IMPROVED GANG PLOW.

The annexed engraving represents a novel gang plow recently patented by Mr. Francis Stanley, of Toronto, Canada, and possessing many improved features, which render it very effective.

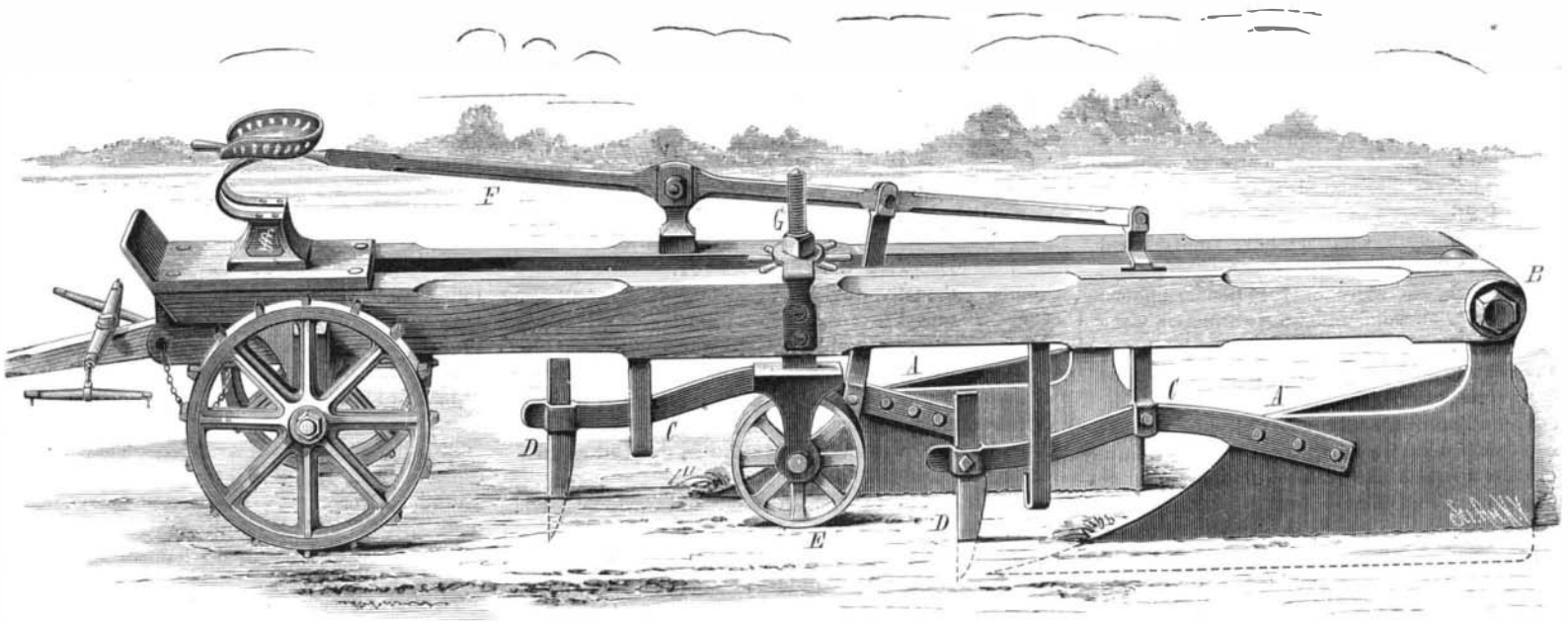
This plow may be readily adjusted so as to cut furrows of different depths, and the plowshares may be raised clear of the ground without detaching any part of the implement.

Two or more plowshares, A, are pivoted to the main frame, as at B, and are provided with arms, C, projecting forward and carrying colters, D. The arms, C, are connected by rods with the lever, F, fulcrumed on the top of the plow frame, and extending to the driver's seat. By means of this lever the plowshares may be easily raised or lowered by the driver without moving from his seat. The forward end of the plow frame is supported by two wheels turning on an axle secured to the frame. The middle of the frame is supported by an adjusting wheel, E, that has a threaded spindle, G, provided with an adjusting nut, by which the distance of the wheel from the main frame may be varied and the shares be consequently raised or lowered. If it is desired to use the plow as a light cultivator, the wheel, E, is removed, and a wheel of peculiar construction is inserted in its place.

The nut on the spindle, G, is then turned so as to raise the plowshares clear of the ground, when the barbed wheel inserted in place of the wheel, E, will act as an efficient cultivator.

The advantages possessed by the plow will be apparent to those familiar with the performance of this class of agricultural implements.

Further information may be obtained by addressing the inventor, Mr. Francis Stanley, care of J. Thompson, 364 Yonge St., Toronto, Canada.



STANLEY'S GANG PLOW.

