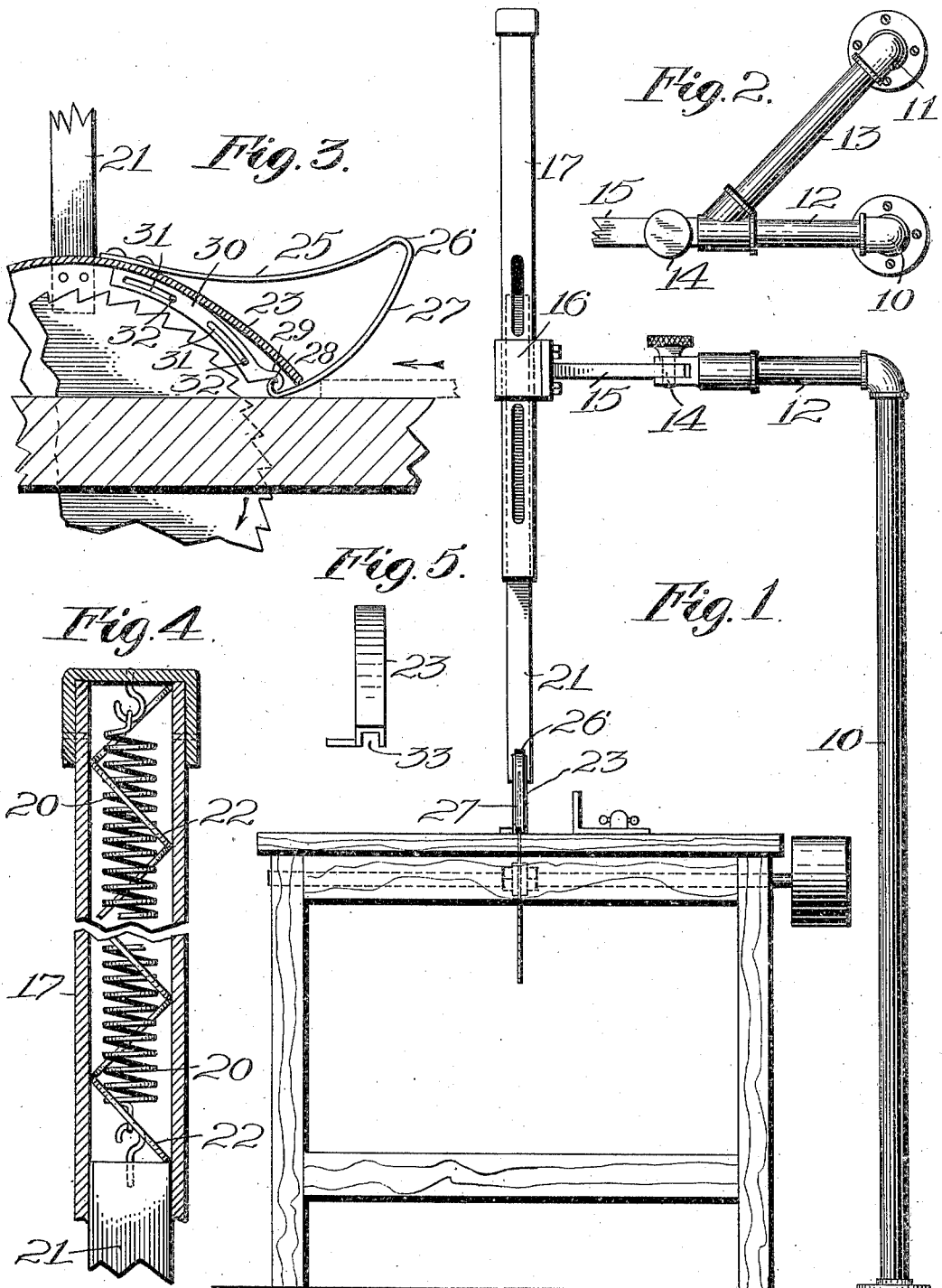


C. H. BURBANK.
SAW GUARD.
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Patented Mar. 1, 1910.



Witnesses:

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UNITED STATES PATENT OFFICE.

CHARLES H. BURBANK, OF MILLBURY, MASSACHUSETTS.

SAW-GUARD.

950,994.

Specification of Letters Patent.

Patented Mar. 1, 1910.

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To all whom it may concern:

Be it known that I, CHARLES H. BURBANK, a citizen of the United States, residing at Millbury, in the county of Worcester and State of Massachusetts, have invented a new and useful Saw-Guard, of which the following is a specification.

This invention relates to a guard for saws and the like. Many devices have been invented for this purpose, but they have generally been open to the objection that when the resiliently supported guard was pushed up by a board there remained a space under the front end of the guard after the rear end of the board passed under it which would allow the fingers of the operator to enter beneath where they could come into contact with the saw.

The principal object of the present invention is to provide a construction which will not be open to that objection, and generally to simplify and improve saw guards.

Further objects and advantages of the invention will appear hereinafter.

Reference is to be had to the accompanying drawings, in which—

Figure 1 is a front elevation of a saw table with a preferred embodiment of the invention applied thereto; Fig. 2 is a plan of the supporting part of the same; Fig. 3 is a transverse sectional view of a portion of the device on enlarged scale; Fig. 4 is a transverse sectional view of the upper portion of the supporting means on enlarged scale; and Fig. 5 is a front view of the guard proper enlarged.

