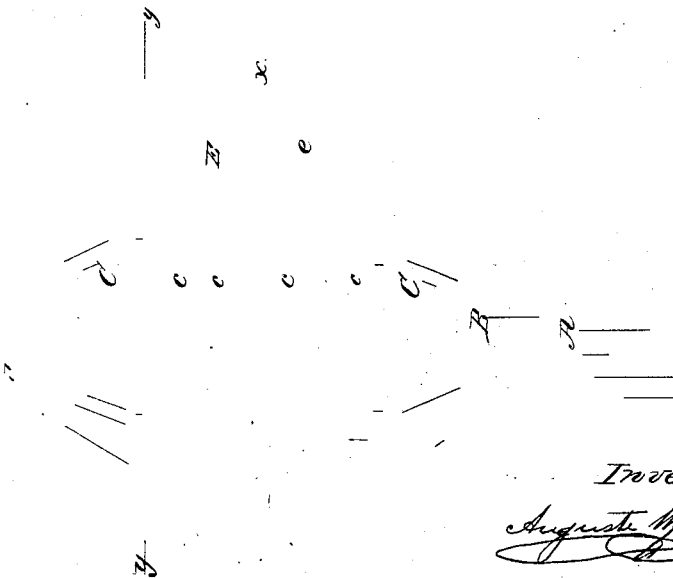
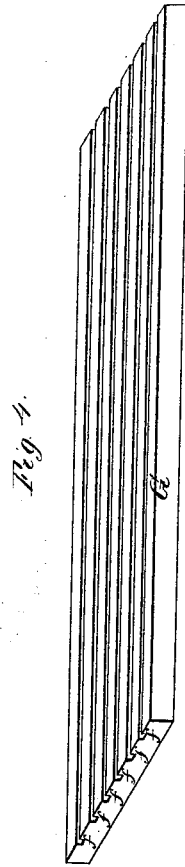
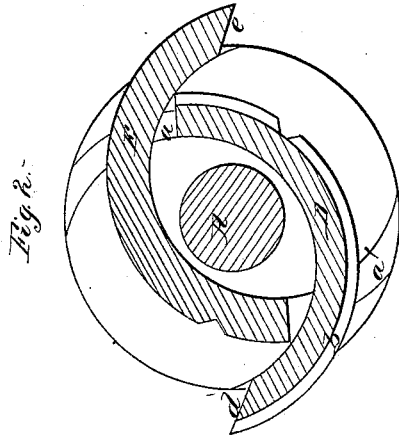
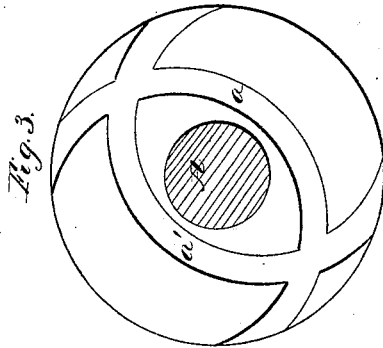


*A. Weiller.*

*Cutter Head.*

*N<sup>o</sup> 39,019.*

*Patented June 23, 1863.*



*Fig. 1.*

*witnesses.*

*M. S. Partridge*  
*Daniel Robertson*

*Inventor*  
*Auguste Miller*

# UNITED STATES PATENT OFFICE.

AUGUSTE WEILLER, OF NEW YORK, N. Y., ASSIGNOR TO EBERHARD FABER,  
OF SAME PLACE.

IMPROVED MACHINERY FOR MAKING WOODEN CASES FOR LEAD-PENCILS.

Specification forming part of Letters Patent No. 39,019, dated June 23, 1863.

*To all whom it may concern:*

Be it known that I, AUGUSTE WEILLER, of the city, county, and State of New York, have invented a new and improved rotary cutter-head for the manufacture of wooden cases for lead-pencils; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is an external view of my invention; Fig. 2, a transverse section of the same, taken in the line *xx*, Fig. 1; Fig. 3, an inner side view of one of the end plates of the cutter-head, the mandrel of the latter being in section, as indicated by the line *yy*, Fig. 1; Fig. 4, a perspective view of a piece of work produced by the cutter-head.

Similar letters of reference indicate corresponding parts in the several figures.

