sensitive nerves supplied to the skin. Thus, the innumerable termini of these nerves which are destroyed, and constantly exposed, become equally as innumerable centres of exquisite sensibility and pain. That constant tendency to contract in burned tissue, whether vascular or fibrous, produces unceasing pressure around these inflamed nervous termini, and causes incessant pain, until finally, by this compressing process, their organization is destroyed, as is indicated by the great want of sensibility in the cicatrix.

While it is true that the destruction of vascular and fibrous structures by the action of intense heat is a leading difficulty in the way of healing these wounds, that irritation constantly present caused by the myriads of inflamed and sensitive nervous branches is equally a cause of protracting their progress. Then, in the healing process of burns, *painfulness* and *contractility* are among the distinguishing features.

This is true even of the granulations which form the new tissue. They are firm, more cartilaginous, more sensitive and painful, and their structure more contractile than any other. Here again, may not this in part be due to those minute bulbs of the inflamed nervous branches keeping up an unceasing irritation?

This peculiar contractility of burned tissue not only tends to obliterate the nervous branches entering it by compression, but also tends to diminish the calibre of capillary vessels to such an extent as to comparatively unfit them as the carriers of blood-corpusles. Hence this newly formed cicatrical structure is reduced some what to the standard of cartilage and is no longer subject to those active vital operations of disintegration, waste, and renewal that other more vital tissues are. Therefore, whatever form they assume is permanent. In this manner the nervous supply is curtailed, causing a diminished sensibility and circulation in the cicatrix.

On the general treatment of burns.—In the treatment of simple primary shock, while all concede the necessity for anodynes, the free use of diffusible stimuli and the sulphate of quinine are of great importance. The process of nervous shock in these cases has some analogy to chill, as when reaction returns it is disposed to assume the form of fever. The quinine in such cases not only aids in restoring reaction, but it also moderates it, and prevents a high degree of febrile excitement.

In shock with cardiac thrombosis, opiates are dangerous. Quinine in large doses is too depressing, but in small quantities is useful. Ammonia in the form of the liquor, with iodide of potassium, and alcoholic stimulants, constitute the most important remedies. The following combination is a valuable one under these distressing circumstances:

℞ Liq. ammon. fort., f℥ ij;
Potas. iodid., ℥ iss;
Glycerinæ, f℥ i;
Elix. calisayæ, f℥ v.—M.

Of this a tablespoonful may be given every hour, diluted. The ammonia might also be used hypodermically with advantage.

Those cases of hectic fever arising during the progress of very extensive burns with copious suppuration, are best treated with a combination of tinct. of the chloride of iron, chlorate of potassium, and quinine. For instance, in a case of burn where the entire cutis from the toes to the hip was destroyed, the entire surface of the limb became a mass of suppurating granulations, the amount of pus excreted daily being enormous. Hectic fever with great exhaustion followed. This method of treatment was adopted, and in a month the hectic symptoms had disappeared, the suppuration subsided, and the extensive injury rapidly healed. In those cases of internal inflammation, suppuration, or ulceration arising from capillary embolism either with or without symptoms of pyæmia, those remedies are equally valuable, but they should be associated with antiseptics of a decided character; carbolic acid in the form of sulpho-carbolate of sodium is probably one of the best adapted of all this class for internal use. The external use of the acid owes its chief value to its antiseptic action over the system when absorbed. The question of sepsis in burns is a much more important one than is generally supposed. Why should it be otherwise? The large amount of tissue and blood injured, and often disorganized in these cases, affords an abundant source for the development of septic material, which, when absorbed into the general system, is the true cause of many of the local and general morbid phenomena heretofore attributed merely to sympathetic influences. Hence the infinite importance of both internal and external antiseptics, in all cases of serious burns. In many of those cases of sudden fatal termination from comparatively slight burns, blood-sepsis or septicæmia is the real cause of death. Therefore, in all serious cases of burns, the free use of antiseptics, both internally and externally, to meet this condition, becomes an important element of treatment. Typhoidism in the type of febrile reaction in burns as in wounds always indicates septicæmia.

Local treatment.—Of all local applications in the experience of the writer, iodoform, prepared with extract of conium, and spermaceti ointment, with a small portion of carbolic acid, appears to meet the several indications best.

This agent acts as a certain and most effective sedative on the painful and irritable exposed surface, and at the same time as an antiseptic. It reduces irritation, inflammation, and suppuration, when in excess, in a remarkable manner. It converts a most painful and irritable wound into one comparatively painless with promptness.

This remedy is also an excellent promotive of healthy action and of the healing process. I have experimented with iodoform ointment in these cases repeatedly, and always with the same pleasant result. The use of this preparation has another advantage; it renders the constant use of anodynes unnecessary. The following formula has been found the best: