see in some of the pustular syphilides a certain very limited tendency to a location of the lesions on the arm, or what is more frequent, a tendency to aggravation on the arms of a pustular eruption elsewhere present in a milder degree. Thus an acneiform or impetiginous syphilide upon the face and the trunk may be accompanied with an ecthymatous, exulcerated syphilide of the arms. It is also to be regarded as somewhat characteristic of syphilis that an acneiform eruption should make its appearance upon the arms in portions so ill supplied with sebaceous glands and hair follicles as to be ordinarily exempt from the manifestations of acne vulgaris.

The occasional development on an arm or forearm of the later tubercular or gummatous syphilides can hardly be regarded as more than an accident to which any part of the skin of the body is liable in this protean disease, and withal the arms and forearms seem rather exempt than otherwise from any considerable frequency of accidents of the kind.

(*e*) *Traumatic Affections of the Skin.*—It should be borne in mind that the forearms and hands are the portion of the anatomy most accessible to those neurotic patients who, for purposes of exciting sympathy or from other morbid impulses, inflict on their own person various lesions, rarely severe, yet occasionally difficult of diagnosis. Such lesions are ordinarily such as would result from the application of irritant or vesicant drugs, or such lesions as would result from prolonged mechanical irritation with the finger tips, the nails, or some rough or sharp instrument.

In considering the traumatic affections of the cutaneous tissues of the arm and forearm, two forms of injury present themselves as of special frequency and importance, owing to the exposure of the upper extremity to all manner of vicissitudes incident to active life. These are extensive abrasions and extensive burns. The treatment of burns and abrasions of the upper extremity does not differ essentially from the treatment of similar conditions elsewhere, only on the forearm an extensive burn may do more damage than elsewhere on account of the subsequent contraction which may involve the subcutaneous tissues and compromise more or less seriously the independent action of the muscles which move the hands and fingers. On this account skin grafting according to the method of Thiersch is indicated for a burn on the forearm many times when a burn of like extent and equal depth, if situated elsewhere on the body, might be left to granulate with impunity.

As stated above, it has been my aim in considering the cutaneous diseases liable to affect the arm and forearm, to present such a picture of the lesion as would suffice for its identification. Further discussion of the pathology, etiology, and prognosis and treatment of the different diseases enumerated must be sought in other parts of this work, or in treatises more especially concerning themselves with dermatology.

II. Affections of the Fasciæ.

The affections to which the fasciæ and cellular tissue of the arm and forearm are liable are of three general types: erysipelatous, tuberculous, and syphilitic. To these we may add certain rare cases of contraction of the fascia antibrachialis, more or less analogous to Dupuytren's contraction of the palmar fascia, and of an equally uncertain pathology.

(*a*) *Streptococcic Invasion of the Fascia.*—Erysipelas is usually described as an affection of the integument, and the process is undoubtedly frequency confined to the skin, proceeding with its characteristic red blush to extend in the direction of the lymphatic current until the energy of the infecting streptococcic colonies is exhausted, and the disease subsides after a definite run of from six to fourteen days. This form of simple cutaneous erysipelas occurs with greatest frequency upon the face, but may make its appearance anywhere on the integument where streptococci may find an entrance, through an abrasion, perhaps extremely minute, or may have found lodgment in the glands or follicles of the unbroken skin.

Identical with cutaneous erysipelas in etiology, but differentiated from it in course and symptoms, is streptococcic invasion of the fascial and connective-tissue planes of the extremities and occasionally of the head and trunk. On account of the difficulty of access to the subcutaneous tissues through the unbroken skin, the history of fascial and cellular erysipelas will generally reveal a pre-existing, probably bad-behaving wound on the distal side of the focus of the phlegmonous process. The liability of the fingers and hands to traumatisms small and great, and the exposure of these parts to subsequent infection, explain the great frequency with which fascial phlegmons are met with on the arms and forearms, particularly of mechanics.

The differentiation between the several types of fascial infection is not in all cases easy from clinical symptoms alone, but the behavior of typical cases is sufficiently characteristic to permit a probable diagnosis, to which a bacteriological examination will in most cases add confirmation. Although mixed infections doubtless often occur, other, more strictly pyogenic, infections rarely confine themselves to definite anatomical layers as do infections by streptococci. The course of streptococcic invasion of the fascia and cellular tissue is acccompanied by an amount of fever in general commensurate with the extent to which the lymphatic channels are opened up for the absorption of the products of the germ life, rather than commensurate with the mere extent of territory involved. The temperature reaction in cases of infection of the fascial and cellular tissue of the forearm is rarely very great, it being rare to witness a temperature higher than 102° to 102.5° F. when the trouble is confined to the fascia and connective tissue of the arm. In marked contrast to this is the course of the streptococcic invasion of the pelvic tissues, where the abundant lymph channels allow the absorption of enormous quantities of toxins and even pus. A similar difference is seen in erysipelatous infection of the arm and forearm when along with the infection of the fascia and cellular connective tissue there is likewise an invasion of the skin itself, phlegmonous erysipelas, *stricto sensu*, where the general vascularity of the tissue allows a much more active inflammatory reaction to the microbial invasion. For this reason the temperature is a much less fallacious guide to the gravity of the condition in this than in many other surgical diseases. The onset of the disorder is usually marked with sensations of chilliness if not with positive rigors, and a general malaise, anorexia, and more or less gastric disturbances are pretty constant accompaniments of at least the early course of any extensive affection of the kind. The amount of pain is very variable, and is for the most part decidedly less than one would expect to meet in a staphylococcic invasion of equal extent. This difference is due largely to the different anatomical tissues for which the two kinds of germs seem to have an affinity. Staphylococci tend to form circumscribed colonies in the more vascular structures, often beneath tough and resistant connective-tissue planes, where the resultant pus or exudation gives rise to great and painful pressure upon the sensitive nerve fibres. Besides which it is very probable that the toxins produced by the staphylococci, particularly the staphylococcus aureus, are themselves peculiarly irritating to sensitive nerve tissue.

The streptococcus, on the other hand, has a predilection for the connective tissues and for the fascial membranes themselves, invading by preference their superficial surface; the resultant pus is not bound down beneath the tough and resistant membranes, and does not cause so much pain from pressure under confinement, and it is perhaps probable that the specific toxins of the streptococcus are somewhat less highly irritating to the sensitive nerves. The human system, furthermore, seems to combat the streptococcus by a more ready manufacture of antitoxin than it does in its efforts to overcome the staphylococcus, and thus to establish a temporary partial immunity to the attack of the streptococcus. This will account for the tendency that is sometimes manifested in streptococcic processes to linger on in a mitigated yet protracted manner, continuing to vegetate in the tissues in an obstinate yet less virulent form than at the outset of the attack. This is particularly prone to be the case in cases of extensive involvement of tissues of low vascularity. The vitality of the germs permits their continuous growth in tissues of feeble resisting-powers, while the system, through the accumulated stores of antitoxin, can so far neutralize the toxic products of the bacterial growth that the materials absorbed do not poison the body, as is shown by the diminished fever and the general subsidence of general constitutional symptoms, in spite of the lingering of the local process in the fascial layers. Thus arises a prolonged, quasi-chronic form of the trouble, which is particularly likely to supervene when the fascial planes of the extremities are invaded. The streptococcic invasion of the fascial planes of the arm and forearm is generally first along the deep fascia, with or without concomitant involvement of the superficial fascia and the skin. Only when the process has been for some time under way do the muscular septa become involved, and then a most formidable condition known as a deep dissecting phlegmon results.

The systemic effects have already been mentioned above. The local symptoms are characteristic in typical cases, and allow a ready diagnosis. At a point, it may be bordering on a wound, but more frequently at a greater or less distance to the proximal side of it, the skin will be seen to have a somewhat livid hue, and will appear somewhat œdematous; yet there will be lacking the dense infiltration of all the tissue layers which characterizes a general cellulitis depending upon infection with the staphylococcus. Then, too, the classical signs of inflammatory action will be less marked, unless the skin and superficial fascia are also involved—*i.e.*, there will be, as compared with the staphylococcic infection, less redness, less swelling, less heat, and less pain. The original wound may or may not appear to be involved in the infection, or if the wound is itself the seat of suppuration, the channel of communication between the original wound and the seat of the secondary suppurative process may be difficult to trace.

The limit of the involved area is very indistinct, as, owing to the want of vascularity of the affected tissues, there is no marked inflammatory induration acting as a wall of circumvallation about the focus of infection. To the examining finger, the sensation imparted on palpation is rather that of a layer of fluid separating the tissues, than that of a localized abscess with indurated borders and softening centre.

