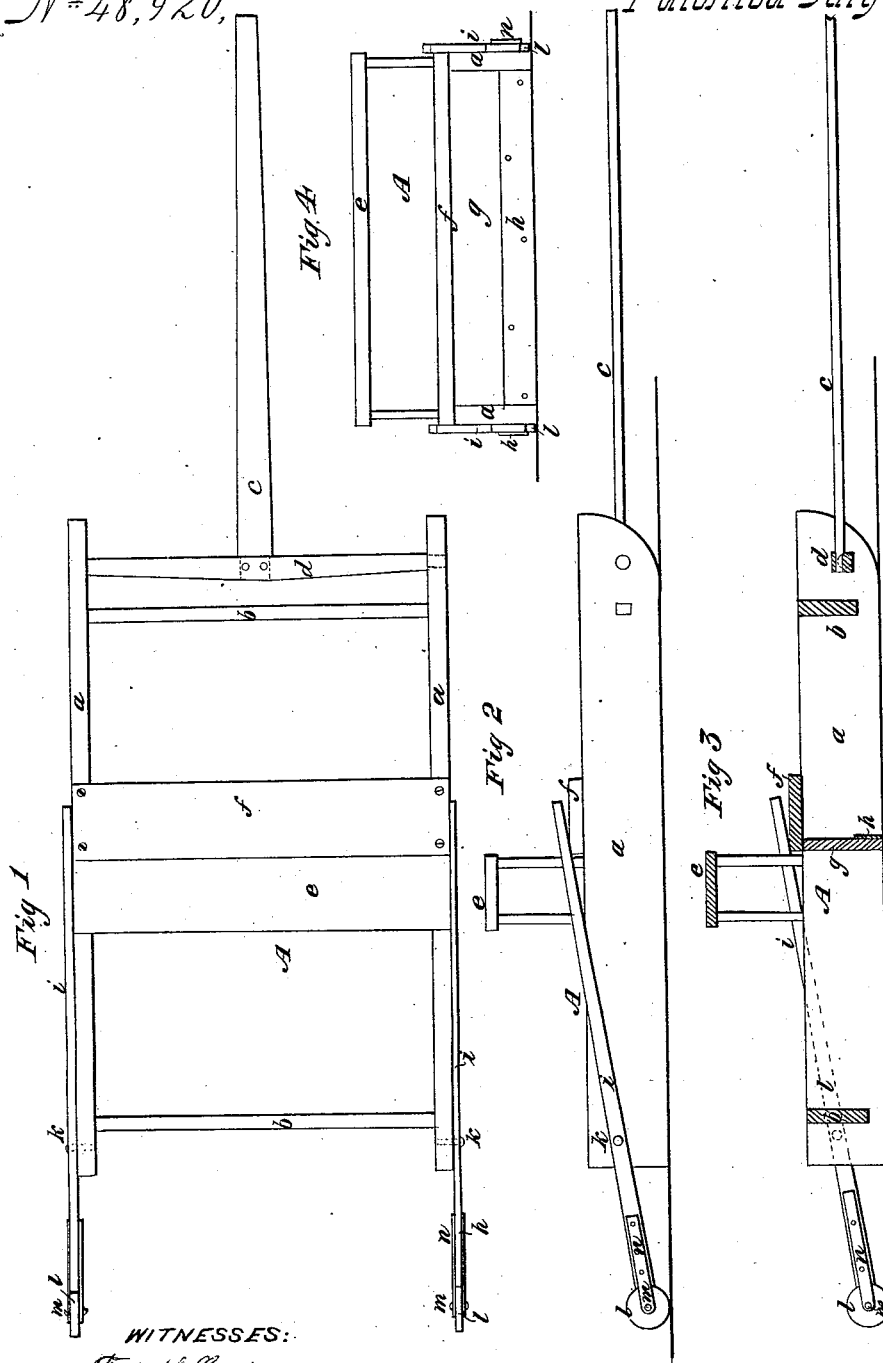


E. A. Field,

Road Scraper,

N^o 48,920,

Patented July 25, 1863.



UNITED STATES PATENT OFFICE.

EDWARD A. FIELD, OF SIDNEY, MAINE.

IMPROVEMENT IN ROAD-SCRAPERS.

Specification forming part of Letters Patent No. 48,920, dated July 25, 1865.

To all whom it may concern:

Be it known that I, EDWARD A. FIELD, of Sidney, of the county of Kennebec and State of Maine, have invented an Improved Road-Scraper; and I do hereby declare the same to be fully described in the following specification and represented in the accompanying drawings, of which—

Figure 1 is a top view, Fig. 2 a side elevation, Fig. 3 a longitudinal section, and Fig. 4 a transverse section, of it, the latter figure having its plane of section taken through the driver's foot-board, and being made to exhibit the scraping-bar, to be hereinafter described.

The main part of the scraper is like an ordinary ox-sled, it being shown at A in the drawings, *a a* being the runners, and *b b* the connecting-bars, and *c* the draft-tongue, projecting from a rocker-shaft, *d*, arranged to turn in both runners. The animals for drawing the scraper over a roadway are to be harnessed or yoked to the tongue preparatory to the scraper being put in use. A driver's seat, *e*, is raised on the runners, and they have a foot-board, *f*, extending from one to the other of them, and arranged with respect to the driver's seat in manner as shown in the drawings. Furthermore, there is underneath the foot-board and extending vertically therefrom and from one runner to the other a scraping board or bar, *g*, which has a plate of iron or steel, *h*, affixed to its front side and extended upward from its lower edge.

With the scraper so made I combine a pair of levers, *i i*, one of them being applied to the outer side of each of the runners by a fulcrum pin or screw, *k*, going through the lever and into the runner near its rear end. To the shorter arm of each of the levers I connect a wheel, *l*, which revolves freely on a pin, *m*, supported by two starts, *n n*, projecting from the lever, the whole being as shown in the drawings. The longer arm of each of the levers extends with-

in reach of the driver or a person while sitting on the seat *e*.

The wheels *l l* are useful auxiliaries to prevent friction and its effects, which would result were we to dispense with them and make use of the levers alone, or without such wheels and their connections with the said levers.

While the scraper is in the act of being drawn over the surface of a road for the purpose of effacing the ruts and rendering the road even and smoother, the bar *g* will gather or pile up on its front side more or less of the earth.

The object of the levers *i i* is to enable a person to raise either runner, so as to incline the lower edge of the scraping-bar more or less to the roadway, in order to drop portions of this pile of earth in hollow portions of the roadway—that is, so as to leave more of such earth therein than would be left by the scraper were it not to be so raised.

In using the scraper it is customary either for several persons to stand on the foot-board *f* or to have one attendant on it, with more or less of stones or weights placed on it.

It will readily be seen that were it not for the wheels the friction of the lever, when such lever may be borne upon the ground, would operate to materially retard or interfere with the tractile force. The wheels therefore, when employed with the levers, enable the draft animals to operate to better advantage than they could without them.

What I claim as my invention is—

The combination and arrangement of the levers *i i*, or the said levers and the wheels *l l*, with the road-scraper composed of the sled and the scraping-bar, or their equivalents, substantially as described.

EDWARD A. FIELD.

Witnesses:

R. H. EDDY,
F. P. HALE, Jr.