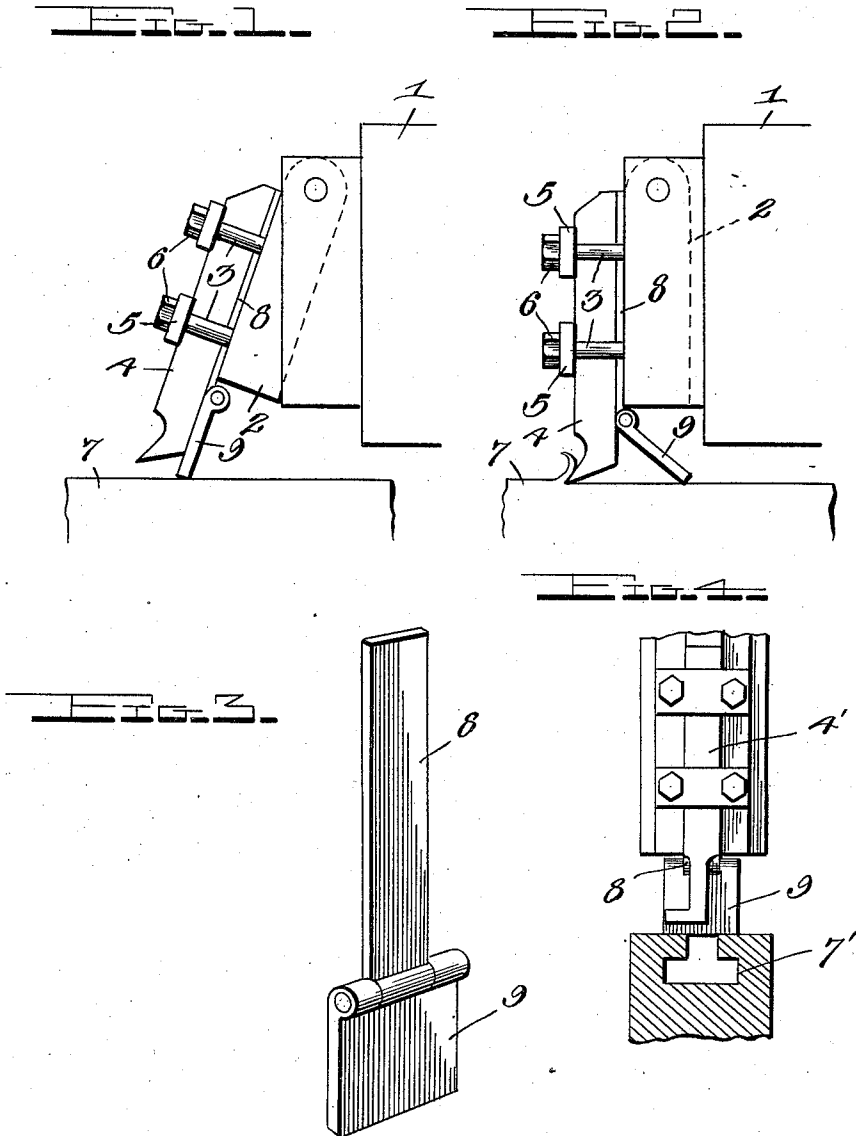


A. D. GREGORY & F. G. SANDERS.
ATTACHMENT FOR METAL PLANERS AND SHAPERS.
APPLICATION FILED JULY 3, 1912.

1,062,396.

Patented May 20, 1913.



Witnesses

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Specification of Letters Patent.

Patented May 20, 1913.

Application filed July 3, 1912. Serial No. 707,532.

To all whom it may concern:

Be it known that we, ARTHUR D. GREGORY, a subject of the King of England, and FRED G. SANDERS, a citizen of the United States, both residing at Albany, in the county of Linn and State of Oregon, have invented certain new and useful Improvements in Attachments for Metal Planers and Shapers, of which the following is a specification, reference being had to the accompanying drawings.

Our invention relates to new and useful improvements in attachments for metal planers or shapers and more particularly to a tool attachment therefor and the primary object of the invention is to provide a device which will prevent the tool from engaging the work upon the return of the former to its initial position.

A further object of the invention resides in the provision of a hinged member disposed between the tool proper and the tool post and which is adapted to project below the cutting edge of the tool, whereby said hinged member will contact with the work upon the return movement of the carriage to prevent the engagement of the cutting edge of said tool with the work.

Still another object of the invention resides in the provision of a device which is extremely simple and durable in construction, inexpensive to manufacture and one which will be very efficient and useful in operation.