When the skin and superficial fascia are also involved, which is the exception rather than the rule, the implication of these more vascular structures in the morbid process will lend the appearance of a more acutely inflammatory type to the disease. The redness will be that of the angry blush of cutaneous erysipelas. The inflammatory exudation into the interstices of the skin will afford a more marked swelling, and a brawny feel to the tissues on palpation. The epidermis may be lifted in more or less extensive vesicles or blebs, whose original serous contents may become sanguinolent, and the delimitation of the focus of infection may be more distinct, the deep fascia being rarely involved in these cases much beyond the cutaneous blush.

The disease, if untreated or if refractory to treatment, though it tends to recovery through exhaustion of the virulence of the infecting germ, yet is likely to be extremely destructive to the tissues which it attacks; and if the accumulating pus is not freely evacuated, the process, although residing by preference in the layers of connective tissue first attacked, yet can easily transgress these limits and by the erosive and solvent action of the pus, or by the progressive outgrowth of the streptococci, involve contiguous structures to an extent that may be dangerous to life through secondary hemorrhage, due to erosion of an artery, or from pyæmia, due to septic thrombosis in the veins followed by "yellow softening" of the clot and embolism.

The prognosis, in the forms affecting the fascia alone, is good, if opportunity is given for a free hand in the surgical treatment of the case, and the patient has a certain strength of constitution behind him. In the form more strictly known as phlegmonous erysipelas—*i.e.*, the form complicated by the involvement of the skin and superficial fascia as well—the prognosis is grave if any considerable portion of the limb is involved. In that form of the disease in which the deeper connective-tissue planes are involved—*i.e.*, the intramuscular septa and the perimysium—while the prognosis as to life is fair, the prognosis as to restoration of the limb, or even as to life without sacrificing the limb, is uncertain.

The diagnosis of typical cases is not difficult, the non-involvement of the adjoining structures being more or less readily appreciable and characteristic. Erysipelatous infection of the fascia is to be differentiated from the general inflammatory œdema surrounding a focus of deep-seated suppuration, from malignant œdema, and from the tuberculous and syphilitic forms of connective-tissue disease. The points of differentiation from deep-seated and destructive abscess of staphylococcic origin have been described above. They are: non-involvement of the skin, or its involvement under a strictly erysipelatous type of inflammation with the characteristic blush; the formation of blebs and superficial infiltration and thickening of the skin itself, quite different from the brawniness accompanying the infiltration of the deeper layers, which is characteristic of a deep abscess. Furthermore, there is wanting in this form of inflammation the delimiting wall of inflammatory exudate which marks ordinary abscess formation, and no distinct line of demarcation separates the affected from the healthy tissue.

From malignant œdema an erysipelatous infection of the fascial planes is likewise to be differentiated by the less malignant and acute character of the disease: by the absence of the extreme fetor accompanying that lesion, and by its tendency to confine itself to one kind or to one layer of tissue. Malignant œdema is a rare disease in man, and, according to Park, is essentially a specific form of gangrene.

From the tuberculous form of the disease, the erysipelatous form is to be distinguished by its rather prompt following upon a wound on the distal side of the phlegmon (two to twelve days), by its rather rapid rise to an acme (four to six days), by distinct evidences of sepsis rather than cachexia, by the character of the evacuated discharge (more distinctly purulent and often containing more or less extensive sloughs), and by the pain and heat, which are much more distinct than in the cold abscess.

From syphilis of the fascia, an erysipelatous process can be distinguished by the absence of the gummatous infiltration, by the fever and pain, by the sudden onset often consecutive to a lesion on the distal side of the phlegmon, and by the absence of other manifestations of syphilis. It must, however, be borne in mind that a syphilitic subject may, quite as readily as any other, become the subject likewise of a non-syphilitic infection of the fascia.

The treatment of erysipelatous disease of the fascia consists in giving the freest possible vent to the pus, in vigorous local antisepsis, in stimulating and supporting the general system, and in some instances in the introduction into the circulation of a specific antitoxin.

