

On a REVERSIBLE COMPRESSORIUM with REVOLVING DISK.
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FREQUENT use of the ordinary live-box has made us all fully aware of its attendant evils. Valuable specimens (seen perhaps for the first time) are frequently crushed in the endeavour to arrest their active movements, thus showing us the necessity of devising means of applying a gradual pressure which will prevent this danger, and also be of service where objects are required to be flattened when under observation.

This requisition has been completely met by the compressorium of Messrs. Ross; there is, however, one great disadvantage attending this form, that of being *non-reversible*, which is of the utmost importance, as it is only possible to examine one side or surface of the specimen, instead of all its parts.

There are two or three reversible forms at present in use, all of which, however, necessitate removal from the stage of the microscope, to be readjusted or turned over, and in consequence, the object has again to be sought for, and if small, this is not only an uncertain and tedious operation, but an unnecessary tax upon the eyes and patience.

In the arrangement I am about to submit to the Society, I think I may say the advantages of both kinds are combined, with far greater facilities in regard to reversibility and ease of manipulation, a single motion being sufficient to show both surfaces of the object almost instantaneously, without the slightest disarrangement of position or of focus, and in addition, it is furnished with a revolving disk for the examination of dry objects.

It is available for all modes of illumination, the Lieberkühn requiring the addition of a small movable arm of blackened metal carrying a central disk or spot, which can be turned aside when not employed, as in Liston's dark walls. It is also applicable to objectives of any depth.

This compressorium consists of two circular metal frames, the inner surface of each being grooved (in a similar manner as in the mounting of spectacles) to receive a thin glass, which is held in position by means of a thumb-screw, and in event of breakage, fresh glasses may be instantly applied by the most inexperienced, by simply reversing the screw and dropping another into the recess.

For the purpose of placing the object in position, the upper disk is made to turn aside by a lateral movement, after which it is again brought above, and pressure applied by a milled-head and fine screw, which depresses the top frame to the point of contact, or as near as may be desirable.

This movable frame is carried on a cylinder, within which is a closely-fitting spring box containing the screw, surrounded by a spiral steel coil, which separates the glasses when it is required to withdraw the specimen.

These tubes working together like the parts of a telescope secure a perfectly parallel motion, while the opposing screw and spring produce a remarkably even pressure.

The box carrying the frames is mounted on an arm which freely turns, for the purpose of reversing the object. At the



opposite end of the box is placed the revolving disk, formed by enclosing within a metal ring an inner tube filled with cork, the edges of the tube being turned over, that of the outer ring in the form of a flange, which being milled is easily turned in any direction. The arm is supported upon a metal pillar, made to rotate on a stout brass frame or stage-plate, three inches by two, which is cut away in the middle to admit the under-stage illuminating apparatus.

This compressorium may be procured of Mr. Swift, 15, Kingsland Road, to whom I have given the right of manufacture.