This invention consists in the employment or use of a segmental cutter and a segmental planer, fitted between end plates on a suitable mandrel or shaft, and constructed and arranged as hereinafter fully shown and described, whereby the grooves may be cut in a strip or slab of wood to receive the leads, and the surface of said strip or slab planed in a proper manner to receive the covering, which is glued to the strip or slab over the leads.

The object of the invention is to obtain a cutter-head for the purpose specified which will operate in a perfect manner and admit of being kept in perfect working order, and also set or adjusted with the greatest facility.

To enable those skilled in the art to fully understand and construct my invention, I will proceed to describe it.

A represents a mandrel or shaft, on which the cutter-head is secured. This mandrel or shaft has a shoulder, B, formed on it; and C C are two circular plates, which are placed loosely on the mandrel or shaft, one of which bears against the shoulder B. These circular plates form the end pieces of the cutter-head, and each has two semicircular grooves, *a a'*, made in its inner surface, both of which grooves are shown clearly in Fig. 3. These semicircular grooves, it will be seen, have reverse positions, and they lap over each other, so as to extend around the mandrel or shaft A at opposite sides thereof.

D represents a semicircular or segmental cutter, which is made of steel, and has a series of ledges, *b*, formed on its external or convex side. These ledges *b* may be formed by grooving circumferentially, as shown at *c*, Fig. 1, the exterior of the cutter in a lathe. The ledges *b* have beveled or oblique sides, and their outer edges are flat and parallel with the mandrel or shaft A. The ledges *b*, strictly speaking, are cutters, and their cutting-edges are formed by having one end, *d*, of the cutter D ground off obliquely or in a tangential position, relatively with the mandrel or shaft A, as shown in Fig. 2. This cutter D has its sides fitted in the grooves *a a'* of the two circular plates C C.

E is a semicircular plane, which is made of a piece of steel and formed in a lathe, but is smooth at both sides. The cutting-edge of the planer is formed by having one end, *e*, ground obliquely, so as to have a tangential position with the mandrel or shaft A, the same as the end *d* of the cutter D. The planer E has its sides fitted in the grooves *a'* of the plates C C. (See Fig. 2.) The cutter and planer and plates C C are firmly bound together by means of a nut, F, on the mandrel or shaft A. (See Fig. 1.)

From the above description it will be seen that when the cutter-head is rotated, and a strip or slab, G, of wood (see Fig. 4) passed under or over it, the ledge *b* will cut a series of parallel rectangular grooves, *f*, in the strip or slab G, while the planer E will cut the surface of the strip or slab, into which surface the grooves are cut perfectly smooth, so that a cover may be glued on the strip or slab directly over the grooves and form a neat or tight joint. The grooves *f* receive the leads, and the strip or slab is sawed or slitted longitudinally midway between the grooves to form the pencil-cases, the latter being finished up in any desired form.

It will be seen that both the cutter and planer may be kept always in perfect working order by simply grinding or sharpening their oblique or tangential ends *d e*, and it will also be seen that the cutter and planer may be set so as to cut a thicker or thinner shaving, as desired, by simply adjusting them farther inward or outward in the grooves *a a'*.

It has been stated that the sides of the

ledges *b* were made oblique. This is done in order to have the cutting-edges of said ledges broader than at other points, in order to prevent friction—a contingency which would occur if the ledges were of equal width in their transverse section, as the sides of the ledges would bind against the sides of the grooves.

The implement may not only be readily kept in working order, but it may also be very easily made, as both the cutter and planer may be turned in a lathe, a complete cylinder being turned, and then bisected centrally in a longitudinal direction, so as to form two cutters or planers.

Having thus described my invention, what

I claim as new, and desire to secure by Letters Patent, is—

1. The combination of the semicircular cutter *D* and semicircular planer *E*, as and for the purpose specified.

2. The fitting of the semicircular cutter *D* and semicircular planer *E* between the two plates *C C*, placed on a mandrel or shaft, *A*, and provided with semicircular grooves *a a'* at their inner sides to receive the sides of the cutter and planer, as herein set forth.

AUGUSTE WEILLER.

Witnesses:

M. S. PARTRIDGE,  
DANIEL ROBERTSON.