As long as the disease is confined to the deep fascia, we may expect by free incision and by the local application of antiseptics to arrest the infectious process. Incisions to this end should be made subject to these rules: They should be parallel to the long axis of the limb; they should penetrate down to, but not beyond, the deep fascia; and they should be numerous enough and long enough to give easy access to all demonstrably affected tissue. With these rules in mind the surgeon should and may incise the tissues freely and extensively, and may do so without great danger either of provoking extensive hemorrhage or of exposing the patient to sloughing of

the skin, or to more extensive gangrene of the extremities, as the main blood-vessels run beneath the deep fascia, and the cutaneous branches are fully as likely to have been already obliterated by the septic process as they are to be divided by the knife. It is well to avoid the large superficial venous trunks of the forearm, and particular pains should be taken to avoid the median profunda vein at the angle of divergence of the median basilic and median cephalic veins, as this is the main communicating branch between the deep and superficial sets of blood-vessels, and by extension along this vein a thrombus might communicate the septic process to the deeper tissues.

After free incisions have been made, there comes up the question of whether or not it is best to use the curette. This is generally to be answered pretty decidedly in the negative. The introduction of the curette, even of the rinsing curette, into the crevices between the deep fascia and the skin, where the infectious process is mainly located, can hardly serve to dislodge septic material spread over a large area to any such degree of thoroughness as will compensate for the disadvantages attending the mechanical lifting of one anatomical layer off the other, for by means of this disturbance of the anatomical layers the infecting germs are given more ready access to still uninvaded regions. The case is quite different from that of a circumscribed abscess, where over a region of comparatively small area necrotic tissue needs to be removed to a considerable depth. In fascial erysipelas a large area is affected to only a moderate depth; and weighing the results of the unavoidable trauma on the one hand, inflicted by the instrument, with the proportionate gain in the removal of septic material on the other hand, the balance will in most cases be against the use of the curette in septic fascial disease.

Less damage is likely to ensue from the careful use of the probe in exploring the extent to which the purulent process may have undermined the skin; in fact, a careful exploration of this kind is indispensable to guide the surgeon in making his incisions. It is particularly necessary to make at least one incision at the proximal border of the suppurating area, so as to permit thorough flushing of the infected tract and to establish through-and-through drainage, and the upper limits of the suppuration can most conveniently be determined by the use of the probe.

When once the limits of the disease have been determined and the necessary incisions have been made, a thorough flushing of the diseased area with antiseptic solutions should follow. To this end considerable hydrostatic pressure should be employed, and every effort should be made to force the fluid injected at one incision to escape at another. If this does not readily follow on introducing the tip of the irrigating-tube at one orifice, it is quite in order to make a passage for the fluid by subcutaneous dissection if necessary, either by dividing the obstructing tissue bands with the knife, or by forcing the tip of the glass irrigating-tube under the skin until the flow is established from one incision to another. A solution of mercuric chloride, 1 to 1,000, is frequently used for this purpose, and should be passed through the wounds in large quantities. Stronger solutions of this same salt may be used; but if they are, a second flushing with plain water should follow on account of the poisonous qualities of the salt.

Aside from its value as an antiseptic, certain mechanical advantages attend the use of hydrogen peroxide in septic infection of the fascial planes—namely, the liberated gas lifts apart the layers of tissue and opens up the diseased territory to the further action of the antiseptic, yet lifts the superficial layer very gently and evenly without carrying septic material into uninvaded areas. Furthermore, the development of the oxygen gas can be felt through the integument, and the bubbling of the gas may be sufficiently appreciable to the touch of the surgeon to act as an indicator of the presence of suppurating tracts, perhaps unsuspected from investigation with the probe alone.

After free multiple incisions and thorough flushing, seton drains should be inserted, passing subcutaneously from one incision to another; this is a far more useful form of drainage than the mere packing of the wound with gauze. In fact, distention of the pockets is to be avoided on account of the undesirable tension on the margins of the affected area where the process is likely to extend. It is essential to the usefulness of the seton that the incision through which it enters and that through which it emerges should be sufficiently ample so that the lips of the wound shall not hug tightly the material of which the seton is composed, otherwise the object both of the seton and of the incision is nullified. The object of the seton is strictly that of a wick, and this function is much better fulfilled by a slender seton, easily movable to and fro in its bed, than by a large mass of material which chokes the orifices of entrance and of exit and distends the cavity which it meant to drain. The best material for a seton is sterilized absorbent lamp-wicking, or perhaps iodoform lamp-wicking. A good substitute for this is a ribbon of plain or iodoform gauze, from one-half to one and a half inches wide, folded once or twice on itself. Either the seton should be threaded through the eye of a seton probe, or through the eye of the probe should be threaded a ligature of heavy silk and this loop be used as the carrier for the bulkier seton.

