No. 707,660. Patented Aug. 26, 1902.

E. H. WATLINGTON.

HOISTING APPARATUS.

(Application filed Jan. 13, 1902.)

(No Model.)

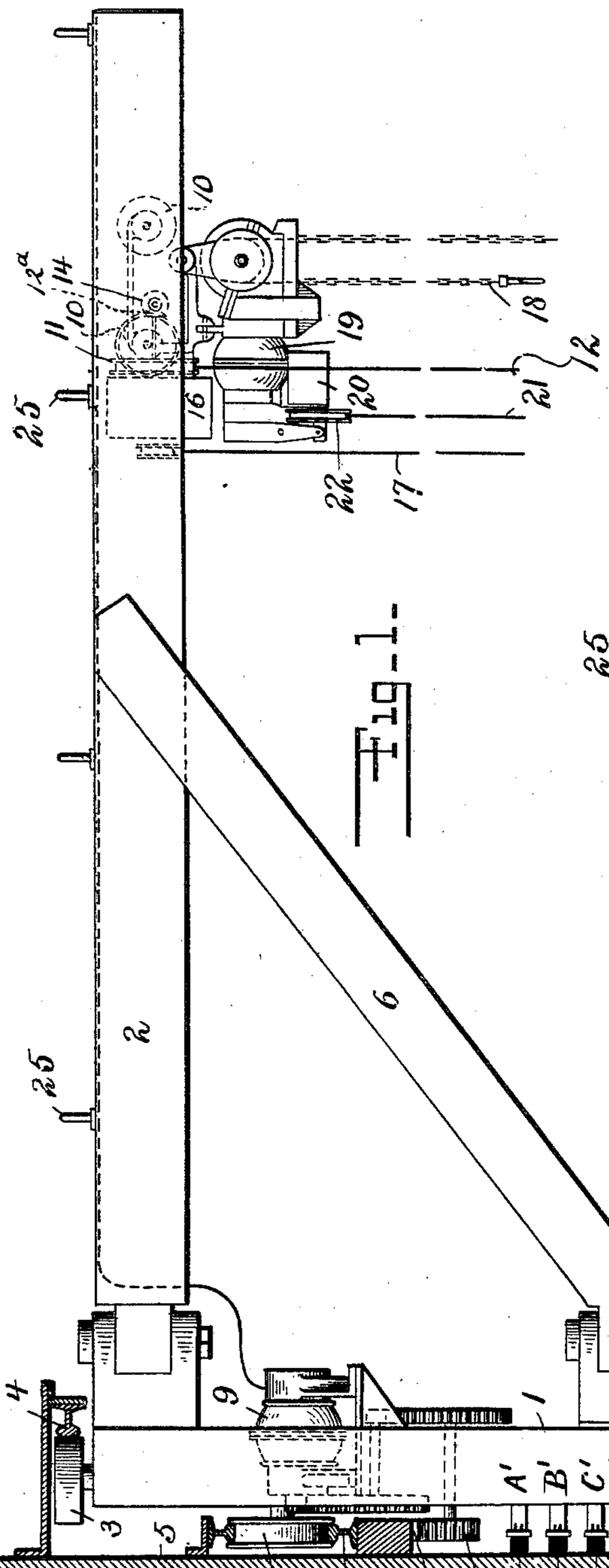

FIG. 1.

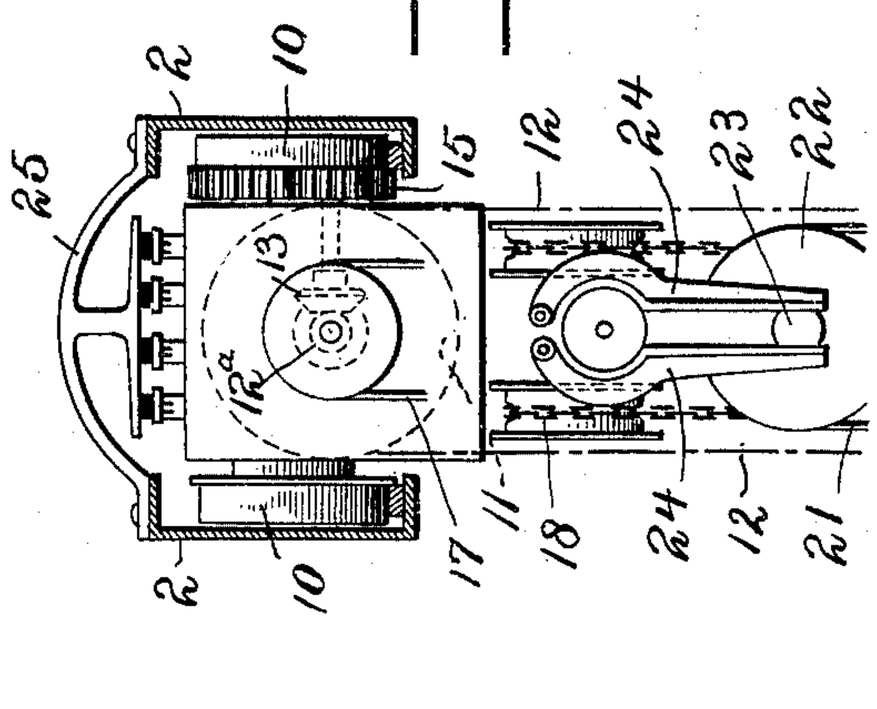

FIG. 2.

