E. C. ALLEN.

Stone Slide.

No. 110,619. Patented Jan. 3, 1871.

*Fig. 1.*

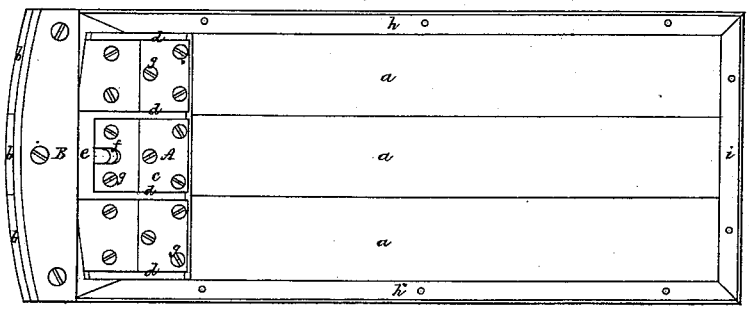



*Fig. 2.*

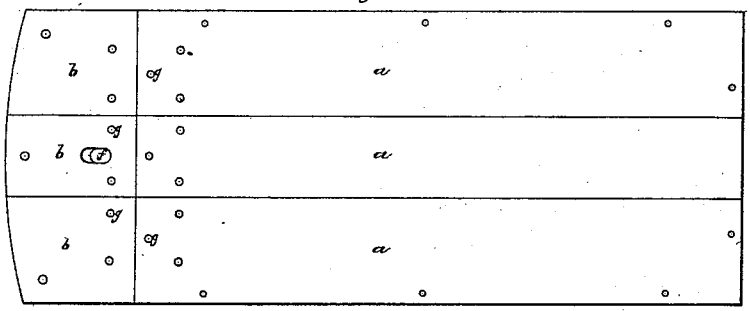



*Fig. 3.*

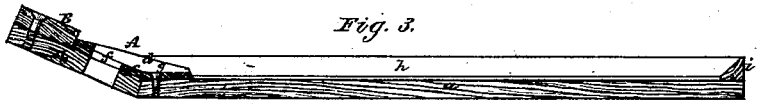
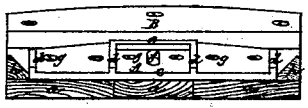



*Fig. 4.*




Witnesses.

S. N. Piper

J. R. Snow

E. C. Allen.

by his attorney

R. Ulrich

# United States Patent Office.

ELIJAH C. ALLEN, OF DEERFIELD, MASSACHUSETTS.

Letters Patent No. 110,619, dated January 3, 1871; antedated December 21, 1870.

## IMPROVEMENT IN STONE-DRAGS.

The Schedule referred to in these Letters Patent and making part of the same.

*To all persons to whom these presents may come:*

Be it known that I, ELIJAH C. ALLEN, of Deerfield, of the county of Franklin, of the State of Massachusetts, have invented an Improved Stone-Drag; and do hereby declare the same to be fully described in the following specification, and represented in the accompanying drawing, of which—

Figure 1 is a top view;

Figure 2, a bottom view;

Figure 3, a longitudinal section; and

Figure 4, a transverse section of it.

Heretofore in making a stone-drag, it has been customary to form the sections of the bow and bottom in one piece of plank or timber, sawed into shape for the purpose, all of which, besides being expensive, has been attended with much necessary waste of material.

In carrying out my invention, I construct each of the sections in separate pieces, that is, a bottom plank and a bow-plank, which I arrange end to end, and fasten to a separate metallic connection.

In the drawing, each of the sections is represented as composed of a bottom plank, *a*, and a bow-plank, *b*, there being usually three of the sections which are arranged edge to edge in manner as shown.

The metallic connection shown at A is to be cast in one piece of metal, and consists of a bent base plate, *c*, furnished with a series of triangular ribs, *d*, arranged across it, and in the hollow of it in manner as represented, the two next the middle of the plate being connected at their front ends by a cross-rib, *e*, directly in rear of the middle of which is an elongated slot, *f*, which is made through the connection A, and continued through the bow of the drag.

The ribs not only serve to strengthen the connection-piece but to sustain stones when laid on them, and to prevent such stones from jamming or injuring the links of the draft-chain when inserted in the slot.

The connection-piece laid on the angle between the bow and bottom planks, is to be secured to them by screws *g g*, or by bolts or rivets, and the bow-planks *b b b*, are to be further held together by a head-bar or piece, B, extended across and fastened to them, the same being arranged as represented.

The usual guard-ledges *h i i* are to be bolted to the end and sides of the bottom, and to rise above such, in manner as shown in the drawing.

A drag so made is not only much stronger and better than one as constructed in manner as herein first described, but is easier of repair, and more durable.

I claim as a new or improved manufacture—

1. A stone-drag, as constructed, with separate bottom and bow-planks *a b*, and a metallic connection, A, as described, arranged and combined together, and with guard-ledges *h i i*, and a head piece, B, all substantially as specified.

2. The metallic connection A, as composed of the base, bent and slotted as described, the support or guard-ribs, and the cross-rib, arranged and cast in one piece, as set forth.

ELIJAH C. ALLEN.

Witnesses:

R. H. EDDY,

J. R. SNOW.