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APPLICATION FILED OCT. 3, 1910.

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2 SHEETS—SHEET 1.

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UNITED STATES PATENT OFFICE.

JOHN E. WRIGHT, OF CHICAGO, ILLINOIS.

DRAG.

983,594. Specification of Letters Patent. Patented Feb. 7, 1911.

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To all whom it may concern:

Be it known that I, JOHN E. WRIGHT, a citizen of the United States, and a resident of the city of Chicago, county of Cook, and State of Illinois, have invented certain new and useful Improvements in Drags, of which the following is a specification.

This invention relates to drags or road scrapers and has for its object the production of a device of this character which will be capable of various adjustments, and which will be adapted automatically to conform with the transverse curvature of the surface of the road acted upon.

A further object is the provision of a scraper as mentioned, which will be of durable and economical construction and efficient in operation.

Other objects will appear hereinafter.

With these objects in view my invention consists in certain improvements in road drags or scrapers characterized as above mentioned and in certain details of construction and arrangements of parts, all as will be hereinafter more fully described and particularly pointed out in the appended claims.

My invention will be best understood by reference to the accompanying drawings forming a part of this specification, and in which,

Figure 1 is a perspective view of a road scraper embodying the preferred form of my invention, Fig. 2 is an enlarged vertical transverse section taken on substantially the plane *x* of Fig. 1, and Fig. 3 is a vertical longitudinal section taken on substantially line *y*—*y* of Fig. 2.

The preferred form of my invention as illustrated in the drawings, comprises a rectangular frame or body 1 which is of a sectional nature, the same being comprised of similar U-shaped end sections 2 and 3, and intermediate sections or bars 4, the extremities of which are pivotally secured to the extremities of said end sections by means of longitudinally extending pivotal rods 5 whose extremities extend through the overlapping ends of said sections. Provided at the ends of the frame 1 are longitudinally extending bars 6, the respective extremities of which are rigidly secured to the parallelly extending portions of the frame sections 2 and 3. Said bars 6 are strengthened midway their extremities by the angular reinforcements 7. Also provided in said frame midway between the bars 6, are two parallelly extending spaced bars 8, the respective extremities of which are rigidly secured to the frame sections 4.

Arranged beneath the frame 1 are the parallelly extending spaced scraper blades which are of sectional construction, each being comprised of a plurality of pivotally connected sections 9, the pivotal points 10 in said blades being coplanar with the corresponding pivotal points in the frame 1, as clearly shown in Fig. 2. Said blades are held in spaced relation by means of links 11 which extend between and are pivotally secured at their extremities to adjacent sections 9 as clearly shown in Fig. 3. To the endmost of the sections 9 at the rearward sides thereof are rigidly secured the lower flared ends of rocker arms 12, the upper ends of said rocker arms being pivotally connected as indicated, to the frame bars 6. To the rearward sides of the central sections 9 are rigidly secured blades 13, the upwardly extending bifurcated ends 13′ thereof, the latter constituting rocker arms, being pivotally connected as indicated, to the frame bars 8. The upper extremities of the arms 13′ in longitudinal alinement are pivotally secured to connecting bars 14. Arranged at the rearward end of the frame 1 is an operating lever 15, the lower bifurcated extremity thereof being pivotally secured to said frame at the point of pivotal connection therewith of the rearmost rocker arms 13′, said lever being also connected to the rearward extremities of the bars 14 at the points of pivotal connection therewith of the upper extremities of the rearmost of the rocker arms 13′. Said lever, as will be observed, is of angular form, the upper end thereof being bent rearwardly so that the operator in adjusting the same, will not need to stand upon the device, it being clear that with a lever of the design shown, the operator in operating the same, may do so from a position rearward of the device. An ordinary hand operable pawl mechanism 16 is adapted to coöperate with the segmental rack 17 which is rigidly secured in frame 1 to rigidly hold said lever 15 at any angular position to which it may be adjusted. The arrangement is such as will be observed that by rocking said lever any angular disposition of the scraper blades relative to the surface acted upon or to the frame 1, may be effected, the pawl mechanism 16 serving to maintain said blades in any position of adjustment. In

order to normally hold said blades in vertical position I provide the diagonally disposed tension springs 18. The extremities of said springs are secured as clearly indicated in Fig. 1, to points of pivotal connection of the foremost and rearmost of the rocker arms 13′ so that said springs will oppose each other serving to normally yieldingly maintain the blades 9 as just mentioned, in substantially vertical position. This provision is made to facilitate the manual adjustment of the lever 15, and serves to cushion any jerks or jars to the frame 1 in adjusting the scraper blades, thereby alleviating the wear upon the horses.