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EDGAR H. WATLINGTON, OF RIDGEWOOD, NEW JERSEY, ASSIGNOR TO SPRAGUE ELECTRIC COMPANY, OF NEW YORK, N. Y., A CORPORATION OF NEW JERSEY.

HOISTING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 707,660, dated August 26, 1902.

Application filed January 13, 1902. Serial No. 89,450. (No model.)

To all whom it may concern:

Be it known that I, EDGAR H. WATLINGTON, a citizen of the United States, residing at Ridgewood, New Jersey, have invented certain new and useful Improvements in Hoisting Apparatus, of which the following is a full, clear, and exact description.

My invention relates to cranes or hoists.

Among the main objects of my invention is to provide a means whereby the crane may be moved bodily or the hoisting apparatus moved relatively to the body of the crane and so arrange the various controllers by which the various movements are effected that they are all within easy reach of a single operator.

Incidentally other objects are attained by the novel and useful construction and arrangement of the parts hereinafter fully described.

In the drawings, Figure 1 is a conventional view, in side elevation, of my improved apparatus. Fig. 2 is a relatively enlarged end view of the hoisting apparatus, taken from the left as appearing in Fig. 1, a portion of the crane directly adjacent thereto being shown in section.

In the drawings, 1 is a carrier.

2 is a boom, which in this particular construction is hinged thereto and projects outwardly therefrom. The carrier 1 is provided with suitable rolls or wheels 3 3, which move upon suitable tracks 4 on a supporting-wall 5, arranged to properly support the carrier and permit it to be moved back and forth, as desired.

6 is a suitable bracket or arm projecting from the lower part of the carrier upwardly to the boom 2 and affording an additional support or brace for the same.

7 is a toothed rack carried by the wall 5.

8 is a gear-wheel meshing therewith and revolved in any suitable way by a motor 9. In the drawings reducing-gears are interposed between the motor and the said gear 8. The construction and arrangement of reducing-gears need not be specifically described, since it is well known and no invention is claimed of the particular form thereof. The direction of rotation of the armature of the motor 9 determines the direction of travel of the crane 1 on the tracks 4. The boom 2 is preferably constructed of angle-iron, as best shown in Fig. 2, in which it will be seen that the boom is made up of two channeled-iron members placed so that the channels face each other. The lower flanges of these members may serve as tracks for wheels 10 10 or separate tracks may be added thereto. The wheels 10 support a truck carrying a hoisting apparatus. The truck may move back and forth upon the boom 2. One convenient means for moving said truck comprises a wheel 11, carrying an endless cord, belt, or chain 12, which may be manually controlled. The wheel 11 is mounted on the truck and rotates a bevel-gear 12^a, meshing with a bevel-gear 13, in turn rotating a spur-gear 14, meshing with spur-gear 15 upon one of the wheels 10. By turning the wheel 11 in one direction or the other the hoisting apparatus may be moved to any desired position on the boom 2.

16 is a controller of any well-known and desirable type for motor 9, said controller being carried by the truck carrying the hoisting apparatus.

17 is a cord, chain, or belt whereby the controller 16 may be operated. By operating the controller 16 the position of the carrier 1 relatively to the track 4 may be varied at will.

18 is a hoisting-chain passing over a suitable drum, which may be revolved by motor 19. 20 is a controller of any well-known and desirable type therefor, and 21 a cord, belt, or chain whereby the controller 20 may be operated.

22 is a drum or pulley to which the operating-cord 21 may be attached. The cords, belts, or chains 17, 21, and 12 are located within easy reach of a single operator standing underneath the truck. A single operator may attach the hoisting-chain to the load and control the apparatus so as to lift or transport the same to any desired point without leaving the immediate vicinity of said load, a feature of great advantage and desirability.

One of the many convenient means for leading the circuits to the motors is illustrated, in which it will be seen that A, B, C,

and D are conductors conveniently placed adjacent to the carrier 1, and A′ B′ C′ D′ are brushes or contact devices adapted to sweep along the aforesaid conductors, respectively, as the carrier 1 is moved to and fro. The circuits may be led from the brushes A′ B′ C′ D′ to the motors 9 and 19 and the controllers therefor. A substantially similar arrangement of conductors and brushes may be provided upon the boom 2 and the truck carrying the hoisting apparatus. This arrangement is best shown in Fig. 2. The conductors may run longitudinally of the boom 2 and may be supported on suitable brackets 25. Contact-brushes corresponding to the brushes A′ B′ C′ D′ may be carried by the truck in such manner as to preserve contact with said conductors.

What I claim is—

1. In a device of the character described, a carrier, a boom carried thereby, a truck riding upon said boom, a motor carried by said carrier, another motor carried by said truck, means to shift the position of the truck upon said boom said means being carried by said truck, controllers for said motor said controllers being also carried by said truck and depending operating-cords for said controllers and for said shifting means.

2. In a device of the character described, a traveling carrier, a motor mounted thereon for operating the same, a boom carried by said carrier, a truck riding upon said boom, a motor carried by said truck for operating said truck, a hoisting apparatus carried by said truck, mechanism for operating said hoisting apparatus, controllers carried by said truck for operating the said motors and the said hoisting operating mechanism, and depending operating-cords for said controllers and said hoisting mechanism, substantially as described.

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