On Lupus vulgaris, or "The wolf" / by Balmanno Squire.

ON

LUPUS VULGARIS;

OR

"THE WOLF."

BY

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ON LUPUS VULGARIS.

LUPUS VULGARIS (or *Lupus*) commences in the form of brown-red perfectly flat spots of the size of a pin's head. On pressing one of these with the finger tip it is found that the spot cannot be recognised by the touch, either by reason of any elevation or of any distinctive induration of the spot. On suddenly removing the finger-tip it is found that the spot has not disappeared under the pressure, but has merely changed its colour (for the moment) from brown-red to a tawny yellow hue without losing its distinctness. If an attempt be made to dig or scrape the spot out, by means of a very small curette, it is found that the spot offers no resistance to the instrument but comes away like jelly to a depth corresponding to the entire thickness of the skin. Such a spot constitutes what may be termed the elementary lesion of Lupus and is known as the *Lupus-nodule*. If the scraped-out substance which has come away in the hollow of the curette be closely inspected it is seen to be very moist and very gelatinous-looking, not however transparent and colourless but, semi-opaque and of a faint tawny-yellow hue. If now a similar operation be attempted with the curette on any healthy portion of the skin it will be realized how markedly the toughness and resistance of the healthy skin contrasts with the softness and (so to speak) rottenness of the Lupus-nodule.

From such a beginning originating in one or more places the disease gradually spreads by the increase in size of the flat brown-red spots, by the blending of adjacent spots so as to form a patch and by the development of new spots in the immediate or near neighbourhood of the original ones. On the patch, after a while desquamation takes place; the scales that appear are white and opaque or greyish-yellow and adhere pretty firmly to the skin beneath. The patch spreads very slowly at the circumference while the centre heals and becomes a thin polished slightly depressed white indelible scar. The cicatrization takes place without any preceding ulceration and is the effect of intersticial absorption. This, the simplest phase of the disease, is the condition to which the term Lupus erythematosus properly belongs.

In another phase of the disease the gradual growth of the nodules causes them at length to project above the surface of the skin in the form of so-called tubercules (Lupus tuberculosus). These tubercules are of a brown-red colour and are soft elastic elevations of a size varying from that of a hemp-seed to that of a pea. Their arrangement may be scattered or clustered. In time they become covered with flaky desquamative epidermic pellicles (Lupus exfoliativus), and eventually after a long continuance may gradually dwindle and disappear without breach of surface leaving in their place a smooth and slightly depressed cicatrix.