Provided upon the front portion of the frame 1 adjacent the respective extremities thereof, are eyes 19, and formed at the forward extremities of the bars 5 are similar eyes 20. Connected at its rearward extremity of one of the eyes 19 is a bar 21, and similarly connected to the other of said eyes 19 is a longitudinal adjustable bar 22, the forward extremities of said bars 21 and 22 being secured to an eye or loop 23. Longitudinally adjustable chains 24 extend from said eye 23 to the eyes 20 as indicated in Fig. 1. With the arrangement as shown, it will be observed that, in use, the device will be drawn in an angularly disposed position relative to the line of travel, and further with this provision, by simply adjusting the length of the draft bar 22 and the draft chains 24 any desired angular adjustment of the blades may be readily effected.

A device of the construction as set forth is durable and economical, and is of highest efficiency in operation.

While I have shown what I deem to be the preferred form of my device I do not wish to be limited thereto as there might be various changes made in details of construction and the arrangements of parts described without departing from the spirit of the invention as comprehended within the scope of the appended claims.

Having described my invention what I claim as new and desire to secure by Letters Patent is:

1. In a device of the class described, the combination of a sectional body frame consisting of a central section and side sections pivoted to each side of said central section; a scraper blade mounted on said sections, said scraper blades being pivotally connected to said frame section to swing vertically and longitudinally relatively to the corresponding frame section, substantially as described.

2. In a device of the class described, the combination of a body frame; scraper blades arranged beneath said frame and rockingly connected thereto; means for adjusting the angular disposition of said blades relative to said frame; and means for normally yieldingly maintaining said blades in substantially vertically disposed positions, substantially as described.

3. In a device of the class described, the combination of a body frame; scraper blades arranged beneath said frame and rockingly connected thereto; means for adjusting the angular disposition of said blades relative to said frame; opposed tension springs arranged to normally maintain said blades in substantially vertically disposed positions, substantially as described.

4. In a device of the class described, the combination of a sectional body frame; sectional scraper blades arranged beneath said frame and rockingly connected thereto; means for adjusting the angular disposition of said blades relative to said frame; and means for normally yieldingly maintaining said blades in substantially vertically disposed positions, substantially as described.

5. In a device of the class described, the combination of a sectional body frame; sectional scraper blades arranged beneath said frame and rockingly connected thereto; means for adjusting the angular disposition of said blades relative to said frame; and opposing tension springs arranged to normally maintain said blades in substantially vertically disposed positions, substantially as described.

6. In a device of the class described, the combination of a sectional body frame; sectional scraper blades arranged beneath said frame and rockingly connected thereto; an operative connection between said blades to cause them to rock in unison; a pivoted lever for adjusting the angular disposition of said blades relative to said frame; and means for normally yieldingly maintaining said blades in substantially vertically disposed positions, substantially as described.

7. In a device of the class described, the combination of a sectional body frame; sectional scraper blades arranged beneath said frame; rocker arms pivotally connected to said frame and rigidly connected to said blades; means connecting the upper extended ends of certain of said rocker arms causing said blades to rock in unison; and tension springs coöperating with said rocker arms for normally maintaining said blades in substantially vertically disposed positions, substantially as described.

8. In a device of the class described, the combination of a sectional body frame; sectional scraper blades arranged beneath said frame; rocker arms pivotally connected to said frame and rigidly connected to said blades; means connecting the upper extended ends of certain of said rocker arms for causing said blades to rock in unison; tension springs coöperating with said rocker arms for normally maintaining said blades in substantially vertically disposed position;

and a rearwardly disposed lever pivotally secured to said frame adjacent the rearward end thereof and operatively connected with said rocker arms for adjusting the angular disposition of said blades, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JOHN E. WRIGHT.

Witnesses:
HELEN F. LILLIS,
JOSHUA R. H. POTTS.