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D. J. MINDHEIM

2,608,698

BURLING TOOL

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FIG 1

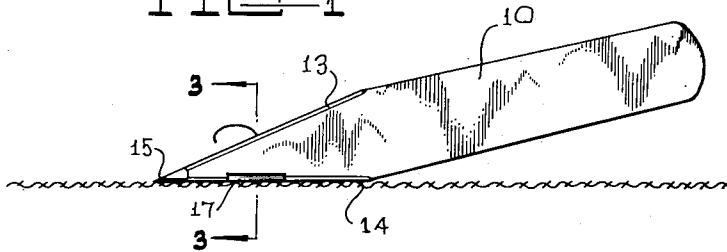


FIG 2

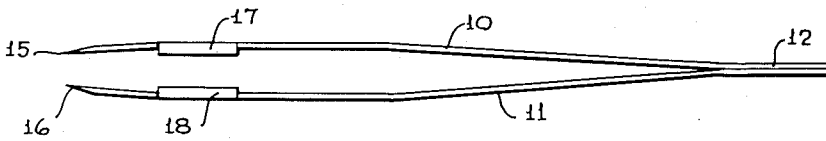


FIG 4

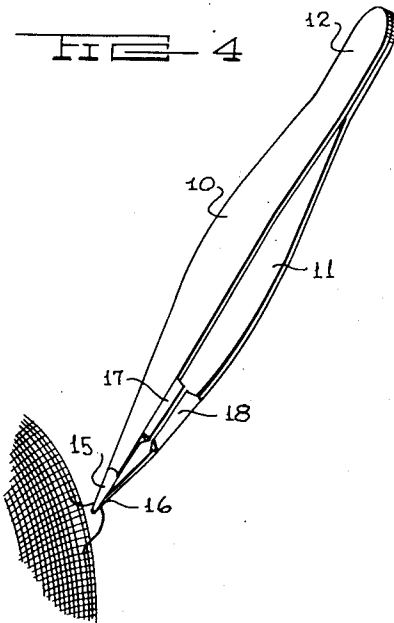
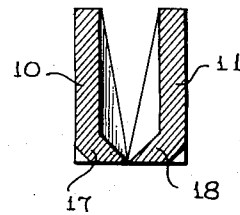


FIG 3



INVENTOR.
DANIEL J. MINDHEIM

BY

McMorrow, Berman + Davidson
ATTORNEYS

UNITED STATES PATENT OFFICE

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BURLING TOOL

Daniel J. Mindheim, Newark, N. J.

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2 Claims. (Cl. 7—14.1)

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This invention relates to burling tools and more particularly to a hand tool for picking and cutting excessive and extraneous material from woven fabric.

It is among the objects of the invention to provide a burling tool in the form of a pair of tweezers having opposed cutting blades thereon so that the slubs, threads, thread ends, knots and other misplaced or extraneous material in a piece of woven fabric can be picked out and cut away to leave the fabric in a smooth and finished condition, which provides the tweezers and the cutting blades or shears in the same tool so that it is not necessary to change tools for cutting and picking operations, which is so designed that the tweezer points close before the cutting blades so that a thread can be held by the tweezers while being cut off at the surface of the fabric by the cutting blades, in which the cutting blades are so shaped and positioned that they will cut fibres at the surface of the fabric but cannot dig into the fabric to cause injury thereto, and which tool is simple, strong and durable in construction, economical to manufacture, easy and comfortable to use, and positive and effective in operation.

Other objects and advantages will become apparent from a consideration of the following description and the appended claims in conjunction with the accompanying drawing wherein:

Figure 1 is a side elevational view of a burling tool illustrative of the invention in operative position on a piece of fabric;

Figure 2 is a top plan view of the tool as illustrated in Figure 1;

Figure 3 is a cross sectional view on an enlarged scale on the line 3—3 of Figure 1; and

Figure 4 is a perspective view of the tool showing the manner of using the tool for removing a loose thread from a piece of woven fabric.

With continued reference to the drawing, the tool comprises two elongated flat legs 10 and 11 having their end portions permanently welded together at one end of the tool, as indicated at 12, and extending in side by side relationship from such welded together portions. At their opposite ends both of the legs 10 and 11 are symmetrically tapered along straight edges, as indicated at 13 and 14 in Figure 1, and terminate in sharp points 15 and 16.

