such as would be occasioned by the movements of cranes.

The device takes up very little head room, and also for other reasons which will be apparent to those familiar with the art, is very efficient for its purposes.

Having thus described my invention and illustrated its use, what I claim as new and desire to secure by Letters Patent, is the following:

1. A hoist and carrier comprising the combination of an overhead track, a pneumatic cylinder directly mounted to travel thereon, and a set of lazy tong levers having fulcrum points respectively attached directly to the cylinder and to the piston rod therefor, substantially as described.

2. A hoist and carrier comprising the combination of an overhead track, a fluid actuated cylinder provided with integral brackets and wheels thereon directly running on the track and a system of lazy tong levers having means for adjusting their length and attached for operation respectively to the cylinder and to its piston rod, substantially as described.

In testimony whereof I have hereunto signed my name in the presence of the two subscribed witnesses.

BRUCE WALTER.

Witnesses:

F. W. H. CLAY,
CHAS. S. LEFLEY.