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TOOL

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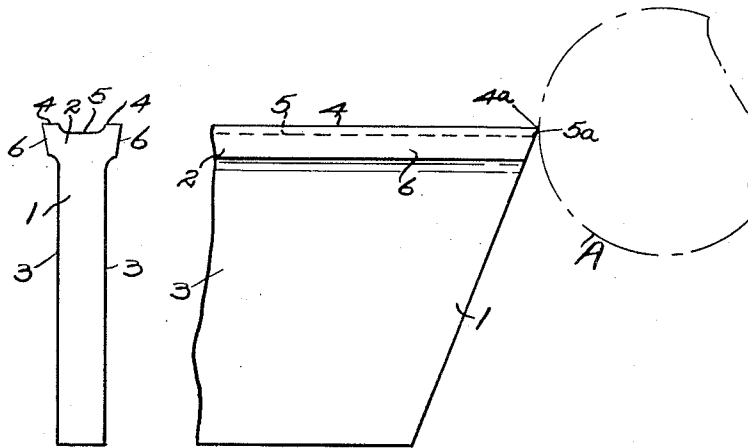


FIG. 1 FIG. 2.



FIG. 3.

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TOOL

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1 Claim. (Cl. 29—95)

This invention relates to improvements in tools, and refers particularly to parting tools for use on lathes, automatic machines and the like.

It is an object of the invention to provide a parting tool by which a plurality of separate, narrow cuts are taken substantially simultaneously to obviate the necessity for the use of chip breakers which frequently have to be employed with ordinary high speed parting tools which take only one cut, due to the fact that the long winding chips which so quickly form are otherwise, when in one piece, large and heavy enough to hinder the proper handling of the machine.

Another object of the invention is to provide such a parting tool having a cutting head extending longitudinally thereof across one extremity of which an easily ground cutting surface is formed; to provide two narrow, aligned marginal faces lengthwise of the head the extremities of which form two narrow, spaced cutting edges; and to form a marked central depression longitudinally of the head between the marginal faces whereby the extremity of the depression constitutes a third cutting edge by which a retarded third cut is taken. Thus I aim to provide a parting tool by which a plurality of narrow, easily broken chips are formed which will not impede the operation of the machine.

A further object of the invention is to provide a parting tool which is cheap and simple to manufacture.

Having thus briefly stated some of the major objects and advantages of the invention I will now proceed to describe an embodiment thereof with the aid of the accompanying drawing, in which:

Figure 1 illustrates a front elevation of the invention, and

Figure 2 is a side view thereof.

Figure 3 shows the front elevation of a slightly modified form.

My parting tool consists of a lower portion or body 1 having parallel sides 3 and a relatively shallow upper portion or cutting head 2 integral therewith. Formed longitudinally of the upper extremity of the head 2 and along opposite margins thereof are narrow, aligned faces 4 which are separated by a depression 5. The width of the head 2 is greatest at its upper extremity and throughout their depth and sides 6 of the head 2, which are downwardly and inwardly inclined to provide clearance, extend laterally beyond the sides 3 of the body 1.

One end of the tool is downwardly and inwardly inclined along a straight line along which the tool may be ground from time to time. Thus a cutting surface is formed transversely across the top of the head 2 one extremity of which consists

of two narrow, spaced cutting edges 4a formed across the aligned faces 4, and a third cutting edge 5a across the depression 5.

Consequently two narrow, separate cuts are taken in the work, diagrammatically indicated at A in Figure 2, and a third delayed cut is taken by the depression cutting edge 5a. The latter cut is retarded both by the fact that the depression is below the faces 4 upon the downwardly and inwardly inclined end of the tool, and also by the fact that whereas the faces 4 are disposed substantially radially to the work A the depression 5 is below that radial line.

It will therefore be clearly seen that I have devised a simple form of parting tool by which a plurality of separate, narrow cuts are taken over the surface across which the parting tool operates. Consequently instead of having a single chip which forms a sufficiently heavy coil to interfere with the manipulation of the machine unless a chip breaker is employed, a plurality of correspondingly narrower chips are formed which may be readily broken and disposed of.

Moreover, while the substantially flat depression cutting edge 5a shown in Figure 1 usually forms a single chip, the depression may be cupped in cross section as shown in Figure 3, in which case it will be found that the chip cut thereby usually breaks intermediately of its width thereby further increasing the number of separate chips and decreasing their width and strength correspondingly.

While in the foregoing the preferred embodiments of the invention have been described and shown it is understood that the invention is susceptible to such further alterations and modifications as fall within the scope of the appended claim.

What I claim is:

A parting tool comprising a narrower body and a wider head each extending longitudinally of the tool and each of uniform width throughout their entire length, the opposite sides of the head being downwardly and inwardly inclined throughout their length, the upper face of the head having flat spaced cutting edges of appreciable width formed longitudinally along its margins and a central depression between said edges, the tool being adapted to be fed longitudinally into rotating work along a line substantially radial to the work axis whereby the length of the line of cut is increased by said depression and the resultant chips broken thereby, and said head having a downwardly and inwardly ground flat face across one extremity across the junction of which said upper face cutting faces are formed.

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