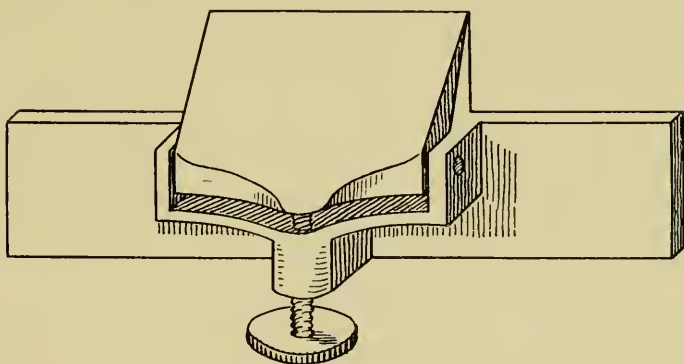


A NEW FORM OF MICROTOME KNIFE.

BY E. G. MARTIN.

The writer has been much impressed, both as student and teacher, with the great waste of energy and time involved in keeping microtome knives in satisfactory condition for use. In every biological laboratory the care of these knives is recognized as constituting a serious drain upon the student's time. In most undergraduate laboratories there is also apt to be more or less disposition to use poorly sharpened knives, rather than take the trouble to put them in satisfactory condition, with the inevitable



MICROTOME KNIFE.—In this drawing the two blades are shown clamped together in position for use, but without the cutting blade inserted. When the set-screw is loosened the front blade falls forward far enough to allow of the insertion of the cutting blade.

consequence of inferior sections. In order to insure that the student shall always be provided with a satisfactory cutting edge, and at the same time to avoid the expenditure of time necessary when the usual form of knife is used, the writer devised the instrument herein described for use in the biological laboratories of Purdue University.

The apparatus makes use of the patent safety razor blades which are now on the market at a moderate price. The form for which this instrument is adapted is the one which first appeared on the market. The

device consists essentially of a stout blade split lengthwise in a plane passing through the cutting edge, and having the two parts hinged together at the side away from the cutting edge. By means of a setscrew the two parts of the blade may be firmly pressed together and held so. The thin blade, which is to be used as the actual cutting edge, is placed in position between the two parts of the supporting blade with its edge slightly projecting, and is firmly clamped there by tightening the setscrew. The instrument is then ready for use. For the details of structure the reader is referred to the accompanying drawing.

The device is adapted for microtomes, either of the Minot form or the Bausch & Lomb sliding form. In the author's hands it has cut as good sections with either instrument as he has ever gotten with the best knives of the old form. The capacity of the knife is limited by the shortness of the blade, but for practically all student work it will be found ample. The instrument possesses the great advantage that each student can provide his own cutting edge, the cost being trifling, and thus the confusion of having a number using the same knife is avoided.