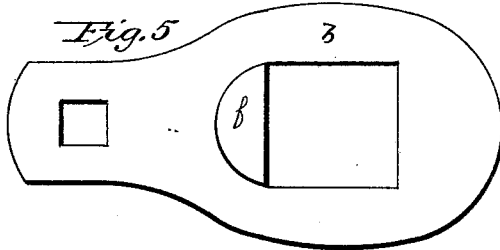
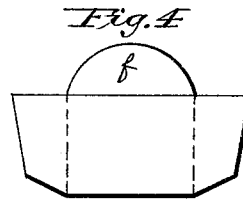
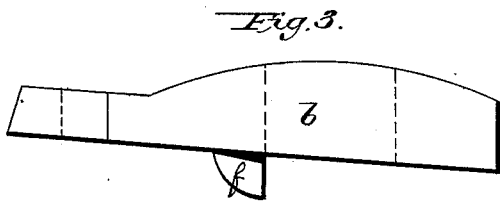
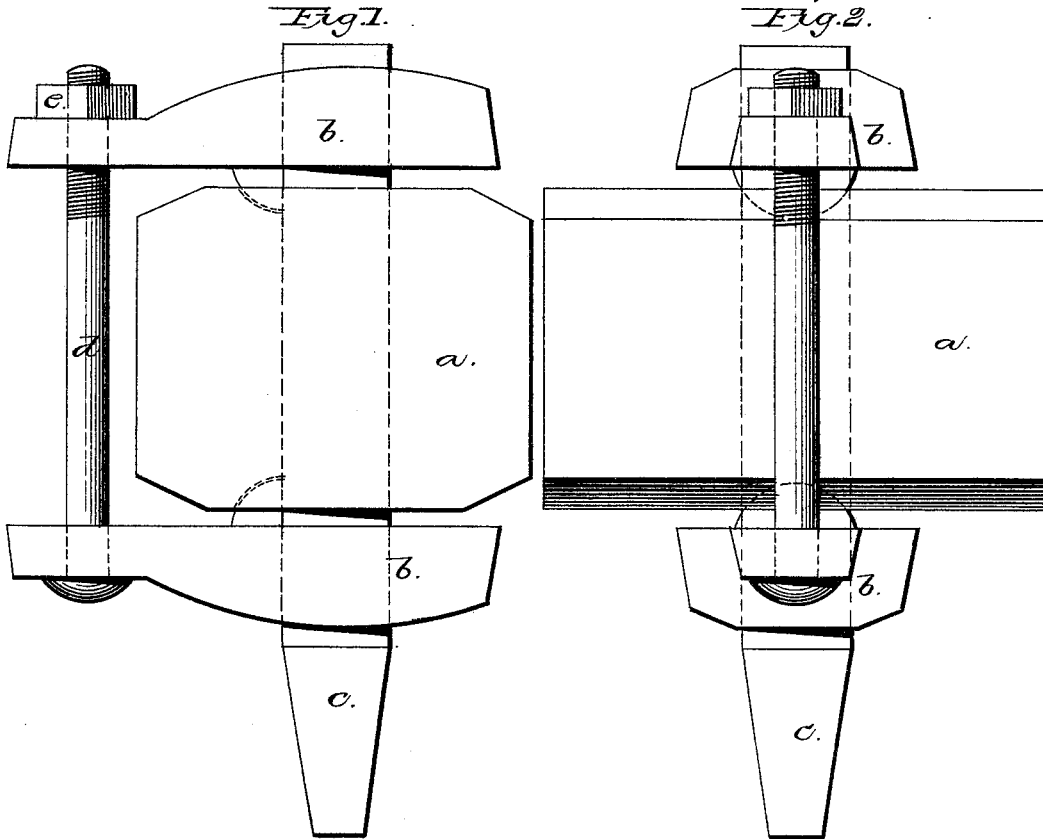


J. GMEINER.

CLASP FOR FASTENING DRAG TEETH.

No. 180,997.

Patented Aug. 15, 1876.



Witnesses:
Ludwick Gmeiner.
Adolf Gmeiner.

Inventor:
Joseph Gmeiner.

UNITED STATES PATENT OFFICE.

JOSEPH GMEINER, OF DALE, WISCONSIN.

IMPROVEMENT IN CLASPS FOR FASTENING DRAG-TEETH.

Specification forming part of Letters Patent No. **180,997**, dated August 15, 1876; application filed September 17, 1875.

To all whom it may concern:

Be it known that I, JOSEPH GMEINER, of Dale, in the county of Outagamie and State of Wisconsin, have invented a new and useful Improvement in Clasps for Fastening Drag-Teeth, which improvement is fully set forth in the following specification, reference being had to the accompanying drawings.

My invention relates to a new mode of fastening drag-teeth, so that they can be readily and easily removed or changed to the other side, forward, or taken out to be sharpened, reference being had to the drawing, and to the letters of reference marked thereon.

a represents the beam in the harrow; *b*, the clasp; *c*, the tooth; *d*, the bolt through the end of the clasp; *e*, the nuts on said bolt, and *f* the lugs on the inner side of the clasps. The hole in the beam is made large enough so that the tooth will slip in easy, and then there is cut out, on the upper and under side of said beam, in the hole for the admission of the tooth, a little nick, to admit the legs on the inner side of said clasps. The said clasps are slipped over said tooth, and the bolt put

through the said clasps at the end, and nut put on and tightened, throwing the clasps in a diagonal shape, and causing a pressure of the legs on the inner side of the clasps against the tooth, which will immediately fasten the tooth. The clasps are made of cast-iron with a square hole through them at one end to slip over the tooth, and a round hole at the other end to slip the bolt through to fasten it, and a leg on the under side to slip into the nick in the beam beside the tooth.

The intention of this improvement is that by loosening the bolt in the clasps the tooth becomes loose, and can readily be taken out to be sharpened or changed at pleasure.

I claim as my invention—

The clasps *b b*, having the lugs *ff*, as shown, in combination with the teeth *c* and beams *a*, and held in place by the bolt *d*, as shown and described.

JOSEPH GMEINER.

Witnesses:

ADOLPH GMEINER,
LUDWICK GMEINER.