F. O. JAQUES, JR.

LATHE TOOL.

APPLICATION FILED SEPT. 27, 1910.

**1,034,367.** **Patented July 30, 1912.**

Fig. 1.

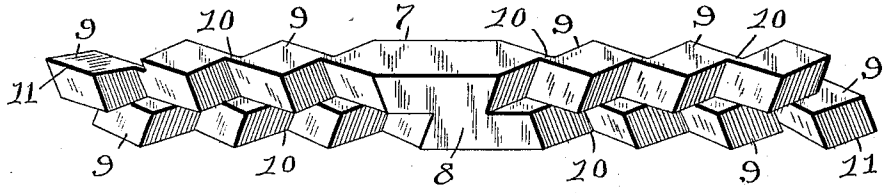



Fig. 2.

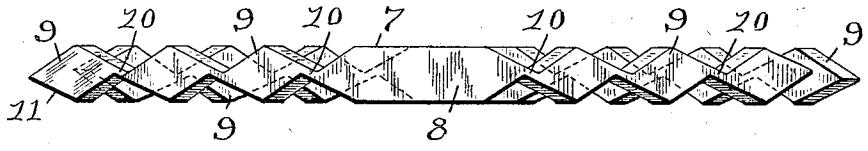



Fig. 3.

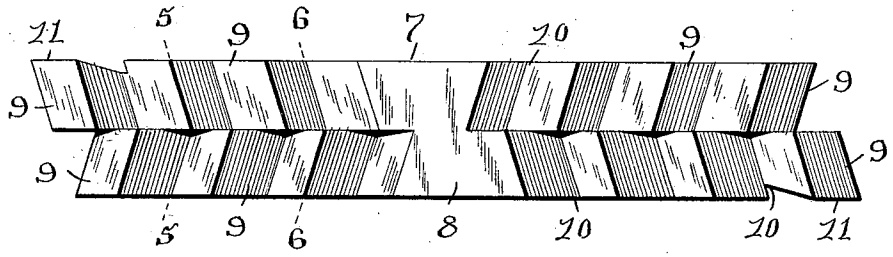



Fig. 4.

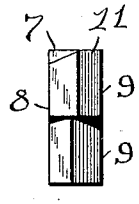



Fig. 5.

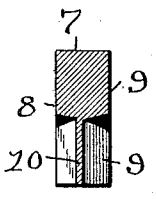
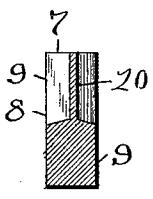



Fig. 6.

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# UNITED STATES PATENT OFFICE.

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## LATHE-TOOL.

1,034,367. Specification of Letters Patent. Patented July 30, 1912.

Application filed September 27, 1910. Serial No. 584,001.

*To all whom it may concern:*

Be it known that I, FERNANDO OSCAR JAQUES, Jr., a citizen of the United States, residing at Cranston, in the county of Providence and State of Rhode Island, have invented a new and useful Improvement in Lathe-Tools and the Like, of which the following is a specification.

This invention has reference to an improvement in tools and more particularly to an improvement in lathe or planing tools.

In the usual construction of lathe tools and the like for turning or planing, the tool has one cutting end or point and when the cutting point of the tool is used up by wear and grinding, the utility of the tool is destroyed. As the body portion of the tool is about nine to one of the cutting portion, this means that about nine tenths of the cost of the tool is lost when the cutting portion is destroyed. This is a material loss where the usual tool steel is used and this loss is greatly increased when the modern high speed tool steel is used, as required under present conditions, the cost of high speed steel being about five to one of common tool steel.

The object of my invention is to improve the construction of a lathe or similar tool, whereby the life of the tool is greatly increased and when the utility of the tool is destroyed the resultant loss is materially reduced.

A further object of my invention is to increase the utility of a lathe tool and the like whereby a plurality of cutting points may be used in succession and from two to four cutting points may be used without loss of time in sharpening or grinding the tool.

My invention consists in the peculiar and novel construction of a reversible lathe tool or similar tool having a plurality or series of cutting points in succession, all formed integral, as will be more fully set forth hereinafter and claimed.

Figure 1 is a perspective view of my improved lathe tool. Fig. 2 is a face view of the tool. Fig. 3 is a side view of the tool. Fig. 4 is an end view of the tool. Fig. 5 is a transverse sectional view taken on line 5. 5. of Fig. 3 through the tool. Fig. 6 is a transverse sectional view similar to Fig. 5 taken on line 6. 6. of Fig. 3 through the tool.

In the drawings 7. indicates my improved lathe tool constructed to have a central body portion 8. preferably of rectangular shape in cross section, a series of preferably diamond shaped cutting points 9. 9. extending outward from each end of the body portion 8. and in alinement therewith, the cutting points 9. 9. being connected together and to the body portion 8. by comparatively short thin connecting webs 10. 10. all formed integral. In the preferred form the tool is constructed two faced with a series of cutting points on each face, one series of cutting points on one face overlapping the series of cutting points on the other face, so that one cutting point on one face is always protruding beyond the cutting point on the other face of the tool, as the cutting points are used up. Also in the preferred form, the series of cutting points are placed in such relation that the ends of the cutting points on one face extend to approximately the center of the cutting points on the other face of the tool, as shown in Figs. 1. and 3. By this construction the tool is materially strengthened against a downward or side strain, the end of the under cutting point extending under and supporting the body of the cutting point that is in use.

In the use of my improved lathe tool, the tool is furnished to the trade with two or more of the cutting points sharpened for use as at 11. 11. Figs. 1. 3. and 4. The cutting points 9. 9. are sharpened when required and when the forward cutting point is worn down by use and sharpening, the remaining portion, if any, is ground off thereby forming the required point on the next tooth in the series. The tool is then reversed to bring the other face upward and the forward cutting point on this face is brought into use. This is repeated as required until all of the cutting points in the series are used up, leaving only the comparatively small body portion 8. of the tool as waste.

It is evident that the tool could be made either single or double faced, the series of cutting points could be on one or both ends of the tool and the shape of the cutting points could be varied, without materially affecting the spirit of my invention.

Having thus described my invention I claim as new and desire to secure by Letters Patent:—

1. A two faced lathe tool or the like having a body portion and a plurality of cut-

ting points extending from the body portion in succession on each face, all formed integral.

2. A two faced lathe tool or the like having a body portion and a plurality of cutting points extending on each face from the body portion in succession and in alinement therewith, all formed integral.

3. A lathe tool or the like having a body portion and a plurality of cutting points extending out from the end of the body portion in succession and in alinement with the body portion and comparatively short thin webs connecting the cutting points to each other and to the body portion, all formed integral.

4. A two faced lathe tool or the like having a body portion, a plurality of cutting points extending on each face from the ends of the body portion in succession and in alinement therewith and comparatively short thin webs connecting the cutting points to each other and to the body portion, all formed integral.

5. A lathe tool or the like having a body portion, a plurality of diamond shape cutting points extending out from the end of the body portion in succession and in alinement therewith and comparatively short thin webs connecting the cutting points to each other and to the body portion, all formed integral.

6. A two faced lathe tool or the like having a body portion, a plurality of diamond shape cutting points extending out from the body portion on each face, the series of cutting points on one face overlapping the series of cutting points on the other face and comparatively short thin webs connecting the cutting points to each other and to the body portion, all formed integral.

In testimony whereof, I have signed my name to this specification in the presence of two subscribing witnesses.

FERNANDO OSCAR JAQUES, Jr.

Witnesses:

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