J. A. PEEK. Scraper.

Patented Aug. 12, 1879. No. 218,566. Fig. 1. Fig.2. 0 MINI Language Committee INVENTOR: ta. Peek Munto Afenry N. Miller-6. Sedgwick

## UNITED STATES PATENT OFFICE.

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## IMPROVEMENT IN SCRAPERS.

Specification forming part of Letters Patent No. 218,566, dated August 12, 1879; application filed April 7, 1879.

To all whom it may concern:

Be it known that I, JAMES ALFRED PEEK, of Beloit, in the county of Mitchell and State of Kansas, have invented a new and useful Improvement in Dirt-Scrapers, of which the following is a specification.

Figure 1 is a perspective view of my improved scraper, part being broken away to show the construction. Fig. 2 is a side view of the same, part being broken away to show the construction. Fig. 3 is a detail top view of toothed bit or blade. Fig. 4 is a detail

view of the smooth-edged bit or blade. Similar letters of reference indicate corre-

sponding parts.

The object of this invention is to furnish an improved scraper for use upon railroads, ordinary roads, and in other places where grading is to be done, or soil moved from place to place, which shall be simple in construction and convenient and effective in use, so that the work may be done rapidly and with com- | their angles to the draw-bars D by the bolts paratively little labor.

The invention consists in the combination of the wheels, the journals and bars, the drawbars and bail, the brace-bail and rods, the tongue, the rod or bolt, the arched bars, the bent levers, provided with the pawls, springs, connecting-rods, and small bent levers, the cross-bar, and the catch with each other and with the scraper, as hereinafter fully described.

A are the wheels, which revolve upon journals B, attached at their inner ends to the middle parts of short bars C. The lower ends of the bars C are attached to the draw-bars D, and their upper ends are attached to the arched bars E, the ends of which are attached to the said draw-bars D.

To the draw-bars D and the arched bars E are attached the ends of the upwardly-inclined brace-bail F. To the middle part of the brace-bail F is attached the rear end of the tongue G, which is strengthened in position by the brace-rods H.

The forward ends of the brace-rods H are attached to the tongue G, and their rear ends are attached to the draw-bars D at a little distance from their forward ends. The tongue G is also connected by a vertical rod or long bolt, I, with the middle part of the draw-bail

and the ends of which are attached to the forward ends of the draw-bars D. By this construction the horses will be brought close back to their work, so that their strength may be

applied to the best advantage.

K is the body of the scraper, which is made with a detachable bit or blade, L, the ends of which are secured to the lower edges of the forward ends of the sides of the scraper K. The middle part of the bit or blade L is strengthened in position by the bar or plate l', the forward end of which is bolted to the said bit or blade L, and its rear end is bolted to the bottom of the said scraper K.

The bit L may be made with a smooth edge, as shown in Figs. 1, 2, and 4, for working in loose soil, or with a toothed edge, as shown in Fig. 3, for working in a hard or gravelly soil.

The scraper K is pivoted at the forward upper parts of its sides to the ends of the short arms of the levers M, which are pivoted at or rivets that secure the lower ends of the bars C to the said draw-bars D. The levers M are provided with pawls N, to engage with notches in the convex edges of the arched bars E, and are held against the said edges by springs O, also attached to the said levers M.

To the pawls N are attached the inner ends of the rods P, which extend out along the sides of the levers M, and their outer ends are pivoted to the ends of the short arms of the small bent levers Q. The levers Q are pivoted at their angles to the levers M, so that they can be operated by the hands that grasp the levers M without letting go the said levers M.

The levers M are connected near their outer ends by a cross-bar, R, the middle part of which is bent forward, or is made with a forward offset, to take it out of the way of the person operating the scraper, and to bring it into such a position that it may be caught and held by the catch S, attached to the upper part of the back of the scraper K.

To the scraper K, near its upper rear corners, are attached the handles T, by which it

is guided and held.

In using the scraper the levers Mare raised into an erect position, which lowers the scraper J, to the center of which the draft is applied, I to the ground, and it is held and guided by

the handles T until filled. When the scraper is full the man stands upon the back end of the scraper and pulls upon the levers M, which throws the scraper out of the ground. The levers M are then pulled down until their crossbar Reatches upon the catch S, and the scraper will be raised from the ground and held upon a level, so that the dirt can be readily carried to the place where it is to be deposited.

When the load is to be dumped, the levers M are raised until the edge of the bit L strikes the ground; then release the said levers M, and the scraper K will turn over and rest upon the

brace-bail F.

When the scraper is to be lowered, the levers M are raised a little, which causes the as herein shown and described. scraper to be unbalanced, and it turns back until the catch S catches upon the cross bar R, and it may then be carried in the same position as when loaded; and by disengaging the catch S with the foot and raising the le-

vers M the various parts will be in the position first described, and the scraper may be again loaded in the manner hereinbefore described.

Having thus described my invention, I claim as new and desire to secure by Letters

Patent—

The combination of the wheels A, the journals and bars BC, the draw-bars and bail D J, the brace-bail and rods F H, the tongue G, the rod or bolt I, the arched bars E, the bent levers M, provided with the pawls, springs, connecting-rods, and small bent levers NOP Q, the cross-bar R, and the catch S with each other and with the scraper K, substantially

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Witnesses:

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