After the incisions are made and the wound is flushed out, and the setons are drawn through, the question of dressings comes up.

Just here it is necessary to suggest caution in the indiscriminate application of wet dressings. The advantages in the use of wet dressings lie in the greater absorptive powers of the wet dressing by which the discharges are more readily withdrawn from the neighborhood of the wounds, and in the more efficient action of the antiseptics with which the dressings may be permeated.

The dangers from wet dressings, however, are also twofold. First, they provoke a certain amount of maceration of the skin, by which erysipelatous dermatitis, an ever-threatening complication, is invited. Secondly, the relaxation and softening of the tissues, which is advantageous in relieving the stasis in the capillaries where more vascular structures are involved, may prove equally effective in furthering the spread of the streptococci along the planes of soft and comparatively non-vascular tissue which are involved in fascial phlegmons, allowing the process to extend in tracts which might otherwise be less vulnerable to their attack.

In view of these two objections, I am convinced that wet dressings must be used with considerable caution in phlegmons whose principal seat is between the deep fascia and the skin, to avoid encouraging the extension rather than the arrest of the disease. The more free and complete the drainage, however, the less these objections hold, and where the incisions are ample and numerous, the obvious advantages of the wet dressings may more than counterbalance the objections to them, to which attention has been called by way of caution.

In any case the need of frequent renewal of the dressings is imperative. When it is impossible, through too great fatigue and pain to the patient, to redress the wound sufficiently often to make headway against the persistent suppuration, with the proviso that the incisions shall be sufficient in number and in extent, the constant drip or the constant bath may advantageously be substituted for the wet dressing. Inasmuch, however, as the disease we are now considering affects principally non-vascular tissues, the great benefits which follow this form of treatment when another class of tissues is involved, are not so conspicuous in cases of purely fascial disease. In cases complicated by cutaneous erysipelas, the constant bath, however, will be found of great value.

At subsequent dressings, after abundant provision has been made for the speedy discharge of pus, great advantage will be found in saturating the wicks which are drawn beneath the skin from incision to incision with Peruvian balsam, ichthyol, or some other tissue stimulant, and this

use of stimulant dressings within the wound cavities will be found useful as long as these remain open.

In the later stages of the disease when the active spread of the suppuration seems to have been arrested, much may be done to hasten the obliteration of the pockets beneath the skin and fascia by the skilful disposition of compresses so as to cause a mechanical closure of the portions of undermined tissue which are farthest removed from the track of the setons. Similarly when, in the process of healing, the undermined tissues have become once more agglutinated, with the exception of the tracks of the different setons, each seton track should be mechanically cut in half by the pressure of a compress, and be kept open only in that part which is near the incision. For this mechanical obliteration of parts of the undermined territory, tolerably firm bandaging of the limb is necessary.

The constitutional treatment of erysipelatous disease of the fascia is simply that of the sepsis which always accompanies it, and consists in pushing nutrition, and stimulating the circulation, and maintaining the activity of the emunctories.

A third method of attacking the disease, which in some grave cases it may be worth while to try, is the direct introduction into the system of the specific antitoxin derived from the action of streptococci on immunized animals (Marmorek's serum).

(*b*) *Tuberculosis of the Fascia.*—Primary tuberculosis of the fascia is a somewhat rare disease, and is prone to show itself, as do tuberculous joint lesions, much more frequently on the lower extremities than on the upper. Given, however, a tuberculous joint lesion in the upper extremity, secondary involvement of the fascia is probably as frequent at one seat as at the other. Fascial tuberculosis differentiates itself from fascial disease of other kinds by all the characteristic signs of tuberculosis. The onset of primary fascial tuberculosis is generally comparatively painless in the absence of secondary infections, and it is rarely possible to trace its direct connection with a coexistent wound, for the reason that the development of the tubercle germ is so slow that the wound of ingress may long have healed and have been forgotten before any tuberculous process manifests itself. On the other hand, secondary involvement of the fascia, where tuberculous joint trouble is present, is generally of easy demonstration.