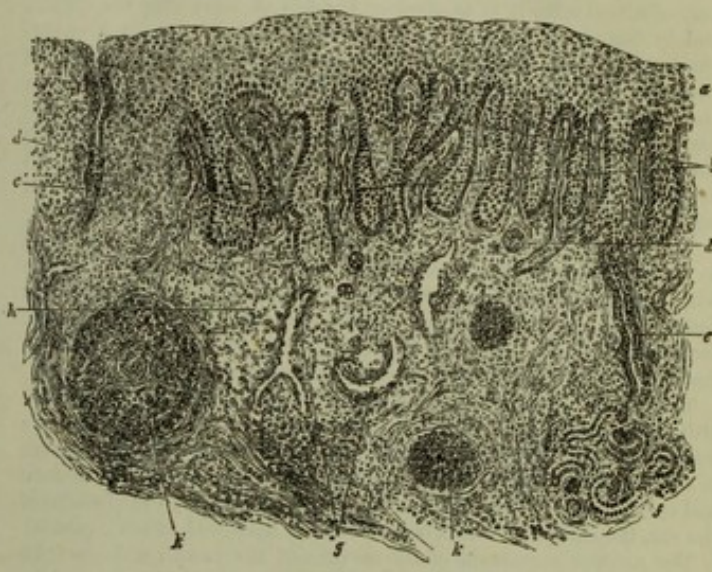
Or breach of surface and ulceration of the tubercules takes place (Lupus exulcerans). This is the condition represented in the coloured illustration—the portrait of a girl aged 12 years who was admitted on December 8th, 1881, as inpatient of the British Hospital for Diseases of the Skin. The Lupus-ulcers, which are sometimes shallow sometimes deep (Lupus exedens), have ragged edges. Their floor is formed of pale coarse flabby granulations and secretes copiously a thin milky pus which concretes into white, or yellow, or yellowish-green, or dark-brown crusts. These crusts, which are always dry and hard and considerably raised, are sometimes of fairly large extent and (when so,) present an irregularly uneven and somewhat rocky appearance. If one of the larger scabs be detached it is found to be quite hollow on its undersurface: the interval between the dome-like scab and the floor of the ulcer being filled with quite a notable accumulation of white sero-pus. After long persistence the crusts fall off and disclose a white opaque and sometimes puckered cicatrix which has the property of gradually but rigidly contracting so as to occasion in some situations the most serious deformities. Sometimes however the coarse granulations that form the floor of the ulcer become firm hard and dry and acquire a thick tough layer of epithelium so as to constitute a warty growth (Lupus verrucosus). This warty condition is succeeded, like all the varieties of Lupus, by a permanent scar, with or without previous ulceration. Sometimes there is considerable infiltration of the connective tissue beneath the brown-red Lupus-patch, so that the whole patch is quite notably raised up above the level of the surrounding skin (Lupus hypertrophicus).

When the margin of a Lupus-patch has at length come to encircle a considerable tract of skin and the process of cicatrization has advanced so considerably as to occupy almost the whole of the included area, the margin becomes broken into segments of crescentic shape (Lupus serpiginosus).

The situations most commonly occupied by Lupus are the face and the lower parts of the limbs, but it is met with also on other parts of the skin. The region which is most rarely visited by it is the hairy scalp which seems endowed with a special capacity for resisting the invasion of Lupus. In the case however of bald or partially bald persons this special exemption is lost so far as regards the bald portions of the scalp.

The face is the region which is by far the most liable of all to the invasion of Lupus. In a large proportion of cases the disease is absolutely restricted to the face and in the majority of cases the face is one of the regions affected. It is on the front of the face namely *the lower half* of the front of the face that the disease generally

FIG. 1.



LUPUS.

a, epidermis; *b*, club-shaped anastomosing processes of the epidermis penetrating deeply into the corium; *d*,*d*, giant-cells; *e*, and *e'*, sweat-ducts; *f*, sweat-glands; *g*, larger vessels with cell-proliferation of all their layers; *h*, network proceeding from the adventitia; *k*, Lupus-nest; *k'*, large Lupus-nest proceeding apparently from a vessel, or from a sebaceous follicle? (Neumann.)

commences; most commonly on some portion of the lower half of the nose, preferably on one of the alæ nasi; but very often on some part of one of the cheeks, such part being usually either on a horizontal level with the alæ nasi or below that level. From these and neighbouring foci which subsequently become developed (mostly on *the lower half* of the front of the face) the disease, in its slow and tedious progress, spreads itself, in a patchy manner, first over the *lower* half of the front of the face and thence in all directions; namely *downwards* (over the lips and lower jaw) to the front of the neck, extending also into the nostrils and into the mouth; *upwards* over the upper part of the nose, the upper part of the cheeks, the eyelids (and palpebral conjunctiva), and the forehead, and *backwards* over the temples and the ears and the sides of the neck. As to the phases under which Lupus may present itself in the region of the face: it may occur in the erythematous, the tuberculous, the exfoliative, the superficially ulcerative, the rodent, the warty, or the hypertrophic phase: or it may occur in one phase at one portion of the face, and in another phase at some other part of the face, and so on. On the neck it has a tendency to assume the serpiginous shape.

Lupus of the face is not uncommonly complicated with chronic

enlargement and cheesy degeneration of the submaxillary lymphatic glands, which sometimes suppurate and burst, leaving permanent sinuses.