The legs 10 and 11 are formed of specially heat treated spring steel to render them highly resilient and extremely hard and are bowed outwardly away from each other so that the points 15 and 16 are resiliently held apart, as particularly illustrated in Figure 2.

The tool is of a size to fit comfortably into the hand of an operator and the points 15 and 16 can be squeezed together by thumb and finger pressure on the outer sides of the legs 10 and 11

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to grasp a thread or fibre mass on a piece of woven fabric and pull such thread or fibre mass outwardly from the surface of the fabric. The points may also be used for removing extraneous material from the cloth, such as fragments of burrs, stems or other extraneous material which may have been included in the fibre from which the fabric was woven.

Two cutting blade formations 17 and 18 are provided, one on each leg and are disposed at the same side of the tool in mutually opposed relationship to each other. The cutting blade formation 17 extends longitudinally of the leg 10 intermediate the length of the tapering straight edge 14 of this leg and adjacent the point 15, while the blade formation 18 is provided on the corresponding tapering straight edge of the leg 11 and is substantially coterminous with the formation 17.

While the dimensions may be varied within reasonable limits without in any way exceeding the scope of the invention, it has been found that a total length of a tool of slightly over four inches and a displacement of the adjacent ends of the cutting blade formations from the corresponding points 15 and 16 of approximately one half inch have been found to provide excellent results in use.

As is particularly illustrated in Figure 3, each of the cutting blade formations 17 and 18 is integral with the corresponding legs 10 and 11 and the cutting blade formations are of V cross sectional shape providing mutually opposed cutting edges at the inner sides of the legs. The outer edges of the blade formations are flat and are in alignment with the corresponding straight edges of the legs 10 and 11 so that the tapering straight edges of the legs provide a guide or stop which precludes the blade formations from digging into the fabric and injuring the fabric or severing the threads of which the fabric is woven. The cutting edges of the blade formations, however, are flush with the flat outer surfaces of the formations so that the blades will cut at the surface of the fabric and completely remove any excrescences or projections from the surface of the fabric leaving the fabric in a smooth condition.

In using the tool, large bunches or knots of material and extraneous material may be picked from the fabric by the tweezer points 15 and 16 and smaller bunches and knots of fabric and loose threads may be cut off at the surface of the fabric by the cutting blade formations 17 and 18. Because of the outwardly bowed shape of the legs 10 and 11, the points 15 and 16 close somewhat before the cutting edges of the blade formations 17 and 18 are brought together. With this arrangement, a loose thread may be grasped between the tweezer points and stretched away

from the fabric and then engaged between the cutting blade formations and cut off at the surface of the fabric in a single operation.

The material of the tool is made extremely hard so that the cutting edges of the blade formations will not become blunted or dulled in use and resiliency of the legs of the tool is such that the cutting edges of the blade formations can be brought together to sever the excess fibres without such excessive manual pressure as will result in undue fatigue.

The invention may be embodied in other specific forms without departing from the spirit or essential characteristics thereof. The present embodiment is, therefore, to be considered in all respects as illustrative and not restrictive, the scope of the invention being indicated by the appended claims rather than by the foregoing description, and all changes which come within the meaning and range of equivalency of the claims are, therefore, intended to be embraced therein.

What is claimed is:

1. A burling tool comprising a pair of flat legs of resilient material firmly secured together at one end of said tool and having mutually opposed pointed ends at the other end of the tool, said legs being shaped to resiliently hold said pointed ends spaced apart, and cutting blade formations disposed one on each leg adjacent the pointed end thereof and extending along the corresponding edges of the associated legs, said blade formations being disposed in mutually opposed relationship at the same side of the tool and each having a flat surface in align-

ment with the corresponding edge of the associated leg, and said legs being longitudinally curved so that said pointed ends close before said blade formations.

2. A burling tool comprising a pair of tweezers including a pair of coextensive legs of elongated rectangular cross sectional shape rigidly secured together at one end in face to face relationship and pointed at the other end of the tool, and a pair of mutually opposed and coextensive cutting blade formations provided one on each of said legs intermediate the length thereof and at the same side of said tool, each of said legs having a straight edge portion at the location of the corresponding cutting blade formation, and each of said blade formations having a flat outer surface in alignment with the straight edge portion of the corresponding leg and a cutting edge along the edge of said flat surface proximate to the opposed blade formation, said blades being located near the pointed ends of said legs, and said legs being longitudinally curved so that the pointed ends thereof close before said blade formations.

DANIEL J. MINDHEIM.

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