Feb. 16, 1926. 1,573,778

R. H. BEAUMONT

TAIL BLOCK EQUIPMENT

Filed Nov. 6, 1925 2 Sheets-Sheet 1

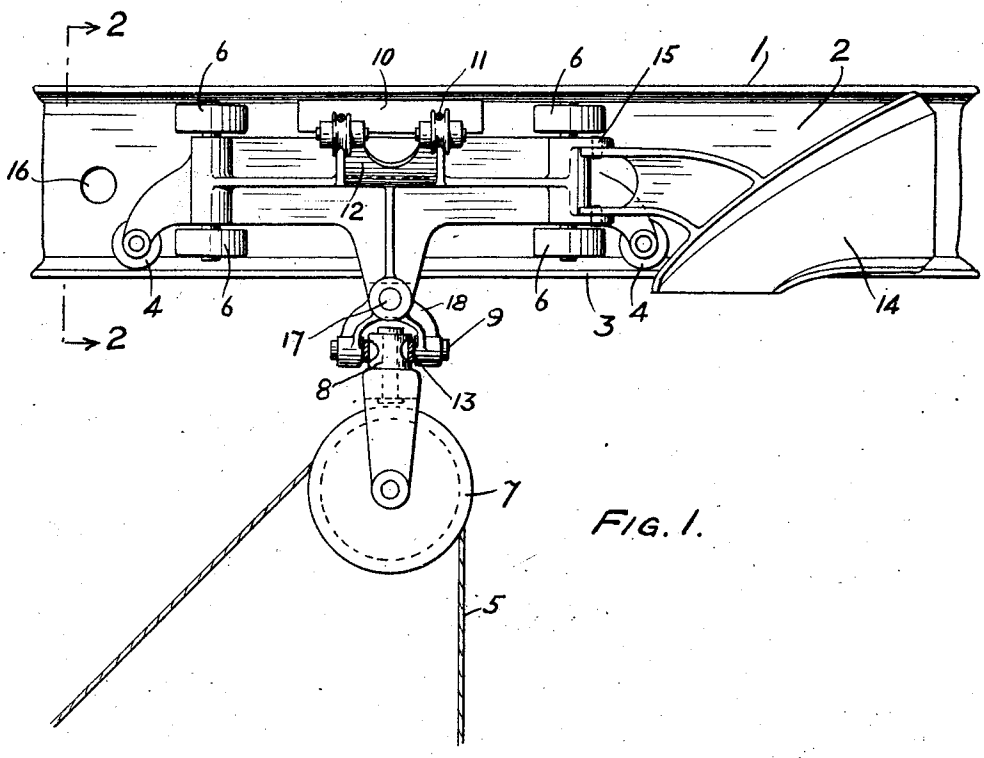


FIG. 1.

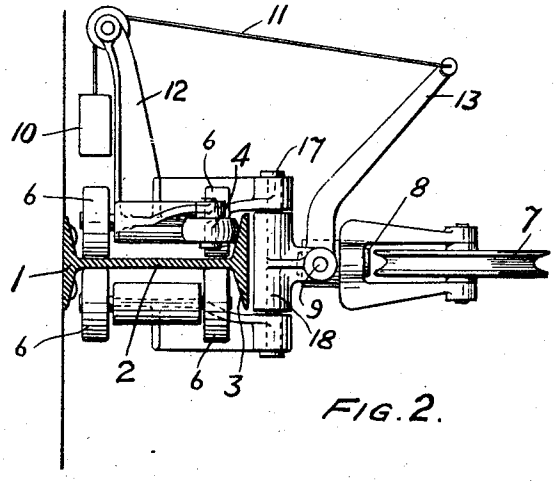


FIG. 2.

