

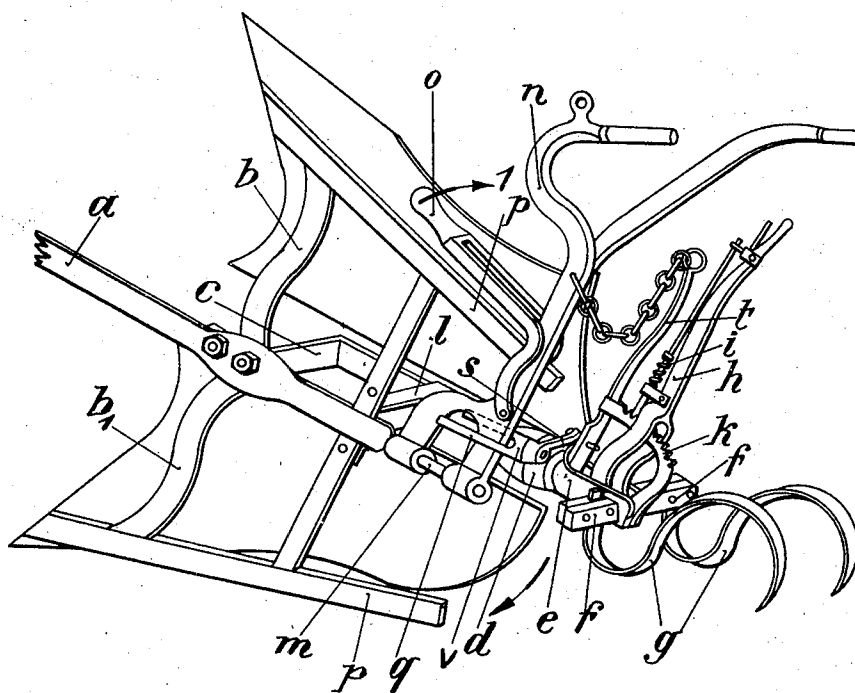
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SWIVEL FLOW WITH SUBSOIL LOOSENER

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SWIVEL PLOW WITH SUBSOIL LOOSENER.

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This invention relates to a swivel-plow with subsoil loosener. Whilst in the so-called bed-plows the connection of plow and subsoil loosener can be carried out without any difficulty it has hitherto not been possible, owing to the peculiarity of the swivel-plows, to arrange a subsoil loosener in front of the plow body so that this subsoil loosener can evidently not work in the line of the furrow to be cut but in the preceding furrow. An arrangement of this type cannot be utilized for plowing potato fields as in this occasion the potatoes have to be dropped into the furrow directly behind the plow, to be covered with earth from the cutting of the next following furrow.

The subsoil in the freshly cut furrow must therefore have been loosened before the potatoes are dropped into the furrow.

With this object in view the subsoil-looseners are arranged, according to the invention, behind the plow shares on the plow-beam so that they are steered to the right or left by the plow beam and maintained in the working position by the plow-tail with out any separate manipulation.

An embodiment of the invention is shown, by way of example, in the accompanying drawings in which the only figure shows in perspective view a swivel-plow constructed according to the invention, the fore-carriage having been omitted.

The plow-beam *a* is pivotally mounted in the fore-carriage as usual by means of an axially directed journal. The plow beam carries on the same side the superposed plow-shares *b* and *b'*. An arm *c* bent at right angles is fixed on the plow-beam and carries a bracket *d* at its free end, so that it is parallel to the plow beam. A U-shaped bow *e* is journaled in this bracket by means of a stud. The bow *e* carries two transverse clamping jaws *f* extending to either side which are connected with one another by a bolt which traverses the arms of the bow. In the clamping jaws *f* elastic teeth *g* are clamped which stand close together and are designed to work only in one furrow. The two elastic teeth *g* might be united to form one single tooth. On the bolt in bow *e* a hand lever *h* is keyed which has a ratchet pawl engaging with the teeth of a sector *k*.

The elastic teeth *g* participate evidently in the oscillation of said hand lever *h* so that their position with regard to the ground can be adjusted at will. The angle arm *c* is further supported and stayed by a bow *l* the arms of which embrace the angle arm *c*. The plow-beam *a* carries at the rear end a stud *m* on which the tail *n* is pivotally mounted. Upon the pawl *n* a slit handle *o* is pivotally fixed which is adapted to be oscillated in the direction of the arrow *l* and serves to couple the extension of the sole bar *p* with the tail, e. g. to make the plow-beam rigid with the tail. The tail is embraced close to its pivot point by a fork *q* which terminates in a bracket *v* with which a link *s* is connected. This link is hingedly connected to a bar *t* rigid with the bow *e*.

As can be seen from the drawing the elastic teeth *g* are situated at the sides of the fork *c* in the furrow which has just been cut by the plow-shares. If the plow is being veered, at which occasion the bow *o* is oscillated in backward direction towards the tail, the plow-shares roll over the earth boards so that all the elements which on the drawing are at the right side are turned over to the left side. Owing to the fork *q* and the link *s* the device, which carries the elastic teeth *g*, is maintained in the parallel position. If by oscillating the bow *o* in backward direction the second plow-share is coupled with the tail, the subsoil loosener is at the same time locked in its position, no special manipulation being required.

I claim:—

1. A swivel-plow with subsoil loosener, comprising in combination with the plow-beam, the plow shares and the tail, a rotatable bracket, means for holding said bracket in a position parallel to the plow-beam, elastic teeth serving as subsoil-loosener, means for securely mounting said teeth in said rotatable bracket, a fork embracing said tail, a link connected with said fork and with said rotatable bracket so that the subsoil loosener is securely held by the tail in any position without requiring any separate manipulation.

2. A swivel-plow with subsoil loosener, comprising in combination with the plow-beam, the plow shares and the tail, an arm

bent at right angles fixed on said plow-beam so that its free arm is parallel to said plow-beam, a bracket rotatably fixed on the free end of said arm, transverse clamping jaws in the front end of said bracket, elastic curved teeth serving as subsoil-looseners clamped between said clamping jaws, a fork embracing said tail, a link connected with said fork and with said rotatable bracket so that the subsoil loosener is securely held by the tail in any position without requiring any separate manipulation. 10

In testimony whereof I affix my signature.

JOSEF SCHMIDT.