The nose is the feature which is most frequently invaded by Lupus and it is attacked not only from without but also from within. The disease, spreading over the surfaces of the alæ and tip of the nose, invades also the under surface of the nose, that is to say the margins of the orifices of the nostrils, and thence extends up the mucous membrane that lines the nostrils, so that at length both the mucous membrane on the one side of the cartilages of the nose and the skin on the other side of them undergo complete degeneration. The non-vascular cartilage both on its inner and outer surfaces becomes thus completely deprived of the vascular coverings on which it depends for its subsistence and ulcerates away little by little as the disease spreads upwards so that at last the whole of the *cartilaginous* part of the nose (cartilaginous septum included) disappears absolutely leaving the patient's face "flat" with an oval opening where the nose should be.

On the eyelids the invasion of Lupus produces the same effects that it does on the nose, that is to say they become totally destroyed and eaten away. The explanation of this is quite the same as in the case of the cartilaginous portion of the nose. In the case of the lower lid the contractile property of the scar left by the pre-existing disease on the cheek draws the remains of the conjunctiva tightly downwards. In this condition the patient is absolutely prevented from ever closing the eyes. As a result the permanently-exposed remains of the conjunctiva are always intensely injected and of a livid red colour. There ensues also an effect of a far more serious kind. The cornea becomes deprived of the necessary ministrations of the lids, part of whose office it is to conduct the flow of tears over the cornea, and by their occasional blinking to wash dust from it. As a consequence of this deprivation the cornea is exposed to the lodgment of dust on it, which soon sets up ulceration and opacity of the cornea and so induces complete loss of vision. Later on perforation of the cornea takes place with all its consequences and, since in the complete absence of eyelids none of these conditions are remediable, the eyeball at last becomes so thoroughly disorganized as to necessitate its removal.

The lips are often invaded by Lupus. But, although Lupus is apt to invade the cavity of the mouth and so to attack the lips both from within and without, they are never destroyed and eaten away as befalls the nose and eyelids. However the contractile cicatrix retracts and everts the lips somewhat, so that when the mouth is at rest the lips do not meet but are held somewhat apart.

The pinnæ of the ears when attacked by Lupus are eaten away, although never quite so completely as the nose and eyelids. More or less of a stump of the pinna is always left standing. The explanation of this destruction of the pinnæ is the same as in the case of the nose and eyelids. The disease often extends some distance into the meatus of the ear, the calibre of which becomes much narrowed in consequence.

The mucous membrane of the cavities of the mouth and pharynx is often invaded by Lupus. Here it originates generally from independent foci, and not as a continuation of the disease on the lips.

The larynx is sometimes invaded by Lupus.

The limbs are often attacked by Lupus. On them it may exhibit itself in any of its phases. Sometimes the disease is spread over a considerable proportion of the whole surface of a limb. It is then wont to assume the serpiginous shape. In such case the extensive scars that are produced have the effect of limiting very considerably the movements of the joints near which they may be situated. Lupus of the limbs (and of the nates) is also especially apt to assume the hypertrophic phase and to this is often superadded the warty phase. These two phases of Lupus attain their highest degree of development on the leg and foot, where the considerable infiltration of the connective tissue and the coarseness of the warty growth causes the swollen limb to assume something of the appearance proper to Elephantiasis (arabum).

The hands and fingers are liable to be affected both on their palmar and dorsal aspects and indeed over the whole extent of their surface. When any one of the fingers becomes completely invested by the disease it becomes by slow degrees completely destroyed so that the hand is sometimes left without any vestige of either fingers or thumb. The feet and toes when attacked are affected in manner similar to the hands and fingers.

In some individuals Lupus evinces a special tendency to develop itself around the edges of old (pre-existing) scars and sinuses.