Though streptococcic infection of the fascia may relapse into a chronic form, it does not begin insidiously as does a tuberculous process, and though in the latter stages of a tuberculous fascial phlegmon when secondary infection has occurred, so much of a distinctly pyogenic type may have been stamped upon the process as to render difficult a diagnosis from the signs present, yet an accurate history of chronic, almost latent disease, present for a considerable number of days or weeks before the onset of acute symptoms, is entirely inconsistent with what we know of the behavior of the streptococci, and is almost pathognomonic of tuberculous infection. In the absence of an ingrafted secondary infection, the febrile reaction to tuberculous disease of the fascia is slight, and when the local process is not extensive the general constitutional reaction may be almost *nil*. The tendency to involve adjoining structures is not marked, the skin proving resistant for a long period to perforation; on the other hand, the tendency to metastatic involvement at a distance is one of the most considerable perils attaching to the malady.

The slight tendency of primary fascial tuberculosis to involve adjacent structures may be due to the slow growth of the tubercle bacillus giving an opportunity to the surrounding tissues to fortify themselves by a defensive hyperæmia against the advance of the germ into more vascular, and consequently more resisting, fields. In this comparative vulnerability of the fascia, and comparative invulnerability of the surrounding tissues lie at once the safeguard and the danger of this form of tuberculosis. So long as skin, joints, and tendon sheaths are not involved, the subjective symptoms and the involvement of function are so inconsiderable that the process may remain unrecognized, and radical measures for its extirpation may be postponed until great destruction of tissue has taken place beneath the integument, or until with the final involvement of the skin in the tuberculous process a mixed infection has become imminent, or has actually taken place. On the other hand, when attacked at an early stage the restriction of the disease to one tissue favors greatly the chances of its complete eradication by appropriate measures.

The disease at first is confined to the surface of the fascia. There may be a small area affected, or it may be quite extensive. There is a layer of tuberculous granulation tissue which can be readily scraped off, leaving the protecting wall of inflammatory tissue which nature always throws round a tuberculous abscess. With the occurrence of secondary pyogenic infection, or with a primary seat in, or a later involvement of, the deeper intermuscular septa, the prognosis, which is otherwise pretty good, becomes very much more grave both as to restoration of the function in the limb and as to life itself.

This knowledge of the prospect ahead at once gives us the key to the proper treatment. The non-vascular nature of the tissue involved in fascial tuberculosis diminishes very greatly the chances of a spontaneous subsidence of the disease through the process of encapsulation and calcareous infiltration of the tubercles. Mechanical ablation of the affected tissue is the only hope of safety. Here, too, our knowledge of the natural history of the infecting agent will influence the technique of the operation. Whereas in cases of streptococcic invasion of the fascia it was advised to keep instruments out of the focus of infection, and to depend upon copious flushing with antiseptics and linear incisions with multiple drains, here the form of incision should be so varied as to allow the raising of large flaps whose under surface, as well as the beds upon which they rest, should be thoroughly scraped with the sharp spoon, or even shorn with the edge of the knife. Sinuses involving the skin should receive still more radical treatment; they should, if possible, be resected through their whole extent.

When secondary infection has not taken place, or does not seem to be virulent in character, drainage should be dispensed with as far as possible, as it is more than doubtful whether tubercle germs can be discharged from the system by mechanical drainage. If, on account of secondary pyogenic infection, it be considered necessary to make use of gauze drains, they should be few in number, should not be used to stuff the cavities, and above all should be peremptorily withdrawn at the earliest possible moment. The use of a moderately tight bandage by mechanically closing all "dead spaces" will in a large measure obviate the necessity for the use of drains, whose sole function it is to prevent the accumulation of wound secretions, but whose unfortunate attribute it is, in many cases, by the irritation they cause as foreign bodies, to excite secretion from the tissues with which they lie in contact. A condition which would seem to demand a longer continuance of the drain in reality indicates still more strongly a revision of the operation; indeed, in all cases of the kind, it is well for the surgeon to explain to the patient or to his friends, before undertaking operative measures, the possibility, or even probability, of further operation being required, and to get consent to necessary revisional operations at the beginning.

The free use of iodoform within the wound is strongly to be recommended in tuberculous processes, with proper caution to avoid its toxic effects. Powdered iodoform should be rubbed into the curetted surfaces with the fingers so as to distribute this pre-eminent tuberculocide into the pockets and crevices of the infected cavity. For situations where the turning up of flaps is not possible, iodoform emulsion may be injected with a syringe.

It may be well to point out that V-shaped flaps should be so cut as to have their apices away from the trunk in order to secure their sufficient blood supply and to avoid sloughing.

(*c*) *Syphilis of the Fascia.*—Syphilitic involvement of