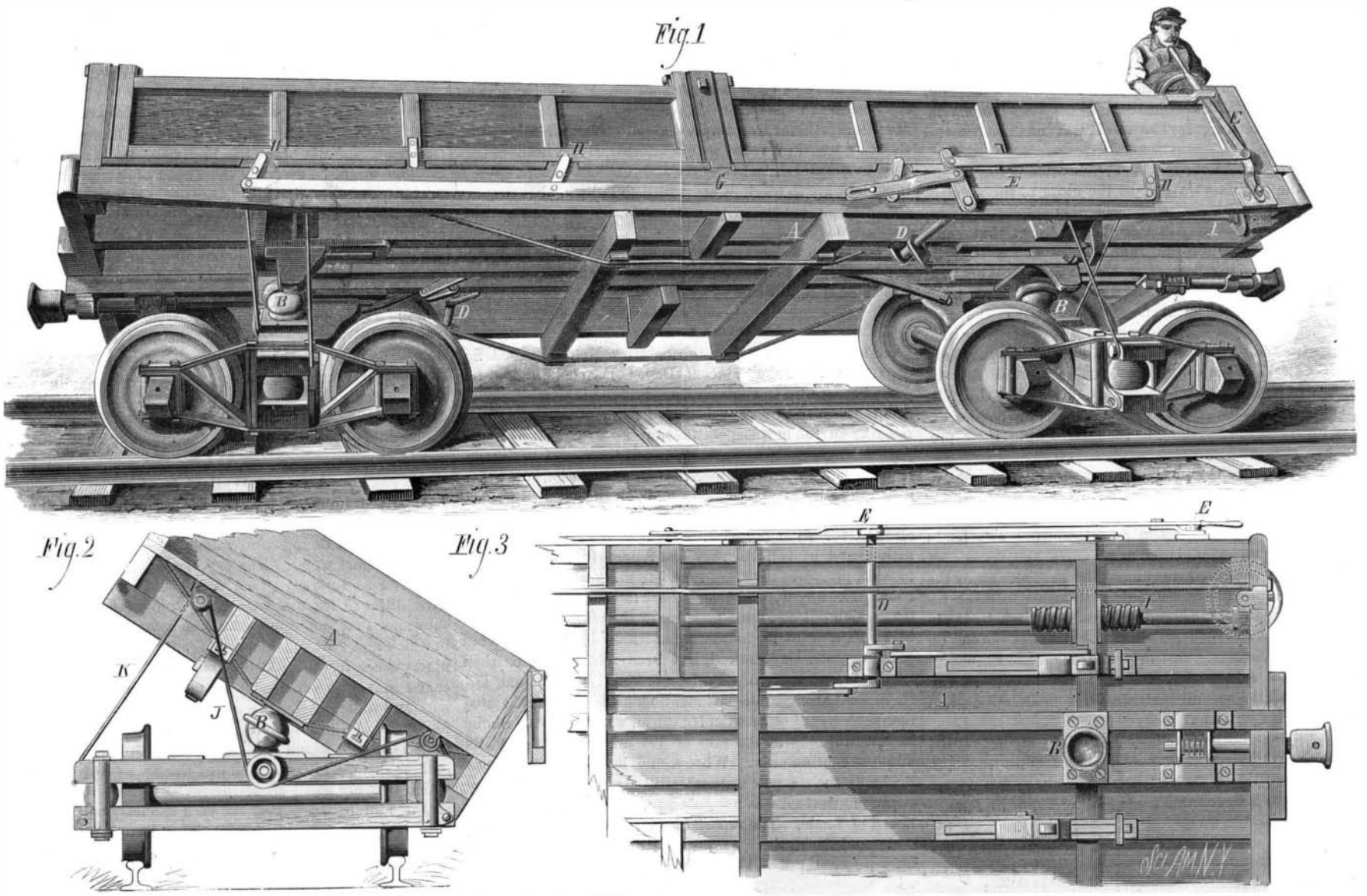
NEW DUMP CAR.

We present herewith engravings of an improved dumping car patented by Mr. Matthew Van Wormer, of Dayton, O., and now being introduced by the New England Car Company, of 48 Congress street, Boston, Mass. This car possesses many points of novelty which are covered by separate patents. It has been improved from time to time until, as it now stands, it appears to fulfill all the requirements. In its construction it is as simple as well can be when all of its functions are considered. It is a full sized gondola car, and capable of running with the same steadiness and security as the ordinary cars of the same size, while at the same time it is as perfectly manageable as a common dumping wagon.

Fig. 1 shows the entire car in perspective while being dumped; Fig. 2 is a vertical transverse section, taken just in front of one of the trucks; and Fig. 3 is an inverted plan view, showing the apparatus for moving the side bearings.

The car body, A, when in its normal position, is supported by ball and socket rockers, B, in the center, and by movable side bearings, C, on opposite sides of the rockers. The movable side bearings, C, are movable lengthwise of the car, and are connected in pairs with the rock shafts, D, so that the simultaneous movement of the two members of the pair on one side of the rockers is effected by the rocking of the shaft. This operation removes the side bearings of one side of the car and puts it in condition to be dumped. Upon the outer end of the rock shaft there is a lever, E, which is connected with the lever, F, at the side of the car near its end. The lever, E, is connected with a bar, G, extending along the side of the car, and pivoted to four or more lever catches, H, which hold the side doors of the car in position to retain the load. By this arrangement of the levers and their connections the car doors may be released and the supports, B, moved, making the car ready to dump. The apparatus for dumping the car is very simple and effective, and capable of holding the car platform at any desired angle. It consists of a long shaft, I, extending along the body of the car, and provided at one end with a worm wheel, which is engaged by a worm on a vertical shaft, extending upward through the platform of the car, and provided with a lever or wheel by which it may be turned.

Upon drums carried by the shaft, I, are two drums, upon each of which are wound two chains, J K. The chain, J, runs downward around a sheave on the truck timber, thence upward over a sheave on the car body, then downward to



THE NEW ENGLAND CAR COMPANY'S DUMP CAR