E. FOOTE.

Grain-Bands, Bag-Ties, &c.

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Fig. 1.

Fig. 2.

Fig. 3.

Witnesses.

Elisha Foote.

Henry Roberts.

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ELISHA FOOTE, OF EAST BLOOMFIELD, NEW YORK.

IMPROVEMENT IN GRAIN-BANDS, BAG-TIES, &c.


To all whom it may concern:

Be it known that I, ELISHA FOOTE, of East Bloomfield, in the State of New York, have invented certain Improvements in Bands for Binding Grain and other like substances, of which the following is a specification:

The particular object of my band is for use in connection with that class of reaping-machines which deliver the cut grain in bound bundles, and it very much simplifies the machinery heretofore used in those devices. It was especially designed for a self-binding reaper that I am at present engaged in constructing; but it is also applicable to other machines, and it is very convenient for binding by hand. The invention consists in the peculiar holder hereinafter described.

These bands are made of ordinary hemp, Manila, or jute cords, of sufficient size and strength to hold the bundle securely together. Hemp cords about one-eighth of an inch in diameter and three feet six inches long answer well the purpose. Some would prefer to have them tared to keep out moisture. To one end of these cords I attach what I term the "holder." This is represented in Fig. 1 in the annexed drawing. It is made of annealed iron wire about one-twelfth of an inch in diameter, and bent around a form into the shape shown in the drawing. The upper part A, to which the cord is attached, is round or oblong. The lower has two straight sides, B B', that converge toward a point, C. The wires, after being cut to suitable lengths, are first bent at the middle to form the straight sides, and then around, so that the ends a a overlap each other at the top, as shown in Fig. 2.

The operation is shown in Fig. 3. The free end of the cord, being carried around the bundle and through the enlarged part of the holder, is then drawn tight—as tight as it may be desired—to bind the grain, and when released the cord of itself slides down between the converging sides B B', and is pinched by them in proportion to the strain and held with great firmness.

The convergence of these sides must not be too rapid. The more nearly they approach to parallelism the stronger will they hold the cord. The drawing shows a proper convergence for the cord used.

These bands will be found further advantageous on account of the rapidity with which grain bound with them may be unbound. This is an important consideration when grain is thrashed by machinery and has to be fed rapidly into a machine. A pull on the free end of the cord draws it up out of the converging sides into the open part and releases it.

The bands can be preserved and used over and over again.

It will be seen that by this construction any tendency which the converging sides may have to separate or be forced apart when the cord is drawn in tightly between them (and which would be fatal to their successful operation) is prevented. The action of the cord on the overlapping ends tends to draw the converging sides more closely together as the strain is increased; and thus it is that, however tightly the cord may be drawn, the fastening, without reference to the stiffness of the wire, will be secure and firm.

What I claim as new in the above-described band is—

The holder A B B' C, constructed substantially as described.

ELISHA FOOTE.

Witnesses:

C. H. POOLE,
HENRY ROBERTS.