(No Model.)

G. E. RICHARDS.

BOX FOR TOOLS.

No. 350,016. Patented Sept. 28, 1886.

FIG. I.

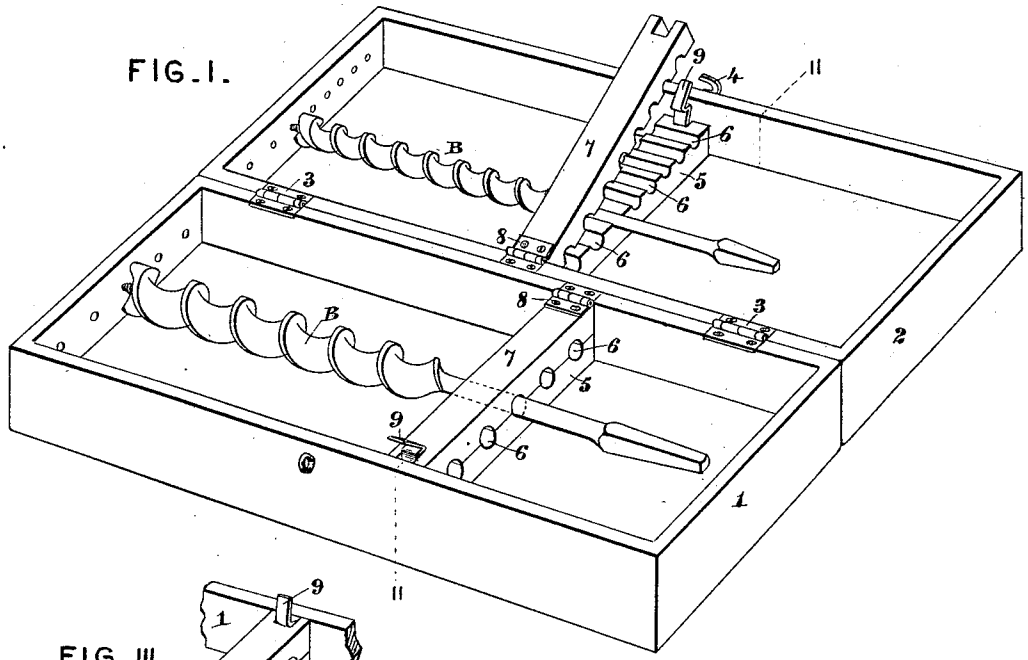


FIG. III.

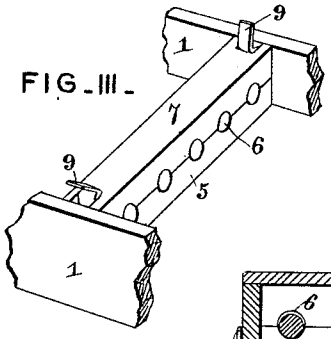
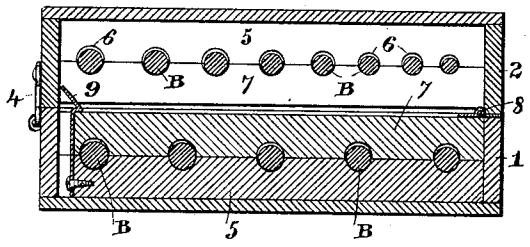


FIG. II.



Attest:
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UNITED STATES PATENT OFFICE.

GEORGE E. RICHARDS, OF FISKDALE, MASSACHUSETTS, ASSIGNOR TO THE SNELL MANUFACTURING COMPANY, OF SAME PLACE.

BOX FOR TOOLS.

SPECIFICATION forming part of Letters Patent No. 350,016, dated September 28, 1886.

Application filed March 10, 1886. Serial No. 194,749. (No model.)

To all whom it may concern:

Be it known that I, GEORGE E. RICHARDS, a citizen of the United States, residing at Fiskdale, in the county of Worcester and State of Massachusetts, have invented a new and useful Improvement in Boxes for Holding Tools, of which the following is a specification.

For shipping boring-bits of various kinds it is customary, to a certain extent, to arrange them in boxes in assorted sizes, the bits being fastened by metallic spring-clips which engage their shanks, so as to hold them within the box and keep them apart, preventing injurious contact. This mode requires a spring for every bit, and has been found defective by reason of the liability of the springs to become bent, weak, and ineffective, so that it is not uncommon in opening the box to find the bits mingled in a confused mass, and consequently more or less injured.

My improvement consists in a box provided with a bar formed with a number of grooves—one for each bit-shank—and over this a bar similarly grooved, so that, the bits being placed in position, the bar is shut down over them and there held by a spring or springs, fastening the whole set of bits securely in place. The box is preferably made double, each part being provided with the grooved clip-bars above described and the two parts closed together, by which means a complete set of thirteen bits, running in sixteenths from a quarter of an inch to an inch, are contained in a box of convenient dimensions.

In order that the invention may be fully understood, I will proceed to describe it with reference to the accompanying drawings, in which—

Figure I is a perspective view of a box of bits, the box being open, and one of the hinged clip-bars being elevated. Fig. II is a transverse section of the box closed, the line II II, Fig. I, indicating the plane of section. Fig. III illustrates a modification.

1 2 represent the two parts of a box, equal in height and secured together by customary hinges, 3, and a hook, 4, or other suitable fastening. Within each part of the box is a bridge-bar, 5, formed with grooves 6, for the reception of the shanks of the bits B. Over each bridge-bar 5 is a similarly-grooved clip-bar, 7, connected to the back of the box by hinge 8, and fastened at its free end by a spring-catch, 9.

In placing the bits in the box their points are screwed into the end of the box, so as to secure this end and hold them against longitudinal movement. The shanks being set in the seats prepared for them, and the clip-bar closed over them, the bits are securely held out of contact with one another, and when the box is shut are adapted for secure transportation to any distance without other packing.

Two or more of the bridge-bars 5 and corresponding clip-bars, 7, may be provided in each part of the box, if preferred, the grooves or sockets in one of them being of suitable size and shape to receive the worm of the bit.

If preferred, the hinges 8 of the clip-bars may be dispensed with and the bars secured at both ends by clips 9, as illustrated in Fig. III.

The invention is applicable to holding other tools than boring-bits, and, in fact, to any purpose where a number of tools or like articles are required to be held apart in parallel position for transportation or storage.

Having thus described my invention, the following is what I claim as new therein and desire to secure by Letters Patent:

1. The combination, with a box, of grooved bar 5, clip-bar 7, and an automatic means for fastening bar 7 to bar 5.

2. The combination of the two parts 1 2 of the box, hinged together, grooved bridge-bar 5, hinged clip-bars 7, and spring-catch 9, substantially as and for the purpose set forth.

GEO. E. RICHARDS.

Witnesses:
RUFUS E. BOND,
JOHN F. HEBARD.