

S. DAVIS.
 KNIFE GUARD FOR PLANERS AND THE LIKE.
 APPLICATION FILED FEB. 25, 1910.

985,786.

Patented Mar. 7, 1911.

Fig. 1.

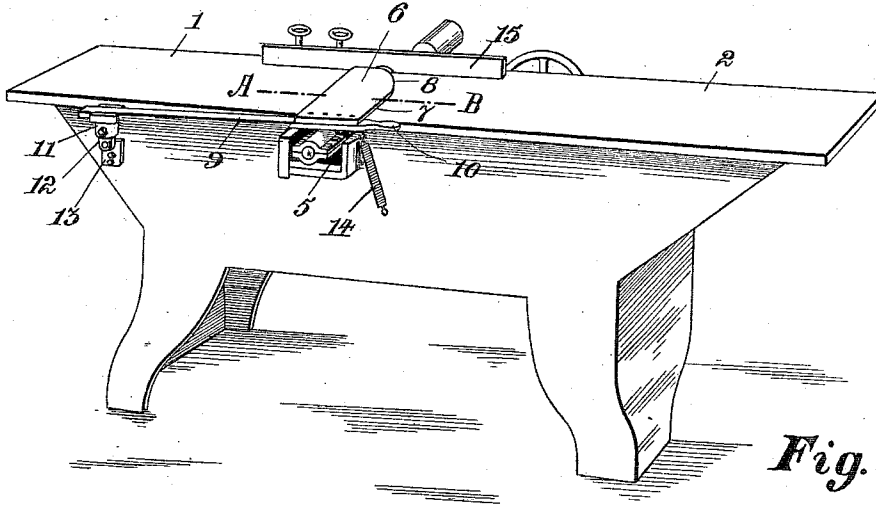


Fig. 4.

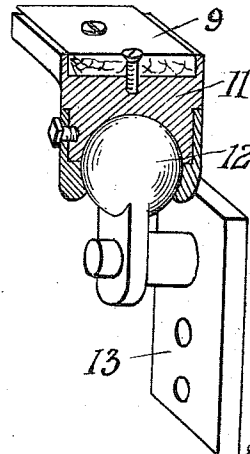


Fig. 2.

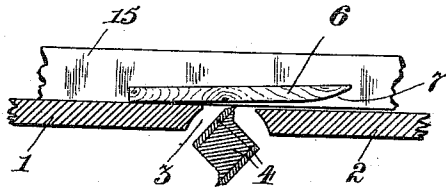
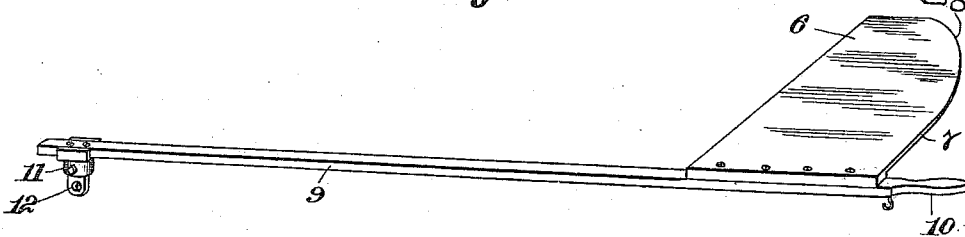


Fig. 3.



Witnesses.

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KNIFE-GUARD FOR PLANERS AND THE LIKE.

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To all whom it may concern:

Be it known that I, STEPHEN DAVIS, resident of 647 St. Lawrence Boulevard, in the city and district of Montreal, in the Province of Quebec, in the Dominion of Canada, a subject of the King of Great Britain, have invented certain new and useful Improvements in Knife-Guards for Planers and the Like; and I do hereby declare that the following is a full, clear, and exact description of the same.

The invention relates to improvements in knife guards for planers and the like, as described in the present specification and illustrated in the accompanying drawings that form part of the same.

The invention consists essentially in the novel construction and arrangement of parts whereby a guard member may be moved in any direction from its position over the knife by a lever connected thereto.