The invention is shown in a form comprising a support or standard consisting of two vertical pipes or tubes 10 and 11 fixed to the floor and extending upwardly to a suitable height. Each of them is provided with a horizontal portion 12 and 13 respectively, the former extending directly inward and the other extending at an angle and fixed to the horizontal portion 12. These parts are provided with a vertical pivot 14 which supports an arm 15 adapted to swing on the pivot, the arm being provided with a holding means 16 for a vertical cylinder 17 which can be adjusted up and down by loosening the bolts that hold the parts 16. This cylinder is provided with a main spring 20 for holding up a plunger 21, and it is also provided with an auxiliary weaker spring 22 bearing on the plunger to assist gravity in bringing it down when it has been lifted.

The spring 20 assists in lifting the plunger when it is desired to lift it, and at all times it holds it so that it can easily be lifted a short distance. The plunger is provided on the bottom with a concave shell 23 constituting the saw-guard proper, and covering the top of the saw or other implement to be guarded. Near the top of this guard is fixed the end of a spring which is shown as having a part 25 extending outwardly in a bowed manner, and in a general upward direction to a point beyond the edge of the guard. It is then provided with a sharp turn 26 and has a curved portion 27 extending inwardly so as to come in under the edge of the guard. This portion is provided with a hook 28 inside of the guard extending downwardly to engage a hook 29 on a guide plate 30 which is located inside the guard and provided with slots 31 through which pass pins 32 fixed to the guard, so that the guide plate may always keep the end of the spring in proper position with respect to the edge of the guard whether the latter is up or down. This spring passes through a slot 33 in the bottom of the guard.

It will be understood that when a board is brought into position it first engages the spring 27 and forces that up positively, and at the same time forces up the guard 23 against the force of gravity and the spring 22. The board can be sawed in the usual manner without any unusual attention being given to the guard. When the board has passed through to the other side so that no part of it engages the front of the guard the spring 27 will draw back against the table, thus preventing the fingers of the operator coming against the saw, which is very important because in a guard having only the shell 23 it is obvious that as long as the board is under the guard at all there will be an unprotected opening under the front edge of the guard to permit the fingers of the operator to be caught, but with the use of the spring 27 and slide 30 this difficulty is avoided. At the same time the construction is exceedingly simple and there are no complicated or expensive parts.

While I have illustrated and described a preferred embodiment of the invention I am aware that many modifications can be made therein by any person skilled in the art without departing from the scope of the invention as expressed in the claims. Therefore, I do not wish to be limited to

all the features of construction shown and described, but

What I do claim is:—

1. The combination with a saw table or frame, of a support or standard located at the side thereof and consisting of two vertical pipes fixed at their lower ends, each of said pipes having a horizontal portion extending toward the other at an angle and connected therewith, an arm movably mounted on a vertical axis beyond the point of connection of said horizontal portions, a plunger carried by the arm, and a guard on the plunger adapted to engage the table or frame.

2. In a guard for saws or the like, the combination of a vertically adjustable cylinder, a plunger extending down through the bottom thereof, a spring in the cylinder for holding the plunger up, and a second weaker spring in the cylinder for assisting in resiliently holding the plunger down, and a guard on the bottom of the plunger.

3. In a saw guard, the combination of a resiliently mounted plunger, a guard mounted on the bottom thereof for covering a saw, a yielding member on the top of said guard, said yielding member extending outwardly from the guard and then down around under its edge, and a slidable plate inside the guard connected with said yielding member for guiding the end thereof.

4. In a guard for saws or the like, the combination of a table, a guard supported above the table, a spring supported on the top of the guard and extending upwardly therefrom outside the guard and then extending downwardly under the edge of the guard, and a plate mounted on the lower side of the guard and connected with said spring, said plate being slidably mounted and said spring acting to normally engage the table in all positions of the guard.

5. In a saw guard, the combination of a concave shell constituting the guard proper,

a spring fixed to the upper part of the shell and extending in a general upward direction therefrom to a point beyond the edge of the guard and extending downwardly in a curved direction under the edge of the guard and having an upwardly projecting hook on its end inside the guard, and a plate inside the guard reciprocably mounted and having means for engaging said hook, whereby said plate will move with the hook toward and from the edge of the guard.

6. In a saw guard, the combination of a shell constituting the guard proper, a spring fixed to the upper part of the shell and extending in a general upward direction therefrom to a point beyond the edge of the guard and extending downwardly in a curved direction under the edge of the guard and having an upwardly projecting hook on its end inside the guard, and means inside the guard engaging said hook for keeping the end of the spring in proper position.

7. In a saw guard, the combination of a shell constituting the guard proper, and a spring fixed to the upper part of the shell and extending in a general upward direction therefrom to a point beyond the edge of the guard and extending downwardly in a curved direction under the edge of the guard and having its end inside the guard.

8. In a saw guard, the combination of a guard proper, a yielding member extending under the front edge thereof, transverse pins fixed to the inside of the guard, and a guide having slots through which said pins pass, whereby the guide is kept in position, and having means for holding the inner end of the yielding member.

In testimony whereof I have hereunto set my hand, in the presence of two subscribing witnesses.

CHAS. H. BURBANK.

Witnesses:

ADELARD LAREAU,
PETER JACQUE.