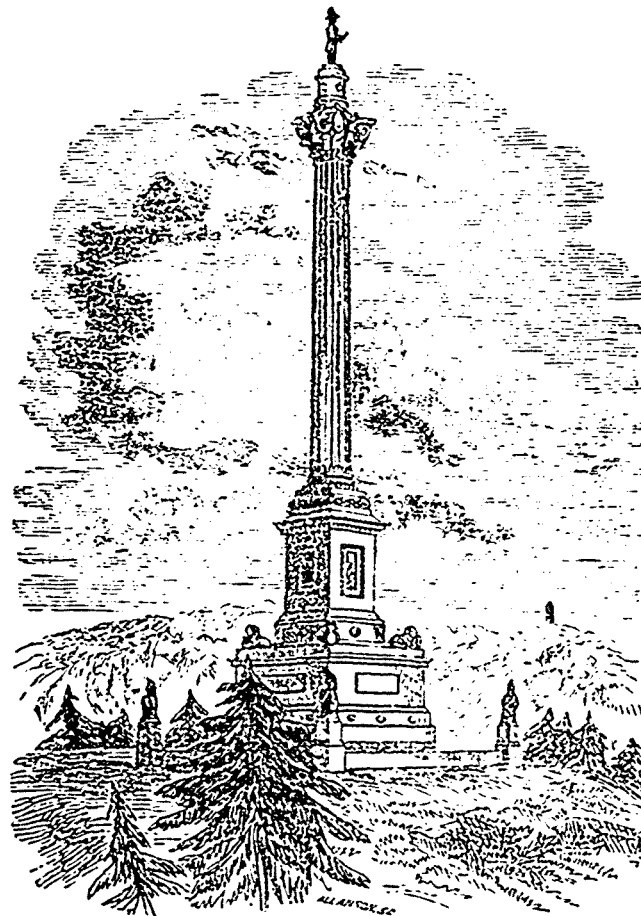


rotary motion, at a certain increase of speed, is communicated through the wheel, *r*, to the pinion, *w*, fixed upon the shaft, *u u*, which last-named shaft has its bearings (*v v*) attached to the movable frame, *i i*. On the shaft, *u u*, are placed a series of plates or projections, fixed at regular distances. Or such plates or projections, with their ploughs, may be placed upon separate shafts, each with its own proper gearing; but it is preferred to place them on one shaft. These plates or projections have affixed to each of them several ploughs, which, in revolving, penetrate the soil, and by their mouldboards elevate and turn over portions thereof: *a a* are the plates or projections fixed upon the shaft, *u*. Each plate (*a*) has three arms or prolongations (*b b b*), which terminate in the radial direction shown; a further prolongation (*d d*) is carried obliquely upon each of these arms. Upon the plate and projections thus constructed is affixed the tilling apparatus, which consists, first, of the part, *e*, which acts the

part of the mouldboard or turn-furrow in the common plough; and it is to be fixed by screw bolts, or otherwise, to the prolongation, *d d*. To the fore part of this mouldboard (*e e*) is affixed a bar of wrought iron, which is also furnished with a lug, by which it is attached to the plate by means of screw bolts, or otherwise; the bar, thus secured, forms a head or share-bearer, as in many common ploughs. To the fore part of the bar the share is adapted, and fixed by its socket. The mouldboard, and also the share, may be varied in form. An adjustable fore-cutter or coulter is affixed in front of each share. It will be seen, that not only the ploughs which are set in the same plane around the axis follow each other into action, but that the ploughs of the other sets (which are affixed around the axis in parallel planes) are arranged and come into action so that two plough-shares will not strike the earth at the same instant.

ARCHITECTURAL NOTICES.



The Brock Monument.

The Committee for the Erection of the Brock Monument, on the Queenston Heights, invited Architects to compete in the preparation of Designs, by offering a premium of £25 currency to the successful competitor, whose design should be adopted.

B

The meeting of the Committee took place, to receive the designs, on the 2nd of last month, at Queenston, and from thence adjourned to the 10th ult., at the Parliament Buildings, Toronto, where a large meeting of the Committee took place, viz.:—His