with a groove between them to admit the traveller to run in it. Likewise the mode of giving the machine an accelerated motion."

---

8. For a machine called a *Self-balanced Hand Cart;* George Coolidge, Watertown, Middlesex county, Massachusetts, June 13.

This is a kind of hand cart, or barrow, for removing earth in excavating for canals, and other purposes. The body is made with the sides sloping, and is suspended upon two wheels, 4 feet 6 inches in diameter, by means of gudgeons, or axles, which are attached to the body near its upper edge. There are shafts, or handles, which are formed by the elongation of the top timbers of the frame of the cart, and a leg extending down from each shaft, like the legs of a wheel barrow. The bottom of the cart is made to fall, being made in two parts, which are hinged to the front and back of the frame, like two shutters. From these shutters, rise chains, which hitch on to a pin on the side of the cart, when the shutters are closed. A lever, which passes out alongside one of the shafts, acts upon the chains, and lowers or raises the bottom.

The use of the legs is to support the weight of the shafts, and the action of the lever; as, were these removed, the body would still remain suspended, the principal part of it, and its whole load, being below the point of suspension. The whole of the body lies within the circumference of the wheels, its length not being equal to their diameter. The earth is, in general, to be dropped by letting down the bottom, but when it is moist and adhesive, the body is to be inverted by raising the shafts, and turning them completely over.

The wheels are, of course, to run upon planks laid down for the purpose. Each cart is to contain 11 or 12 cubic feet of earth, and a number of them may be linked together, and drawn by horses.

There is no claim made, and perhaps the general plan is sufficiently novel and distinctive without particularizing the parts. There is, however, one effort at exactness which, were specifications to be construed rigorously, would endanger many a patent; namely, the precise dimensions of all the parts. We are told, for example, that "the wheels are $4\frac{1}{2}$ feet high; spokes $1\frac{3}{4}$ wide, and $1\frac{1}{4}$ thick; felloes $2\frac{1}{8}$ inches wide, $1\frac{1}{2}$ inches deep; tire $2\frac{1}{2}$ inches wide, and $\frac{1}{4}$ inch thick." And so of all the other parts.

---

9. For a machine for *Chopping Meat, Pulverizing Spices, Hommony, &c.;* Benton P. Coston, city of Philadelphia, June 13.

A round wooden block is to have its upper end excavated in the form of an inverted cone; a cylinder of tin, or other metal, is to extend up from this excavation to form the sides of the mortar. A chopping knife, with two edges, adapted to the cone, is to be fixed on to one end of a handle, or shaft, and at its other end there is fixed an iron pestle. The shaft is to slide in guides, keeping the knife or pestle in the centre of the cone, and one end, or the other, is to be turned downwards, according to the kind of work to be performed.