No. 742,946

PATENTED NOV. 3, 1903.

J. W. WINEMAN & A. D. MADDOX.

KNIFE FOR CUTTING LEATHER.

APPLICATION FILED MAR. 25, 1903.

NO MODEL.

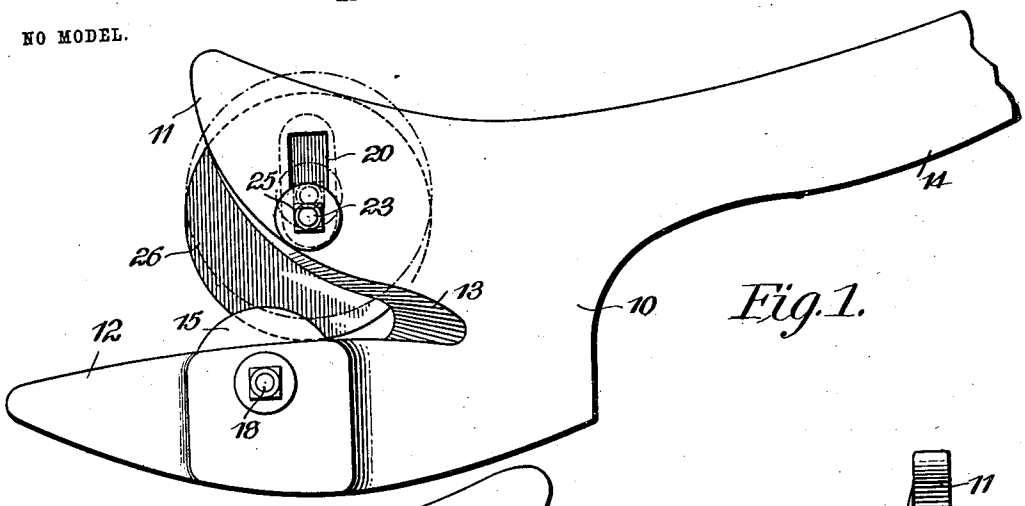


Fig. 1.

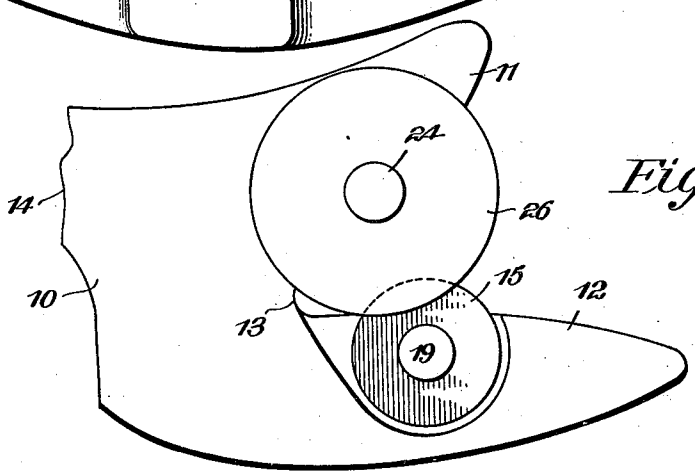


Fig. 3.

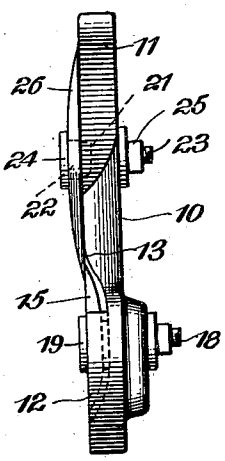


Fig. 2.

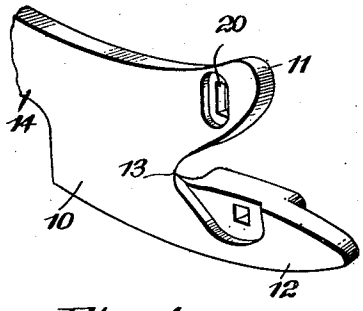


Fig. 4.

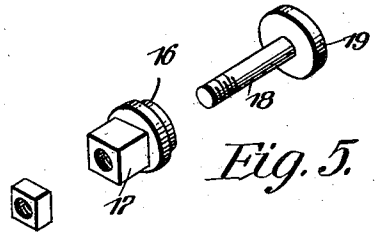


Fig. 5.

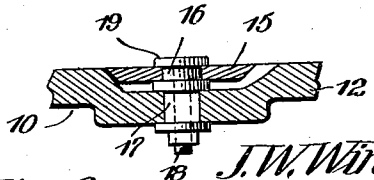


Fig. 6.

Witnesses
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Attorneys

THE NORRIS PETERS CO., PHOTO-LITH., WASH., D. C.

UNITED STATES PATENT OFFICE.

JOHN W. WINEMAN AND AARON D. MADDOX, OF FLATROCK, ILLINOIS.

KNIFE FOR CUTTING LEATHER.

SPECIFICATION forming part of Letters Patent No. 742,946, dated November 3, 1903.

Application filed March 25, 1903. Serial No. 149,542. (No model.)

