G. J. WEBER.

Walking-Scraper.

No. 220,741. Patented Oct. 21, 1879.

Fig. 1.

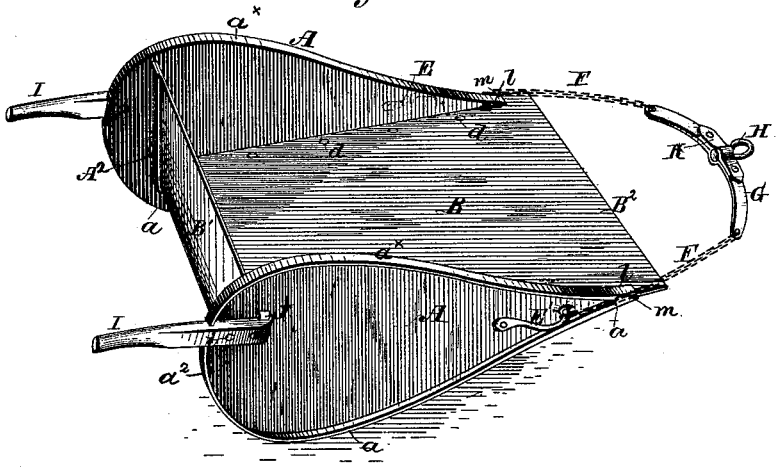

Fig. 2.

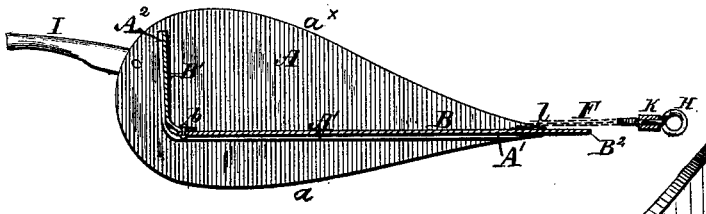

Fig. 3.

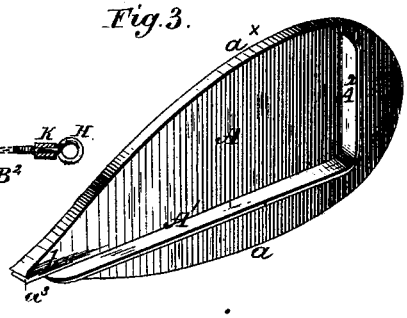

Fig. 4.

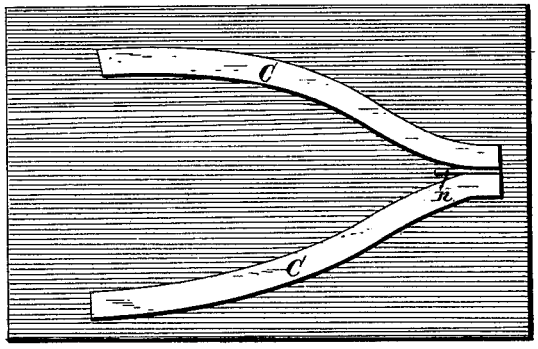

Fig. 5.

Attest

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UNITED STATES PATENT OFFICE.

GEORGE J. WEBER, OF BOONVILLE, MISSOURI.

IMPROVEMENT IN WALKING-SCRAPERS.

Specification forming part of Letters Patent No. **220,741**, dated October 21, 1879; application filed February 28, 1879.

To all whom it may concern:

Be it known that I, GEORGE J. WEBER, of Boonville, in the county of Cooper and State of Missouri, have invented a new and useful Improvement in Walking-Scrapers, of which the following is a specification.

The subject of this invention is a walking-scraper with cast sides having flanges for the attachment of the bottom and back plates at a distance from the edges of the sides, so as to provide projecting runners, which are cast with chilled flanged soles.

The invention further relates to confining and supporting the cutting-blade or forward edge of the bottom by means of lips projecting inwardly at the required distance above the aforesaid flanges, and by kerfs or notches in the forward angles of the sides, which receive the laterally-projecting extremities of the blade.

In the accompanying drawings, Figure 1 is a perspective view of my improved scraper. Fig. 2 is a vertical longitudinal section of the same. Fig. 3 is a perspective of one of the sides detached. Fig. 4 is a plan of the mold used to cast the scraper-side with chilled runner.

A A represent the sides of the scraper, which are cast in molds provided with chills C C, as illustrated in Fig. 4, so as to produce a hard surface on the edges $a\ a^{\times}$ of the sides, which constitute the runners of the scraper while at work, and also when it is inverted and moving over the ground without gathering earth.

The sides A A are cast with flanges $A^1\ A^2$, projecting from the inner face in position to receive the bottom B and back B^1, which are connected together by rivets *b*, and secured to the said flanges by rivets *d*, the lower or horizontal flanges, A^1, being at a sufficient distance above the bottom edges, $a\ a^{\times}$, of the sides to adapt the latter to act as runners and keep the scraper-bottom B up above the surface of the ground, with the exception, of course, of its front cutting edge or blade, B^2.

The runners $a\ a^{\times}$ are formed with projecting flanges extending backward nearly to the back piece and terminating in a light bead, a^2, of curved contour at the rear end. The said runners converge at the front end or point of the side.

The front of the bottom plate, B, of the scraper is supported and secured by means of two lips, *l l*, projecting inward from the side of the runner, near its point, at a sufficient height above the forward end of the flange A^1 to receive the bottom plate between them, and by lugs *m m*, extending laterally from the blade or front of the bottom and held in kerfs or notches a^3 prepared to receive them in the front angles of the sides A A.

The following is the mode of casting devised in order to insure hardness in said runners, which are subject to such excessive wear. The pattern is embedded in the sand, with the chills C C in contact with that portion of the runners that requires to be hard, and after the cope of the mold is lifted off said pattern is withdrawn, the core *n*, Fig. 4, is introduced, and when the mold is closed the molten metal is poured in.

It will be evident that I render my scraper exceedingly strong and durable, and at the same time reduce the cost of manufacture, by combining the sides, runners, and flanges in one casting, and securely riveting the connected bottom and back on the said flanges; also, that I insure light draft by placing the load on chilled-iron runners, which hold the bottom off the ground.

E E′ represent lugs or eyes fastened, by riveting or other suitable means, to the outer surface of the scraper-sides near the forward end, for the attachment of the draft-chains F F, which are connected in front by a transverse draw-bar, G, in the center of which is swiveled an eye, H, into which the double-tree clevis is to be hooked, said swivel-eye being secured by a clip, K, which is either riveted or welded to the draw-bar; or, instead of using a separate clip, K, I sometimes cast the draw-bar in one piece of metal.

I I are handles, fastened by lugs J and rivets *i*, or in any other usual or suitable manner.

I am aware that scrapers have before been made with runners extending below the bot-

tom, and also that strengthening plates or flanges projecting from the inner faces of the scraper ends have been used to support the scraper-bottom without runners. This, therefore, I do not claim.

Having thus described my invention, the following is what I claim as new therein and desire to secure by Letters Patent:

1. The scraper-sides A A, having inwardly-projecting flanges A^1 A^2 formed thereon intermediate to the edges to receive the bottom and back plates, B B^1, and also having flanged chilled runners a $a^\times$, substantially as set forth.

2. A scraper constructed with sides having flanges A^1, projecting lips l, and notches a^3, and with a bottom plate, B, and blade B^2, secured between the flanges A^1 and lips l, and within the notches or kerfs a^3, substantially as shown and described.

GEO. J. WEBER.

Witnesses:
W. G. PENDLETON,
W. F. HOWARD.