With these and other objects in view, the invention consists in the novel features of construction, combination and arrangement of parts as will be hereinafter referred to and more particularly pointed out in the specification and claims.

In the accompanying drawing forming a part of this application, Figure 1 is a side elevation showing our device applied to use on a tool post and disclosing the same in position as the carriage is being returned. Fig. 2 is a similar view showing the tool engaging the work and the attachment in its ineffective position; Fig. 3 is a perspective view of the attachment; and Fig. 4 is a front elevation showing our improved device applied to a tool designed to form a T-slot.

In describing our invention, we shall refer to the drawing in which similar reference characters designate corresponding parts throughout the several views and in which—

1 indicates a carriage or the like of a

planer or shaper which has pivotally carried on the end thereof in the usual or any preferred manner, the tool post 2 and projecting from the front face of the post 2 are a plurality of pins or studs 3 between which is adapted to be held the tool 4. This tool is held to the tool post between the pins or studs 3 by means of the transverse bars or the like 5 which are secured in position over the front face of the tool by means of the nuts 6 engaging the outer ends of said pins 3, but while we have shown and described this particular means of retaining the tool in position on the post, it will be understood that any means may be provided as the same is one of the minor and unessential features of the invention. For a matter of convenience, the work to be operated on is shown in the drawing as 7.

It is a well known fact among machinists and others working in the metal working art, that upon the return of the carriage to its initial position, the cutting edge of the tool carried thereby will be dragged across the surface of the work, thereby nicking or scarring the same in view of the hardness of the metal of which the tool is formed. In order to obviate this difficulty, we provide our improved attachment which comprises an elongated strip 8 formed of any desired material and which is adapted to be clamped between the tool proper and the post therefor, the lower end of the said strip having hinged thereto, a plate 9. The point of hinging between the strip 8 and the plate 9 is disposed immediately below the lower face of the tool post and the plate 9 is of such proportions as to project beyond the sides of and below the cutting edge of the tool, when the latter is effectively positioned on the tool post. From this construction it will be seen that as the carriage is moved in one direction, the cutting edge of the tool will engage the surface of the work to remove a portion thereof, at which time the plate 9 will be swung on its hinging point to be dragged across the surface of the work, as shown in Fig. 2. At the termination of the stroke of the carriage, which is beyond one edge of the work, the plate 9 will drop to a substantially vertical position and upon the return of the carriage to its initial position, said plate 9 will contact with the surface of the work, and thereby swing the tool post 2 on its pivot point and prevent, beyond all possibility, the cutting edge of the tool

being engaged with the surface of said work. The plate 9 may be formed of any desired material which is considerably softer than the metal from which the tool 4 is formed, whereby the dragging of said plate across the surface of the work will not mar or scratch the same, particularly since said plate engages the rough portion thereof.

In Fig. 4 we have shown our improved device applied to a tool 4' designed to form a T-slot 7' in the material and it will be seen from said figure, which discloses the carriage on its return stroke, that said tool is entirely clear of the material. Thus any possibility of damaging the work thus far completed, is prevented.

From the foregoing it will be seen that we have provided a simple, inexpensive and efficient means for carrying out the objects of the invention and while we have particularly described the elements best adapted to perform the functions set forth, it is obvious that various changes in form, proportion and in the minor details of construction may be resorted to within the scope of the appended claims without departing from the spirit or sacrificing any of the principles of the invention.

Having thus described this invention, what we claim is:—

1. In a machine of the class described, the combination with a carriage, a tool post pivoted thereto, and a tool carried by the post; of a plate adjustably carried between

the post and tool and having a pivotal portion thereon projecting below the cutting edge of the latter to prevent said tool from contacting with the surface of the work upon the return movement of said carriage.

2. In a machine of the class described, the combination with a carriage, a tool post pivotally carried thereon, and a tool carried by the post; of a strip clamped between said tool and tool post, and a plate hinged to the lower end of said strip, the hinging point being disposed below the lower face of said tool post and said plate being adapted to project below the cutting edge of said tool.

3. In a machine of the class described, the combination with a carriage, a tool post pivotally carried thereon, and a tool removably clamped to said post; of a strip disposed between said post and tool and secured in position by the clamping means for the latter, the lower end of said strip being disposed to a point slightly below the lower end of said post, and a plate hinged to the lower end of said strip and adapted to project below the lower cutting edge of said tool.

In testimony whereof we hereunto affix our signatures in the presence of two witnesses.

ARTHUR D. GREGORY.
FRED G. SANDERS.

Witnesses:

A. J. EDWARDS,
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