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WITNESS:

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TAIL BLOCK EQUIPMENT

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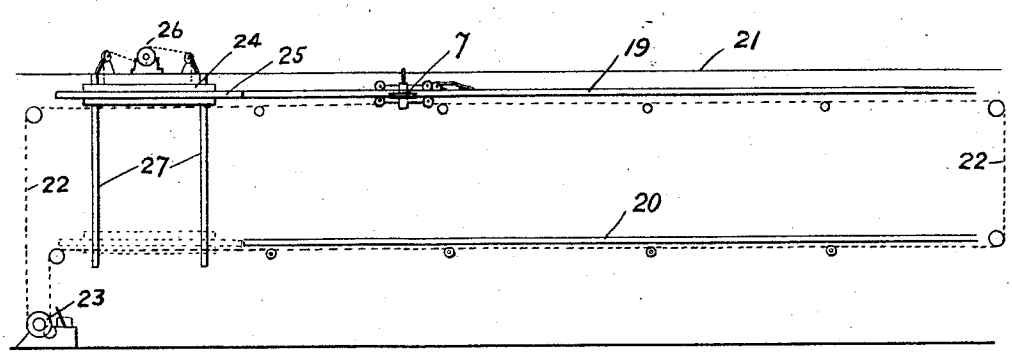


FIG. 3.

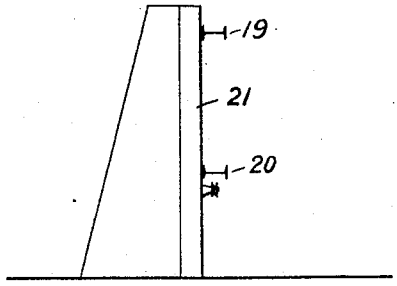


FIG. 4.

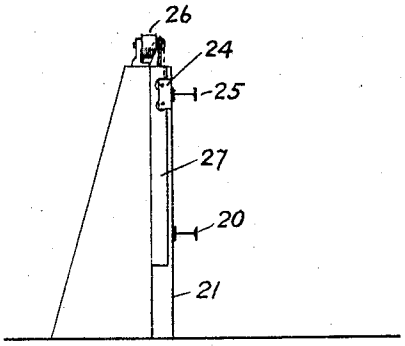


FIG. 5.

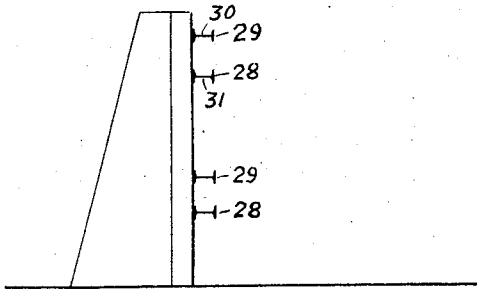


FIG. 6.

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Patented Feb. 16, 1926. 1,573,778

UNITED STATES PATENT OFFICE.

ROBERT H. BEAUMONT, OF RADNOR, PENNSYLVANIA, ASSIGNOR TO R. H. BEAUMONT CO., OF PHILADELPHIA, PENNSYLVANIA, A CORPORATION OF PENNSYLVANIA.

TAILBLOCK EQUIPMENT.

Application filed November 6, 1925. Serial No. 67,286.

To all whom it may concern:

Be it known that I, ROBERT H. BEAUMONT, a citizen of the United States, residing at Radnor, in the county of Montgomery and State of Pennsylvania, have invented a new and useful Tailblock Equipment, of which the following is a specification.

The principal object of the present invention is to provide drag scraper tail block equipment for walled storage yards such that the drag scraper can be used for storing in a high pile and close to or up against a wall and for satisfactorily taking out stored material.

Other objects of the invention will appear from the following description at the end of which the invention will be claimed.

In the following description reference will be made to the accompanying drawings illustrating embodiments of the invention and in which—

Figure 1 is a top or plan view partly in section of tail block equipment embodying features of the invention.

Fig. 2 is a transverse sectional view taken on the line 2—2 of Fig. 1.

Fig. 3 is a diagrammatic view illustrating in elevation features of the invention.

Fig. 4 is a view of the righthand end of the structure shown in Fig. 3.

Fig. 5 is an elevational view of the left-hand end of the structure shown in Fig. 3, and

Fig. 6 is a view illustrating a modification.