Occasionally erysipelas occurs as an accidental complication of Lupus. Cases of this kind that have come under my observation do not, however, support the statement, made by various writers, that erysipelas cures Lupus.

Sometimes, in later life, epithelial cancer becomes developed on a patch of Lupus. This occurrence, which has been recorded by several observers, has come also under my own notice.

Of the causes of Lupus our knowledge is only of the negative kind. Of the influence of sex and of age in its causation it can be stated that the disease makes its first appearance in infancy or in early childhood and is somewhat commoner in females than in males. It is not a contagious disease. It is not hereditary. Even when both parents are affected with Lupus their children are exempt from it.

Fig. 2.

Lupus exedens
before treatment.

Nevertheless so strong has been the impression of most writers on the subject, that so striking a disease must in some way be hereditary, that the question of its not being so has scarcely been entertained by them. The fact that it never is so in its own shape has not been allowed to interfere with this conviction. Accordingly it has by most writers been sought to refer Lupus to some other disease, the hereditary character of which is more decided. They have preferred to regard it as an exceptional form of some commoner disease which unquestionably descends from parent to child. Some have referred it to scrofula, some to syphilis, and others to tubercle.

Fig. 3.

Lupus exedens
after partial treatment by Multiple Linear Scarification.

By most it has been referred to scrofula. Some colour for this view is afforded by the facts that scrofulous individuals do not enjoy any special exemption from the visitations of Lupus; that in them Lupus is apt to assume a specially aggravated type; that the lymphatic glands of a region invaded by Lupus are some times affected in a manner analogous to scrofulous disease of these glands; that in some cases of Lupus there is even a general enlargement of the lymphatic glands and that Lupus is sometimes found associated with other scrofulous phenomena of a most unequivocal kind. These facts are indeed beyond question. To urge that scrofula is but rarely complicated by Lupus, would scarcely be an answer to the scrofula-theory, since it is based on the assumption that Lupus is scrofula under a rare phase. Much more to the point is it, to lay due stress on the facts: that in the majority of cases of Lupus the patient is perfectly sound and healthy in every respect, except for the local phenomena produced by Lupus: and that neither in himself nor in the other members of his family can any history of scrofula be established. As to the special ravages produced by Lupus when it occurs on scrofulous persons: it is to be remembered that the development in the substance of the skin (and adjacent mucous membranes) of the new-formation tissue

Fig. 4.

Lupus exedens
after complete treatment by M. L. Scarification.

peculiar to Lupus leads at length to local inflammation and ulceration even in persons whose general health is excellent. It is only to be expected that in scrofulous persons the inflammation thus aroused should evince the scrofulous type, should lead to scrofulous infiltration and chronic suppuration of the corresponding lymphatic glands and should modify somewhat not only the character of the ulceration of the Lupus-patches but also the appearance of the scars left by the Lupus-ulcers. It is easy to comprehend that the phenomena and consequences of inflammation, whether excited by Lupus or any other cause, are not the same in a scrofulous as in a healthy person.

Some authors have referred Lupus to syphilis. It has been assumed that Lupus is an evidence of inherited syphilis namely that it is always so. Others have maintained the view that Lupus is in some cases a syphilitic disease while in many cases it is not so. It has been held that in some instances it is impossible to distinguish Lupus from syphilis since some cases present an aspect which is neither solely that of Lupus nor solely that of syphilis but seems rather to be partly of the one kind and partly of the other. For my own part I have never seen a case which exhibited an appearance intermediate between that of Lupus and that of syphilis. Lupus it is true has a superficial resemblance to some phases of syphilis, but the numerous characteristic differences that exist between these two diseases suffice in every case to distinguish clearly the one disease from the other. To confound Lupus either in part or absolutely with either inherited or acquired syphilis is to evince an imperfect acquaintance with the characteristics of these two most distinct diseases. The term "syphilitic Lupus" is therefore inapplicable to any known condition and should be discarded.

