



### HARROWS.

A well constructed harrow is a most important and effective implement in fitting the soil for the reception of seed, by breaking up clods, disengaging roots, and pulverising the earth. Great improvements have been made within a comparatively recent period in the construction of the harrow, by which a more perfect pulverisation of the ground and a great saving of time and strength are each secured; and he must have lived and observed to little purpose, who is content to use the old clumsy and coarse harrow of former days, when any of the several improved forms are so readily obtained.

Harrow teeth should be made of Swede's iron, steel pointed, tapered at the upper end to fit a corresponding mortise made through the timber; and the teeth made fast by a nut and screw, to prevent their becoming loose, working up, or falling out.

We give above a cut of an Improved Hinge Harrow. It is usually made to take a breadth of five feet. It is composed of two pieces of frame-work, connected to each other by iron hinges coming together like common barn-door hinges, and which, extending across the pieces widthwise, are bolted to each bar, thus greatly strengthening the harrow. The ends of the bars are secured from splitting by iron rivets. The harrow may be folded double, or separated into two parts, for the convenience of transportation or other purpose. Either half may be lifted for any purpose while the implement is in motion; and the easy and independent play of the parts up and down upon the hinges, enables the instrument to adapt itself to the surface of the ground in all places, so that whether going through hollows, or over knolls and ridges, it is always at work, and every tooth has an operation upon the soil. There are thirty teeth in the harrow, and yet they stand equidistant and wide apart each way, so that while from their number and arrangement the ground is worked fine, they are not liable to clog. This harrow is made heavy for rough land and the pulverising of sod furrows, or light for grain and grass seed. It is a very light pretty harrow for one horse, when made of bars  $2\frac{1}{2}$  inches square, with teeth of half inch steel; and thus made, and carrying a breadth of five feet, one horse will harrow as much ground in a day with it, as is usually accomplished by two horses. It is made to draw either end forward; and when the teeth become dull by working in one direction forward, the team may be hitched to the other end, and they are sharp again.

In a former number, we gave a cut of an Expanding Reversible Harrow, which we used this Spring, and found useful among stumps and on rough ground. It cost about \$7 to construct it.