Referring more particularly to Figs. 1 and 2, 1 is a rail structure having a generally horizontal web portion 2 arranged above the ground level and having a generally vertical flange portion 3 at the free edge of the web portion 2. There is a carriage having as shown two generally horizontal wheels 4 adapted to run on the flange portion 3 to resist the pull of the drag scraper cable 5 and having as shown eight generally vertical wheels 6 adapted to run on a web portion 2. 7 is a sheave swiveled at 8 and 9 and balanced and carried by the carriage. As shown the sheave is balanced by a counterweight 10 of which the cord 11 runs over the pulley on an arm 12 rising from the carriage and is attached to an arm 13 connected with the shank of the sheave. The counterweight gear is shown in duplicate. 14 is a plow or scraper having hinged connection as at 15 with the carriage and its purpose will be presently described. 16 is a drainage hole or opening provided in the flange 2. The post 17 is one means for connecting the top and bottom sections of the carriage and it horizontally supports the bracket 18 which provides an element of the swivel 9. Referring to Figs. 3 and 4, there are two rail structures 19 and 20 arranged above the ground at different levels and carried by an element 21 which may be regarded as the side wall of a building or any variety of side wall enclosing the storage yard. When the carriage is on the high level rail structure 19, as shown in Fig. 3, the equipment is arranged for piling material in a high pile for storage within the enclosure and close up to the side wall, and when the carriage is on the low level rail structure 20, the equipment is adapted to take the material out of storage. It may be said that when the sheave and carriage are on the top rail structure the scraper can not reach down far enough to clean out storage. The scraper referred to is not shown because it is too well understood to require illustrating or description although it may be said that it is operated by the cable 5, at least in part. The horizontal position of the sheave 7 on either of the rail structures is adjusted and controlled by the cable 22 running on the guide rolls beneath the track structures, connected with the carriage, and operated, for example, by a drum 23 to move the carriage in either direction on either rail structure and to hold it in any desired position. 24 is a lift carrying a section 25 of the rail structure onto which the carriage may run. By means of suitable hoisting machinery 26 the lift with the carriage on the rail section 25 can be raised and lowered on the guides 27 into the positions shown in dotted lines and in full lines in Fig. 3, suitable connection with and attachment to and detachment from the cable 22 being made. It will of course be understood that the cable 22 can be moved by the machinery 23 in either direction. The plow 14 serves to remove material from the upper surface of the web portion 2, it being understood that the material, which may well be coal, is piled over and on the lower rail structure. Referring to Fig. 6, the construction and operation are the same as have been described except that the rail structures comprise two elements 28 and 29 instead of the single element, and it is the top face or web 30 of the element 29 and the

bottom face or flange 31 of the element 28 upon which the upper and lower sets of vertical rollers 6 run. In this connection it may be said that the upper and lower sets of rollers 6 provide for proper support of the carriage upon the rail structure and prevent accidental detachment of the carriage which might occur if the center of gravity of the structure should fall outside of the rail structure.

Reference has been made to drag scraper equipment merely for the sake of explanation, and the device claimed might well be termed cable bight sheave equipment and applied to any use of which it is capable.

It will be obvious to those skilled in the art to which the invention relates that modifications may be made in details of construction and arrangement and matters of mere form without departing from the spirit of the invention which is not limited as to such matters or otherwise than the prior art and the appended claims may require.

I claim:

1. Tail block equipment comprising a rail structure arranged above the ground and having a generally horizontal portion and a generally vertical portion, a carriage having generally horizontal wheels arranged to run on the generally vertical portion to resist cable pull and having generally vertical wheels adapted to run on the generally horizontal portion, and a balanced swivel sheave carried by the carriage and projecting laterally therefrom.

2. Tail block equipment for walled storage yards comprising rail structures arranged at different levels above the ground level and in proximity with a storage wall, a wheeled carriage adapted to run on said rail structures and to resist cable pull, and a balanced swivel sheave carried by the carriage and projecting laterally therefrom.

3. Tail block equipment for walled storage yards comprising rail structures arranged at different levels above the ground level and in proximity with a storage wall, a wheeled carriage adapted to run on said rail structures and to resist cable pull, a balanced swivel sheave carried by the carriage and projecting laterally therefrom, a carriage operating cable having one of its reaches arranged along each rail structure, and machinery for operating the cable.

4. Tail block equipment for walled storage yards comprising rail structures arranged at different levels above the ground level and in proximity with a storage wall, a wheeled carriage adapted to run on said rail structures and to resist cable pull, a balanced swivel sheave carried by the carriage and projecting laterally therefrom, and a lift provided with a rail structure segment for transferring the carriage from one to the other of the rail structures.

ROBERT H. BEAUMONT.