Other observers have referred Lupus to tubercle and have regarded Lupus as a localized tuberculosis restricted to the skin and adjacent mucous membrane. The origin of this belief was the discovery of the giant-cell in tubercle. For a time the giant-cell was believed to be peculiar to tubercle. When therefore it was subsequently found that in Lupus-tissue also the giant-cell was of constant occurrence the identity of the two diseases was considered as placed beyond question. But inasmuch as giant-cells are now known to be met with also in the marrow of growing bone, in granulation-tissue, in syphilitic gummata, and in sarcomata: it is clear that the presence of these cells in Lupus has not the significance which was formerly imputed to it. Several observers however have sought nevertheless to demonstrate that the *tubercle-bacillus* (which is found in the cells of tubercle, especially the giant-cells of tubercle, and which is now believed to be the essential characteristic of tubercle,) is to be found also in Lupus. Some have found the tubercle-bacillus constantly present in Lupus, but other investigators of considerable repute have, after examination of numerous cases of Lupus, failed to find the bacillus in even a single instance. Leloir[1] has attempted to produce tuberculosis artificially by inoculation of Lupus-tissue, and although in many instances he failed yet in others he succeeded in producing a generalized tuberculosis in which the tubercles contained bacilli. Whatever may be the correct interpretation of these observations it is at the least very difficult to comprehend how Lupus, if it be identical with tubercle, should fail, so constantly as it unquestionably does fail, to produce general tuberculosis in individuals who have been for long affected with Lupus. On the other hand the family history of persons affected with Lupus and, what is more, the clinical characteristics of the disease itself are altogether opposed to the theory of any near relationship existing between it and pulmonary consumption.

Lupus is a well-defined disease the cause of which is at the present time unknown. It occurs with uniform regularity in a certain definite percentage of the individuals of each generation but its choice of the individuals whom it affects seems, for all that is as yet known, a matter of the merest caprice. It affects the same percentage of the rich as of the poor. It is not more common in one country of Europe than in another. No influence of any known kind: whether peculiarity of constitution, occupation, mode of life, diet or hygienic surroundings: seems capable of influencing the rigid impartiality which governs its selection of individuals.

On an average two cases of Lupus present themselves amongst a hundred cases of skin-disease.

Diagnosis.—The disease which is the most liable to be confounded with Lupus is the syphilitic eruption known as the tubercular syphilide: an eruption which is especially prone to attack the face. Any of the several varieties of the tubercular syphilide may be mistaken for Lupus; namely the clustered non-ulcerating variety, the scattered non-ulcerating variety, the perforating ulcerating variety and the serpiginous ulcerating variety. As regards either of the non-ulcerating varieties: the greater firmness of their tubercules, the deep pigmentation of the affected skin which they leave behind them, the depressed flat abruptly limited cicatrices which they produce, the much less tardy course which they follow and the coincidence usually of other symptoms of constitutional syphilis will suffice to distinguish them from Lupus. As regards either of the ulcerating varieties: the unbroken perpendicular walls of their ulcers, as if cut out with a punch, their smooth grey lardaceous floor, their comparatively hard edges, their less tedious evolution and involution and the flat sunken sharply-defined scars which they leave behind them, which scars while recent are deeply pigmented, such characters are amply sufficient to diagnose them from the ulcers of Lupus.

The perforating rodent ulcer, an ulcer which is apt to affect preferentially the face, more particularly one of the alæ of the nose, may, in its earlier stages, be readily distinguished from ulcerating Lupus by its peculiar margin. The skin which immediately surrounds the depressed scab-covered ulcer forms a raised narrow ring which is whiter than the surrounding skin and is of cartilaginous hardness to the touch. In its later stages the great depth to which the ulcer penetrates, destroying every tissue, even bone in its progress, and the character of the surface of the ulcer, which presents a smooth glazed appearance, and is of a pale dull-yellow colour, will, in conjunction with the peculiar margin of the ulcer, suffice to identify it.