To all whom it may concern:

Be it known that we, JOHN W. WINEMAN and AARON D. MADDOX, citizens of the United States, residing at Flatrock, in the county of Crawford and State of Illinois, have invented a new and useful Knife for Cutting Leather, &c., of which the following is a specification.

This invention relates to implements employed for cutting leather, cardboard, oil-cloth, and the like, and has for its object to simplify and improve devices of this class and which is adjustable to render it capable of cutting heavy or light material, as required.

The invention consists in oppositely-disposed rotatively-mounted cutting-wheels adjustable radially to increase or decrease the overlaps to adapt them to cut heavy or light material.

The invention further consists in oppositely-disposed rotatively-mounted cutting-wheels of different diameters.

The invention further consists in certain novel features of construction, as hereinafter shown and described, and specified in the claim.

In the drawings illustrative of the invention, in which corresponding parts are denoted by like designating characters, Figure 1 is a side elevation from one side, and Fig. 2 is a side elevation from the opposite side, of the implement. Fig. 3 is a front elevation. Fig. 4 is an enlarged perspective view of the "supporting-head." Fig. 5 represents the parts forming the bearing for the cutting-wheels in perspective and disconnected. Fig. 6 is a sectional detail of the bearing for the smaller cutting-wheel.

The improved implement consists of a supporting-head 10, having spaced reversely-flaring guide-jaws 11 12, the juncture of the jaws at 13 being knife-edged upon one side, as shown, to form the "divider" for the material after passing the cutting-wheels, and the handle member 14, attached to and extending rearwardly of the head, as shown. The lower jaw member 12 is provided with a recess in one side, in which a cutting-wheel 15 of relatively small diameter is rotatively mounted, being supported upon a bearing 16, carried by a stud 17, supported in an aperture in the bottom of the recess by a bolt 18, the head 19 of the bolt serving to retain the wheel in position upon the bearing, as will be understood. By this means the wheel is provided with a comparatively large bearing and supported by a shoulder upon the stud at one side and the bolt-head upon the other side, whereby it is free to rotate upon its bearing, while at the same time firmly supported relative to the jaw 12, with its cutting edge flush with the face of the jaw. The bolt 18 can thus be set up very tightly without cramping the wheel or interfering with its free rotation. The opposite jaw member 11 is provided with an elongated aperture 20, extending transversely of the jaw, and fitting adjustably in this aperture is a stud 21, having a bearing 22 and bolt 23 with enlarged head 24, and a nut 25 similar to the bearing-stud and bolt, by which the cutting-wheel 15 is supported and adapted to support the opposing cutting-wheel 26, which is of larger diameter than the wheel 15. The stud 21 and its attachments will be disposed to support the larger cutting-wheel in position to overlap the smaller wheel, and by means of the elongated form of the aperture 20 it is obvious the extent of this overlap may be regulated as may be required. Thus when thin material is to be cut the stud 21 will be adjusted radially toward the wheel 15, so as to increase the extent of the overlap, and when heavier material is to be severed the position will be reversed and the extent of the overlap decreased, and thus obviate the necessity for bending the severed portion, except to a limited extent, as will be obvious. By this simple means the device may be quickly and easily adapted to cut material of any desired thickness without changing the structure or detaching any of the parts. By merely forcing the cutting-wheels forward against the material along a predetermined line the severed material is divided by the knife-edge 13 and carried to the rear free from the implement.

It is important that the divider 13 be as close as possible to the cutting-point, and by forming one of the cutting-wheels much smaller than the other and so locating its journal that its forward rim operates in substantial peripheral alinement with the for-

ward rim of the larger wheel, as shown, the forward point of the knife-edge 13 may be advanced materially nearer the cutting-point between the wheels, as will be obvious. This is an important feature of the invention and adds materially to the efficiency of the implement by dividing the severed material at a relatively close point to the knives, and thus greatly aids the cutting action.

The parts may be constructed of any relative size or proportions and of any suitable material.

The cutting-wheels may be sharp-edged, as shown in Fig. 3, for cutting the softer materials, or shear-edged, as shown in Fig. 6, when employed for cutting metals or other hard materials, and by forming the cutting-wheels to run upon the detachable studs, as shown, wheels of different forms may thus be readily substituted, as will be obvious.

Any form of grip-handle 14 may be employed, and we do not, therefore, wish to be limited to any specific form of this part of the device.

The head portion 10 and handle portion 14 may be formed of one piece, if preferred.

Having thus described our invention, what we claim as new, and desire to secure by Letters Patent, is—

In a cutting-knife, the combination of a supporting-head having reversely-disposed guiding-jaws, one of said jaws having a slot extending transversely therethrough, a cutting-wheel rotatively mounted upon the other jaw, a stud adjustably supported within said slot, and a cutting-wheel rotatively mounted upon said stud with its cutting edge overlapping the first-mentioned cutting-wheel.

In testimony that we claim the foregoing as our own we have hereto affixed our signatures in the presence of two witnesses.

JOHN W. WINEMAN.
AARON D. MADDOX.

Witnesses:
W. S. TOHILL,
IRA W. CAWOOD.