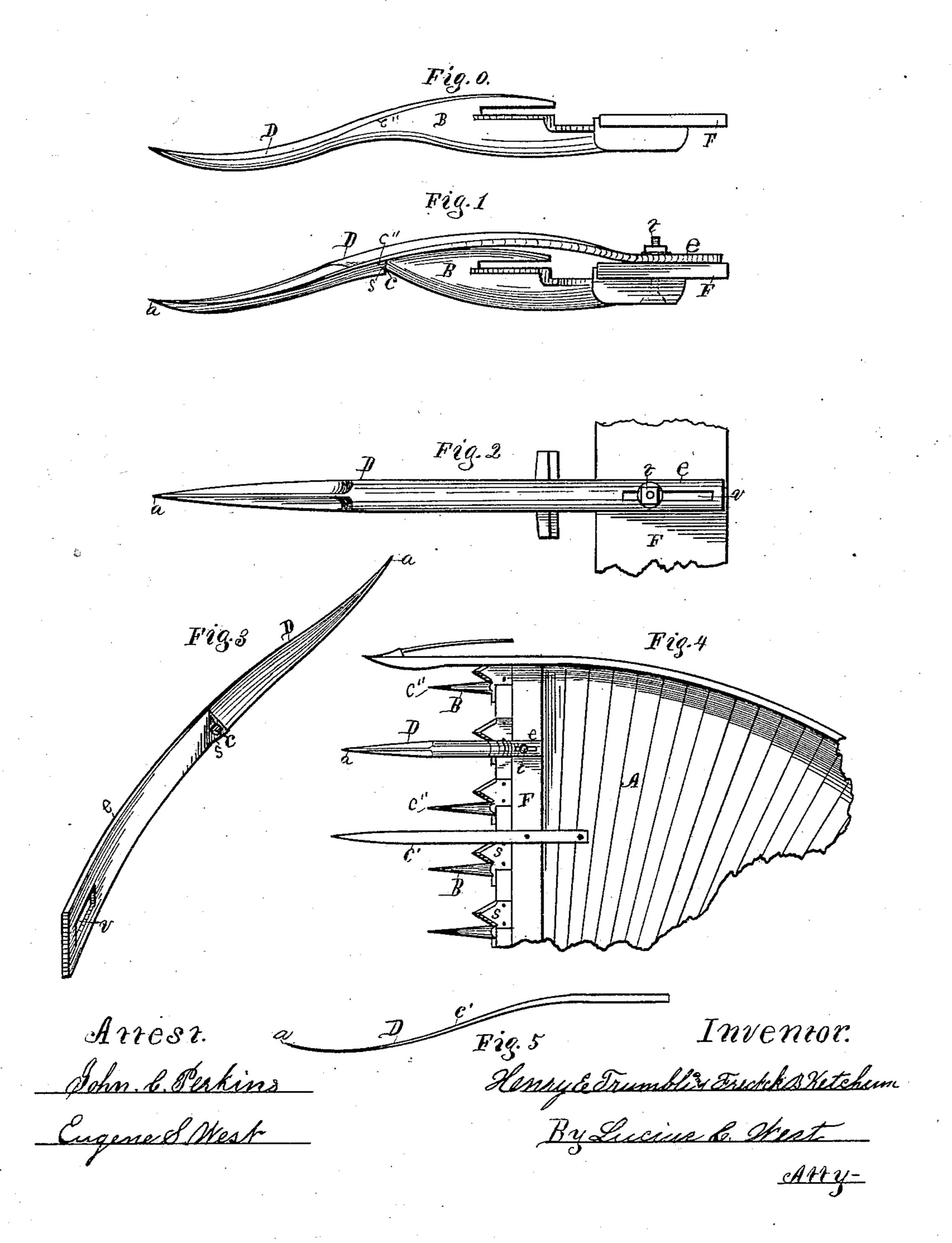
(No Model.)

## H. E. TRUMBLE & F. A. KETCHUM.

EXTENSION GUARD FOR REAPERS.

No. 256,933.

Patented Apr. 25, 1882.



## United States Patent Office.

HENRY E. TRUMBLE, OF KALAMAZOO, AND FREDERICK A. KETCHUM, OF THREE RIVERS, ASSIGNORS OF ONE THIRD TO FREDERICK HOTOP, OF KALAMAZOO, MICHIGAN.

## EXTENSION-GUARD FOR REAPERS.

SPECIFICATION forming part of Letters Patent No. 256,933, dated April 25, 1882.

Application filed December 19, 1881. (No model.)

To all whom it may concern:

Be it known that we, Henry E. Trumble and Frederick A. Ketchum, citizens of the United States, residing at Kalamazoo and 5 Three Rivers, counties of Kalamazoo and St. Joseph, State of Michigan, respectively, have invented a new and useful Extension - Guard for Reapers, of which the following is a description.

Our invention has for its object a construction relating to the sickle guards and table of a grain-reaper, whereby lodged grain is raised or straightened up in a condition to be cut by the sickle. We effect our object either by connecting a detachable finger of peculiar form with the common guard now in use, which constitutes an extension to the guard, by constructing the extension and guard proper integral with each other, or by equivalent methods, one of which is described in the detailed description.

In the drawings forming a part of this specification, Figure 0 is a side elevation of a guard and extension formed integral with each other;

Fig. 1, the detachable extension connected with a guard; Fig. 2, a top view of same; Fig. 3, the detachable extension in perspective, showing under side; Fig. 4, a broken portion of sickle bar and table, and Fig. 5 a side view of an equivalent device.

A is the sickle-bar table; F, plate to which the guards B are secured. The function of this common reaper-guard, B, is to coact with the sickle-blades in forming a shear to cut the grain, and also to guard the blades from contact with stones and other obstructions; but by means of our improvement lodged grain may be raised up and cut without changing the location and angle of the sickle-table A.

We construct the detachable guard-extension with parts e and D. The former is adapted to fit over guard B, where it is held secure

by the guard-bolt t, and the latter, D, is made thicker and has a shoulder at s, in which is formed a hole or mortise, c, in which hole the 45 point of the guard is located, to assist in holding the extension device secure. This portion D is extended, with an outward, downward, and slightly upward curvature, terminating in a tapered point at a, said point being located 50 well below the original plane of point c'' of the guard proper, B. The end of portion e is slotted at v, in order to conform the device to the varying point of location of the guard-bolt t in relation to the distance between said bolt 55 and point c'' in different machines.

c' is a finger made from a strip of metal having the same general configuration of the extension D in the other devices shown. It may be bolted to table A between the guards B, as 60 in Fig. 4, and by it the lodged grain raised; but we prefer the construction shown in Fig. 1, deeming it the most practical.

In operation the point a, being located very near the ground, runs under the lodged grain, 65 raising it, as before specified, and as end a is slightly curved upward its contact with sods and little mounds of soft earth does not interfere with the operation of the reaper.

What we claim as new is—

In a reaper, the combination, with a sickle-guard, of an extension guard or finger curving downward and outward from said guard, and having the shoulder with the mortise in which the point of the sickle-guard is located, and 75 the elongated slot adapting it to the varying types of reaper-guards, all substantially as set forth.

HENRY E. TRUMBLE. FREDERICK A. KETCHUM.

Witnesses:

FREDERICK HOTOP, G. W. O'HARRA.