Fig. 5.

Hebra's puncturing Lancet (full size).

The serpiginous rodent ulcer may be distinguished by the character of its margin and by the character of its floor, which are the same as in the perforating rodent ulcer.

Although both kinds of rodent ulcer are, like Lupus, wont to persist indefinitely if unchecked; nevertheless rodent ulcer, whether of the one kind or the other, makes its first appearance always at a much later age than Lupus, namely at the earliest in middle life or more commonly in old age. Moreover rodent ulcer affects usually only one side of the face whereas Lupus in most instances affects both sides of the face.

From Impetigo larvalis, a scab-covered eruption which often occurs on the faces of children, Lupus may be easily differentiated. Impetigo progresses far more rapidly than Lupus. The scabs of Impetigo are of a lighter colour and a softer consistence, and are less firmly adherent to the skin beneath them. The surface of skin covered by the scabs is not an ulcer. The eruption is usually more extensive and less defined than in Lupus.

The disease known as bat's-wing-disease, an eruption which is described by most modern writers under the name of "Lupus erythematosus," can scarcely be mistaken for Lupus (vulgaris). Nor does any relationship exist between these two diseases such as their identity of name would seem to imply. On the contrary they are obviously distinct diseases the one from the other. I have consequently proposed[1] the Latin name vespertilio (*vespertilio*, a bat) as a more suitable designation for bat's-wing-disease and have suggested that the name Lupus should be restricted to Lupus properly so called. The qualification 'vulgaris' is thus rendered unnecessary as applied to Lupus.

The histology of Lupus has been investigated by Wedl,[2] Auspitz,[3] Virchow,[4] Kaposi,[5] Essig,[6] Friedländer,[7] Colomiatti,[8] Lang,[9] Neumann,[10] and many others.

In the earlier stages of the disease a vertical section of skin affected

[1] Comptes rendus des séances et mémoires lus à la société de biologie, Paris, 1882–83.

[1] On 'Lupus erythematosus' or *Vespertilio*, London, 1887.
[2] Grundzüge der pathologischen Histologie, Vienna, 1854.
[3] Ueber die Zellen-Infiltrationen der Lederhaut bei Lupus, Medizinische Jahrbücher, II. Band, Vienna, 1864.
[4] Die krankhaften Geschwülste, II. Band, Berlin, 1864–65.
[5] Ueber die papillären Neubildungen der Haut, Archiv für Dermatologie und Syphilis III. Heft, Prague, 1869.
[6] Pathologisch-histologische Untersuchungen über Lupus, Archiv der Heilkunde, Leipzig, 1874.
[7] Untersuchungen über Lupus, Virchow's Archiv, LX. Band, Berlin, 1874.
[8] Sulla natura e struttura del Lupo volgare, Turin, 1875.
[9] Zur Histologie des Lupus, Vierteljahresschrift für Dermatologie und Syphilis I. Heft, Vienna, 1875.
[10] Lehrbuch der Hautkrankheiten, Vienna, 1880.

with Lupus exhibits, under the microscope, a number of sharply-defined, rounded yellowish nest-like masses of varying size (*lupus-nests*). These are sprinkled at various depths of the corium, and are not visible either in the papillary layer or in the epidermis.

Each of these 'lupus-nests' is composed of an agglomeration of very small rounded cells, each containing a highly refractive nucleus (*lupus-cells*). This agglomeration of cells is permeated by a network of coarse and fine fibres which network contains large blood vessels. The cohesion of these lupus-cells with this network is not very firm, since in preparing a 'section' these cells sometimes fall out leaving the network behind, or the whole lupus-nest may fall out leaving a round hole in the 'section.' The composition of the lupus-nest corresponds very closely to that of granulation-tissue.