The objects of the invention are to devise a form of guard which will effectually overcome the dangers to the workmen incident to the operation of planing machines, to provide a device which will be raised and lowered or moved to one side for the better accommodation of the board to be planed, and generally to furnish a simple, cheap and durable construction.

In the drawings, Figure 1 is a perspective view of a planer, showing the invention applied thereto. Fig. 2 is a longitudinal sectional view of a portion of the planing table and cross sectional view of the knife and guard on the line A—B in Fig. 1. Fig. 3 is a perspective detail of the guard and operating lever. Fig. 4 is a sectional perspective detail of the universal joint.

Like numerals of reference indicate corresponding parts in each figure.

Referring to the drawings, 1 is a portion of the table, slightly elevated, as customary, in respect to the other portion 2.

3 is the knife space between the portions 1 and 2.

4 is the knife in the knife box 5, said knife being suitably journaled and driven as usual.

6 is the guard member preferably formed of a wooden board having the beveled front under side 7 and the curved inner end 8.

9 is a lever having the handle 10, said lever being secured to the under side of the guard member 6 at the outer edge thereof.

11 is a member of a universal joint suit-

ably secured to the other member 12 of said joint, the latter being supported by the bracket 13, which is rigidly secured to the frame of the machine immediately below the portion 1 of the table and preferably adjacent to the end thereof.

14 is a helical spring at one end secured to the frame of the machine below and to the front of the knife box 5 and at the other end to the lever 9 adjacent to the handle 10 and adapted to retain the guard member 6 in position over the knife and to the rest 15 on the other side of the table, said guard member normally resting on the elevated portion 1 of the table.

In the operation of this machine, in planing an ordinary thin board, it is slid along the table and comes in contact with the under front side of the guard member 6 raising said guard member and passing over the knife as customary, which comes in contact with said board and planes it, the board continuing along on the elevated portion of the table 1 as usual. It will be thus seen that the arrangement of the guard member, that is to say, the flexible nature of the joint, by which the lever is attached to the table, will permit the raising of said guard member and yet retaining it in position still over the knife and over the board which is being planed. The spring holding the said guard member firmly to the board as it passes along. In planing a thicker and narrower piece of timber, or planing the edge of a board, the guard member will slide to one side, the joint hereinbefore mentioned permitting also that movement of said guard member, in fact, it is thoroughly flexible in its movement throughout and if necessary may be raised by hand in any direction through the manipulation of the lever.

The description has been confined in the application of this invention to a planer, but it must be understood that it may be used on all styles of wood cutting machines which have a knife or a saw, the flexibility of movement of the guard member being the main feature.

What I claim as my invention is:

1. In knife guards for planers and the like, the combination with a machine and a knife operating in said machine, of a guard member adapted to extend over said knife, a lever rigidly secured to said guard member and to the frame of the machine and arranged at its fulcrum to permit the carry-

ing of said guard member vertically, laterally and obliquely away for said table.

2. In knife guards for planers and the like, the combination with a machine and a knife operating therein, of a guard member having a beveled front under side, a lever rigidly secured to said guard member and extending toward the rear end of the machine, a joint connecting said lever to the frame permitting the carrying of said guard member vertically, laterally and obliquely away from said table, and a spring secured to said lever at one end and to the frame of the machine at the other and adapted to yieldingly resist the various movements of said guard member.

3. In knife guards for planers and the like, the combination with a machine and a knife operating therein of a guard mem-

ber having a beveled front side and a curved inner end, a lever rigidly secured to the other end of said guard member and having a suitable handle, a joint connecting said lever to the frame and permitting the carrying of said guard member vertically, laterally and obliquely away from said table, and a helical spring secured to said lever at one end and to the frame of the machine at the other, and adapted to yieldingly resist the various movements of said guard member.

Signed at the city and district of Montreal, Quebec, Canada, this 17th day of February, 1910.

STEPHEN DAVIS.

Witnesses:

JOS. PRESNER,
P. SHEE.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."
