disease spreads by propinquity (juxtaposition); and the scar-tissue of an old tuberculous ulcer is the favourite place for new nodules to form in.

The only two tissues that appear able to resist actual disintegration, among the *débris* of tubercular ulcers, are bone and elastic tissue. These, although dead and separated, for long retain their characteristic microscopical features unchanged.

[To be continued.]

ON PARAFFO-STEARINE:

A SUBSTITUTE FOR STARCH, PLASTER OF PARIS, AND SUCH-LIKE SUBSTANCES, IN BANDAGES AND SPLINTS.

By JAMES STARTIN, Esq., F.R.C.S.,

Senior Surgeon to the Hospital for Diseases of the Skin, etc.

FOR a few months past I have been using what appears to me to be an inexpensive, useful, cleanly, elegant, and efficient desideratum, in the treatment of varicose veins and diseased joints, instead of strapping, and also in all maladies or injuries where rest, equable support, and solidity of the parts affected, are required. This consists in immersing "Domett flannel", "Welsh flannel gauze", the woven elastic or other bandage, or felt, either the common carpet felt or that prepared for surgical purposes, in a combination of equal parts of rock paraffine and stearine, as used for candles, which may be coloured to a flesh-tint with alkanet root, and liquified to a little beyond the melting-point (160° Fahr.), so as to render the composition of a temperature that may be readily manipulated without injury to the hand or part on which it is applied. Rollers or felt, the latter cut into the shape of the splint required, are to be saturated with the above melted composition, and applied whilst warm and flexible to the limb or joint; when, if needed, further strength and solidity may be given by varnishing a portion of the melted composition over the splint or bandage with a painter's brush, and afterwards smoothing the whole with the palm of the hand, until it assumes the surface of ivory, or the well known appearance of a paraffine or stearine candle. A fold of linen, dipped in cold water, is finally to be passed round the bandage or splint, which immediately solidifies the melted paraffo-stearine, when the application is complete; and the wet linen may be continued as an evaporating lotion, if desired. Into this bandage or splint, openings may be readily cut by means of scissors curved on their cutting edge into the segment of a circle, or bent to an obtuse angle; the melted composition being afterwards applied over the cut edges of the opening, so as to form a complete solid case, allowing the escape, through such openings, of discharges, and the application of dressings. It will be perceived that, by dividing the paraffo-stearine bandage, and removing, say half an inch, or separating it into halves, and trimming the edges in the usual manner, splints will be formed having the exact configuration of the part to which they are to be applied, and that these splints can be lined with flannel, wash leather, etc., and strengthened with the melted paraffo-stearine to any extent required.

Mr. Ewen, Jermyn Street, the well known plaster and bandage manufacturer, has undertaken to prepare and furnish these appliances, accompanied by directions

for their employment.* Each bandage will be found soaked in paraffo-stearine, with a portion of the prepared composition in its containing canister, for varnishing the bandage or splint, if needed, *after it has been tightly and evenly rolled, or applied to the affected part.* The felt is supplied in sheets of convenient size, saturated with the composition, from which the splints can be cut, and after they have been moulded to the part requiring them as described.

All that is needed before employing these appliances, as prepared ready for use, is to put the canister containing the bandage and a portion of the paraffo-stearine for varnishing into boiling water until liquified; and the piece of prepared felt may be held before a fire or immersed in water a little below the boiling point, until it acquires the requisite flexibility, when it can be fixed where required by the ordinary procedure, varnished and finished by the aid of the canister of paraffo-stearine and brush sold with it, and finally solidified by surrounding it with linen dipped in cold water. Or, the whole of the appliances described can be readily extemporised by the aid of a pound or two of paraffine or stearine candles, a jug or jar in a saucepan of boiling water for melting the same, a rolled flannel, Domett, or other bandage, and a shaving-brush; or, should a splint and not a bandage be preferred, a strip of felt carpet, cut into the required shape, and also rolled together, so as to be immersed in the melted candle composition in the jar.

I have found that the best mode of procuring the stearine, or rock paraffin, when a moderate quantity only is required, is to purchase the candles (so-called) from any respectable tradesman or the candle-companies, asking for the stearine candles used for India, the melting point of which is about 157° Fahr. (the cost is one shilling a pound); or the rock paraffine, which melt at 135°, and cost the same price, at Messrs. Neighbour and Sons, Regent Street. I have observed that a mixture of the two sorts of candles is the most suitable; but either one of them can, of course, be used separately. If this be done, however, the paraffine should be employed in winter and the stearine in summer; and I may observe that all the bandages and splints may, by remelting, be used a second or third time, thus rendering them amongst the most economical of applications; and it may also be well to mention that, when the removal of a bandage is required, it may be at once softened and taken off by brushing it over with any of the benzines used for cleaning gloves; that of Farey of Regent Street being the most suitable.† Each variety of benzine mentioned, according to my experience of several years, will be found a most useful surgical accessory, not only to clean the skin and hair from all their natural or acquired oily or sebaceous secretions, but also to remove grease, plasters, etc., from the cutaneous surface without causing local irritation; and, for these purposes, I have much pleasure in introducing it as a therapeutic agent to the profession, which has the property (as I often say to my patients) of cleansing a living skin as effectually as a dead one; and for such purposes, I doubt not, it will come into general requisition, perhaps even as extensively as glycerine, which I introduced twenty-four ago, and which I have lived to find the subject of memoirs and special treatises advocating its employment for the purposes for which I originally recommended it, without even the mention of my name.

* They will also be prepared by Messrs. Savory and Moore of New Bond Street.

† Purified Benzine can also be obtained of Messrs. Taylor of Vere Street, Savory and Moore of New Bond Street, Waugh of Regent Street, etc.