The young lupus-nest is an extremely moist highly vascular and actively proliferating tissue. Nevertheless in this the early stage of Lupus, the lupus-nest may undergo involution. When this happens the bloodvessels of its network disappear, and its cells become swollen and opaque and cake together in friable granular masses, and '*giant-cells*' make their appearance. These latter are large irregularly-shaped multinucleated masses of protoplasm. After undergoing these changes, the lupus-nest, as to the greater part of it, becomes finally absorbed; but in part it undergoes organization into young connective tissue.

But, while some of the lupus-nests are disappearing in the manner above described, the disease itself is undergoing evolution: namely by the increase in size of the remaining lupus-nests and by the formation of numerous new lupus-nests. This extension of the disease takes place chiefly along the sides of the bloodvessels of the corium and papillary layer; so that at length the whole depth of the skin, from its surface down to the fat-lobules, is sprinkled with lupus-nests, some of which coalesce with one another.

At this stage of the disease a considerable transformation takes place. The connective tissue of the skin undergoes inflammatory infiltration. The lupus-nests lose their sharpness of outline, and finally disappear in the midst of a *diffuse infiltration* of the whole of the skin (and of the rete mucosum also) with lupus-cells. When this has happened, the delimitation between the papillæ and the rete becomes effaced, the cells of the rete undergo inflammatory changes and subsequent degeneration, the rete often becomes disintegrated and detached, and so the infiltrated cutis becomes exposed. Coincidently the lining epithelial cells of the cutaneous glands (sweat-glands, sebaceous glands and hair-follicles) similarly undergo degeneration. The hairs fall out owing to degeneration of their papillæ. The sebaceous glands undergo considerable alteration in structure, their ducts become obliterated and shrivelled to cicatricial threads, the glands themselves acquire a spherical shape and exhibit on section an onion-like arrangement of their epithelium (*Milium*).

The diffuse-infiltration-stage of Lupus does not however always lead to disintegration and detachment of the rete. In some instances a result the very opposite of this is arrived at. The cells of the rete undergo active proliferation. The rete grows down into the corium in the form of club-shaped processes which anastomose with one another and which meet also similar epithelial processes projected from the lining cells of the cutaneous glands. So that the corium becomes permeated in all directions with an epithelial network. This constitutes a condition highly favourable to the development of epithelial cancer as a complication of Lupus.

The methods of treating Lupus are of two kinds general and local. As to general or 'constitutional' remedies, none are as yet known which are capable of influencing the course of Lupus itself. Nevertheless, when Lupus occurs in a scrofulous individual, it is highly expedient to combat the complications of Lupus which in such case are occasioned by the scrofulous condition of the patient: for example, by the internal administration of cod-liver-oil, of iodide of potassium, or of iron, and by the hygienic conditions which are of known avail as against scrofula.

The local methods of treating Lupus may be divided into three classes. Those which aim at effecting premature involution of the disease, by expediting the process of fatty degeneration of the Lupus-cells and hastening the absorption of the débris. Those which aim at inducing premature involution in a different manner, namely by favouring the organization of the Lupus-cells into healthy fibrous tissue, and so avoiding in a great measure the loss of substance involved by the action of the class above described. Lastly those which aim at the removal of the disease *en masse*.

