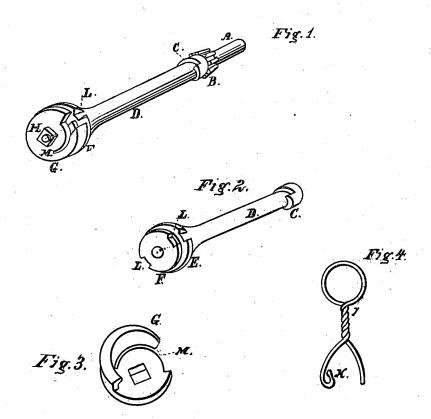
No. 193,287.

Patented July 17, 1877.



Joghning 1

J. G. Blink Ja

INVENTOR.

Ole OStorle

## UNITED STATES PATENT OFFICE.

OLE O. STORLE, OF MILWAUKEE, WISCONSIN, ASSIGNOR OF ONE-THIRD HIS RIGHT TO JOHN G. FLINT, JR., OF SAME PLACE.

## IMPROVEMENT IN GRAIN-BINDERS.

Specification forming part of Letters Patent No. 193,287, dated July 17, 1877; application filed November 20, 1876.

To all whom it may concern:

Be it known that I, OLE O. STORLE, of Milwaukee, in the county of Milwaukee, in the State of Wisconsin, have invented certain Improvements in Twisters for Grain-Binders, of which the following is a specification:

My invention has for its object the twisting of the ends of the wire used in binding a sheaf

of grain.

The twister has a peculiarly shaped head on a shaft, and a sleeve on said shaft, with a head on same, made with two rims, with a groove between the outer rim, turning in a groove in the head on the shaft. The rims on the sleeve have slots on each side of same for a wire to lie in, and the head on the shaft has a hooking-slot, which catches the wire and twists it, the sleeve turning with the shaft till the wire is twisted, when a lever is brought down and catches in a clutch on the end of the sleeve, and holds the sleeve still till the head passes half-way round and bends the wire, and cuts it off and lets the sheaf fall, the end of the binding-wire for the next sheaf being held in the twister.

Referring to the drawing forming part of this specification, Figure 1 shows a view of my invention; Fig. 2, a view of the head on the shaft; Fig. 3, a view of the sleeve, and Fig. 4

a view of the wire after it is twisted.

A shows a shaft, on which is a sleeve and head; B, a pinion on the shaft; C, a clutch on a sleeve; D, a sleeve on the shaft; E, an inner rim forming part of a head on the sleeve; F, an outer rim on the end of the sleeve, form-

ing the balance of the head. This rim works in a groove in the head on the end of the shaft A; G, a head on the outer end of shaft A, covering the outer rim F on the sleeve. H is a nut on the end of shaft A; I, the twist in the wire which holds the same together; K, the crook of the wire, so that the end of the same may be held between the head G and rim F till the same comes round to slot L in the rims E and F; M, a hookingslot in head G, which catches the wire and holds it while being twisted.

This twister is operated as follows: The sleeve and head revolve together, and when the wire is brought over into the slot L, the hooked slot in the head G, revolving, catches it and twists the wire, and when the number of twists necessary is made, a lever (not shown) is let down, and catches in the clutch on the sleeve D and strips the sleeve, while the head G passes on, and the wire is brought in contact with the shoulder on one side of the slot in rim F, and head G cuts it off, and the end of the binding-wire is held by the crook I in between the rim F and head G till another sheaf is ready to be bound.

I claim as new and as my invention— Head G, with its hooking-slot M, in combination with sleeve D, rims E and F, with slot L, clutch C, and shaft A, substantially as specified.

OLE O. STORLE.

Witnesses:

J. B. SMITH, J. G. FLINT, Jr.