

944,976.

Witnesses:
A. D. Gerking.
Cecil Long.

Inventor:
Ludwig Spady
by Z. Gleisler Atty.

UNITED STATES PATENT OFFICE.

LUDWIG SPADY, OF PORTLAND, OREGON, ASSIGNOR OF ONE-HALF TO ROBERT LUTKE,
OF PORTLAND, OREGON.

KNIFE-GUARD FOR JOINTERS.

944,976.

Specification of Letters Patent.

Patented Dec. 28, 1909.

Application filed March 24, 1908. Serial No. 423,020.

To all whom it may concern:

Be it known that I, LUDWIG SPADY, a citizen of the United States, and a resident of Portland, in the county of Multnomah and State of Oregon, have invented a new and useful Improvement in Knife-Guards for Jointers, of which the following is a specification, reference being had to the accompanying drawings as constituting a part thereof.

This invention relates to that class of devices commonly called jointers, to be found in general use in cabinet-makers' shops, for the purpose of planing or surfacing the pieces of wood to be used in cabinet construction, and in which use such piece of wood is held by hand against a guide-rail while the bottom surface of the same is operated upon by knives attached to a revolving knife-head, and my invention has for its object to provide a simple and efficient guard or shield, which shall be automatically held against the side of the piece of wood being surfaced, and is constantly so positioned as to cover the rotating knife-head so that in case the hand of the operator slipped down while guiding the piece of wood, as frequently occurs, the fingers or hand will merely strike upon the shield and thus be saved from injury by contact with the knife-head.

To this end my invention in its general aspect consists of a spring-controlled arm, in the outer end of which is journaled, in a horizontal plane, a circular, rotatable shield, and said arm is caused by the tension of said spring to bear against the guide-rail of the planer table, and thus is held against the side of the piece of wood being surfaced, and at times covering the aperture in the table-top through which the knife-head operates.

The parts combined in my invention are arranged as illustrated in said drawings, in which,

Figure 1 is a partial top view of the table of a common planer or surfer, of the type referred to; the rotating, transversely arranged knife-head being shown in dotted outline, and my spring-controlled arm and shield being represented as bearing against the side of a piece of wood, the under side of which is being dressed by the knives; Fig. 2 is a partial front elevation of the

planer table with my device applied thereto as in practice; Fig. 3 is a detail showing a top view of the spring-controlled arm, in the outer end of which the shield is rotatably mounted; Fig. 4 is a detail of a cam-arm, by which the tension of the bearing spring is adjusted; and Fig. 5 is a central vertical section of the circular shield.

The letters designate the parts described.

The surfacing machine shown will be recognized as being of the common type. On the projecting ledge or part *a* of the table *a'* a horizontally movable arm *b* is pivoted by a bolt *c*. The outer end of the arm *b* is made with a head *d* and a shoe *e*, having a vertically projecting rib *f*. In the underside of the head *d* is rotatably secured a circular shield *g* by a head stud-pin *h*, the parts being arranged to hold the shield *g* over the aperture *i*, through which operates the knife-head *j*, mounted on a shaft *k*. The rib *f* on the shoe *e* serves to confine the rotatable shield to its horizontal plane; for without the rib *f*, the shield *g*, as the parts become worn in service, might be tilted sufficiently out its horizontal plane to be brought into contact with the knives of the knife-head.

l is the usual rest common to this type of machine, and *m* is the usual adjustable guide-rail.

The rib *f* on the shoe *e* also serves to hold the shield *g* against rotating, when struck by the hand slipping from holding the piece of wood against the guide-rail *m*; the blow of the hand, under the circumstances, tilting the shield *g* sufficiently to bring the under face thereof against said rib *f*.

The bolt *c* is so made as to have the arm *b* rigidly fastened to its upper end, while the central part of said bolt is journaled in the ledge *a*. The lower end of the bolt *c* is made with an integral arm *n*, in which is inserted a set-screw *o*. To the table *a* is bolted a spring *p*, the free end of which bears upon the extremity of the arm *n*; and thus, by the adjustment of the set-screw *o*, the degree of pressure of the spring *p* on the arm *n* may be regulated, and thereby the outer or swinging end of the arm *b* and the shield *g*, thereby carried, positioned as desired, and as required to accommodate the thickness of the piece of wood *q* to be surfaced.

In practice the shield *g* constantly bears

against and slides along the piece of wood, and by so doing the described purpose of my invention is accomplished.

I claim:

5 1. The combination with a surfacing machine, comprising a table having a transverse slot in the top thereof, a knife-head rotating in said slot, and a guide-rail, of a
10 pin vertically journaled in said table-top, and a rigid laterally extending member on the lower end of said pin, a spring arranged to bear on said lateral member, an arm
15 rigidly mounted on the upper end of said pin, a bifurcated head on the swinging end of said arm, the lower member of said bifurcated head constituting a shoe arranged to rest on the table-top, a vertically project-
20 ing rib on said shoe, a circular shield journaled in said bifurcated head of said arm, said shield being adapted to cover the slot of the table, and said arm being arranged to cause said shield to bear against the guide-rail of the table.

2. The combination with a surfacing ma-

chine, comprising a table having a transverse 25 slot in the top thereof, a knife-head rotating in said slot, and a guide-rail, of a pin vertically journaled in said table-top, and a rigid laterally extending member on the lower end 30 of said pin, a spring arranged to bear on said lateral member, an arm rigidly mounted on the upper end of said pin, a bifurcated head on the swinging end of said arm, the lower member of said bifurcated head constituting a shoe arranged to rest on the table-top, a 35 vertically projecting rib on said shoe, a circular shield journaled in said bifurcated head of said arm; said shield being adapted to cover the slot of the table, and said arm being arranged to cause said shield to bear 40 against the guide-rail of the table; and means by which to regulate the tension of said spring.

LUDWIG SPADY.

Witnesses:

T. J. GEISLER,
RALPH R. DUNIWAY.