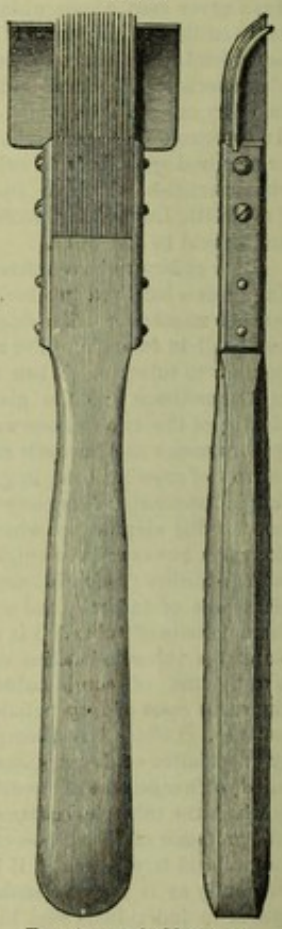
The remedies that come under the first of the three above-named headings are: Ointment of the Red Iodide of Mercury (gr. 10 to 1 oz.), Ointment of Iodide of Sulphur (gr. 60 to 1 oz.), the Glycerole of Iodine (gr. 240 to 1 oz.), the Liniment of Iodine (gr. 60 to 1 oz.), the various kinds of Tar, Soft Soap dissolved in half its weight of spirit, Ointment of Chrysophanic Acid (gr. 120 to 1 oz.):—all of these being strong rubifacients. To this list may be added various applications, all of which act mainly as macerators, that is to say, they macerate not only the epidermis, but also the Lupus-nodules themselves, and thus expedite their disintegration. Of this kind are various oils, such as Olive-oil, Almond-oil, Cod-liver-oil, Castor-oil; various simple ointments and cerates; various plasters, such as Soap-plaster, Mercurial plaster, plaster containing Salicylic Acid and Creosote as devised by Unna, India-rubber adhesive plaster as now imported from America and various other impermeable coverings.

The removal of the disease *en masse* may be undertaken by either of two means. The one is to cauterize, or in lieu of that to mince up, the diseased tissue which thereupon separates, after an interval, in the form of a slough. The other is to remove the disease by erasion with the 'sharp spoon,' or by excision. The caustics employed in the treatment of Lupus are: Carbolic Acid Solution (1 oz. dissolved in fl. 3j. of water), Nitrate of Silver either used solid in the form of a stick the point of which is bored into the soft Lupus-nodules, or used in solution (30 grs. dissolved in 1 fl. oz. of Rectified Spirit), Chromic Acid Solution (1 oz. dissolved in fl. 3v of water), Fuming Nitric Acid (Sp. gr. 1·420), Cosme's Paste (Arsenious Acid, 20 grs., Red Sulphide of Mercury, 60 grs., Benzoated Lard, 1 oz.), Canquoin's Paste (Chloride of Zinc and Oxide of Zinc equal parts in powder, with a few drops of water added), and Vienna Paste (Caustic Potash and Quick Lime equal parts in powder with a few drops of Rectified Spirit added). Each of these three 'pastes' requires to be handled with great caution. In addition to the chemically-acting caustics above named the 'actual cautery' (a small iron heated in a spirit flame), as well as its preferable substitutes Paquelin's cautery and the electric cautery are sometimes used in the treatment of Lupus.

Another method, allied to cauterization, is that of puncturation (Stichelung), devised by Volkmann and developed by Veiel, in which, by innumerable punctures executed with the point of a lancet, the diseased skin is minutely minced up even to mortification.

As to the removal of the diseased tissue by erasion: this procedure may be conjoined or not with superficial cauterization of the abraded portion of skin. When excision is practised it may be combined with a plastic operation.

Fig. 6.



The Author's Multiple Linear Scarifier (full size).

There remains to be mentioned a method of treatment which takes advantage of and favours the natural although feeble tendency of Lupus-cells to undergo organization into fibrous tissue. This tendency is, in the ordinary course of the disease, overwhelmed more or less completely by a preponderating proclivity to undergo granular degeneration: a proclivity to which the great majority of the Lupus-cells succumb.

In the method of treatment referred to, that of multiple linear scarification, the incisions are methodically separated by interspaces sufficiently broad to avoid the risk of mortification and each repetition of the scarification is delayed until (within a few days) the previous incisions have healed. By this method, which was devised by myself now many years since, I have often been enabled to recall, if I may so express myself, the nose in cases where that feature could not have been saved by any other method known to me. The accompanying series of three woodcuts represent a case which came under my care in 1875, which I treated by this means solely, and in which no relapse has as yet occurred. The scarification was effected by means of my multiple linear scarifier.

B. S.

24 *Weymouth Street, Portland Place*, 1888.