about the same as before, but decidedly less severe. The spectroscope again showed methemoglobinemia.

The second case occurred in the practice of Dr. John Warren Achorn:

CASE 2.—The patient, a female, unmarried, dressmaker, complained of headache on the top of her head for which she had been taking six "Nervease" powders daily. She complained of loss of energy and nausea, though she had not vomited. She also said that the night before coming under observation she had taken the contents of one box or ten powders. The patient was livid with dark blue nails. The pulse was tense and hard. The blood contained methemoglobin. The red blood corpuscles amounted to 3,991,000, the whites to 9,855. Hemoglobin could not be estimated by the common color tests on account of the peculiar chocolate shade of the blood. A differential count of 200 leucocytes showed:

	Per cent.
Polymorphonuclear neutrophils	62.5
Small mononuclear basophiles	19.0
Large basophiles	15.0
Eosinophiles	3.5
Mast cells	0
Myelocytes	0

A very few granular red corpuscles were found.

The use of the powders was stopped and the patient rapidly regained her health.

As the symptoms of both these cases were plainly attributable to the "Nervease," our next efforts were directed to the determination of the character of the deleterious ingredients in the remedy. Samples from two boxes were analyzed, the first bought Jan. 14, 1905, the second Jan. 31, 1906. The powders weigh approximately 0.5 gram; the substance is pink in color with small glistening granules scattered through it, and has a pungent taste. It is but slightly soluble in water. This description applies only to the powders purchased in January, 1905; those bought in January, 1906, have camphor added, which is discernible not only by odor but by chemical tests. On heating with hydrochloric acid and the subsequent addition of phenol and hypochlorite of calcium, both samples gave a red color, which subsequently changed to blue on the addition of ammonia. This is a positive test for acetanilid. A powder of each was then extracted with water acidulated with hydrochloric acid, which separated it from the camphor in the second box, and the solution extracted with chloroform, which was then evaporated and the residue weighed. It was absolutely colorless and showed nothing but glistening crystals.

The average of two determinations of the acetanilid in this manner gave 0.281 gram, the difference between the samples purchased in 1905 and in 1906 being inconsiderable. As the dose is given as from 0.2 to 0.8 gram, with the maximum for twenty-four hours 1.3 grams, we can plainly see that the second patient, according to this, was taking 1.686 grams daily, and in one night had taken 2.81 grams of this substance. Yet in the circular accompanying the box we read: "Contains no opiate and is perfectly harmless." The camphor in the second sample was extracted from the residue from which the acetanilid had been removed with alcohol and found to amount to 0.075 gram. The ordinary dose of camphor is from 0.13 to 0.65 gram, with a maximum daily amount of 1.3 gram, so that the danger from camphor is not great.

The lesson is that drugs of this dangerous character should not be dispensed except on a physician's prescription, and their sale should be as strictly guarded as is that of strychnia or aconite. The use of a danger label would throw the responsibility of an overdose wholly on the patient. The German government limits the character of the ingredients which may enter a headache powder openly sold to the public to harmless substances, like

bicarbonate of soda and caffeine, and it seems that the time has arrived when this country should do likewise. The least that can be demanded of manufacturers of nostrums is that they state plainly on the label the ingredients of their preparation and the amount of each. Surely they should not be permitted to label "perfectly harmless" a box of powders containing a drug so powerful for harm as acetanilid.

A SIMPLIFICATION OF THE USUAL TECHNIC OF SKIN GRAFTING.*

JOHN EGERTON CANNADAY, M.D.

PAINT CREEK, W. VA.

In several forms of minor surgical work considerable satisfaction is obtainable even when comparatively careless methods are pursued. However, in the particular field of this subject a minutely planned and carefully carried out technic is essential to a successful issue.

The need for repairs to the epithelial covering may arise from the following causes: deep burns, lacerated wounds, the sloughing of flaps, gangrene from frost bite and other causes, varicose and other ulcers, the correction of deformities and the excision of malignant growths. Bared areas can only cover themselves by the reproduction of epithelium around the edges. After a varying length of time, dependent somewhat on the individual case, this border-line epithelium becomes apparently entirely exhausted and ceases to reproduce itself further. Then Nature must be assisted. Indeed, it is not usually best to wait until she has thrown up the sponge.

Unless the denuded area is quite large, it is usually most convenient to take the grafts from the individual needing them. Inasmuch as molecular life persists for some time after somatic death, one can often get about a hospital a suitable material from amputations and other operations. The skin and underlying tissue can be kept in warm normal saline solution for several hours until needed. The skin of the white when grafted on to the negro in time assumes the coloring of its host, and the reverse obtains when the skin of the black is transplanted to the white. Frogs, chickens and pigs have loaned their integument to man with very good grace. Once I grafted skin from a common water lizard on the foot of an Italian with a fair measure of success. The skin of the anterior portion of the arm or thigh is of suitable character for this work and from its location is very accessible. Especially when the defect to be covered is on a limb it is usually advantageous to take the grafts from a nearby location.

Among the many methods in vogue for securing a clean granulating site I have found the bi-daily wet dressing of gauze (wet with chloral hydrate, grs. ii to the ounce of water) kept covered with oiled silk to be satisfactory.

In my work I use the Thiersch graft. I have the part from which the shavings are to be taken carefully cleansed with liquid antiseptic soap, gauze pad, warm sterile water and alcohol. The granulations are irrigated with hot saline solution and the surface is freshened by a very gentle rubbing with an ordinary sterile nail brush. This freshens the granulations without destroying them. Some time since I abandoned the curette for this purpose. With it smooth and even freshening is an impossibility. It tears off the granulations *in toto* and leaves an irregular surface having an

* Read before the Kanawha Medical Society, Charleston, W. Va., Feb. 20, 1906.

insufficient vascular supply for the securing of certain takes. The freshening of the surface by gentle rubbing with a gauze pad, as suggested by Lauenstein, I have tried in several cases; where the granulations are comparatively tender this method is quite effective, but if the granulations are firm I always resort to the use of the nail brush. Hot saline solution and pressure quickly control the slight hemorrhage. A sharp aseptic metal-handled razor should be used. The skin of the part from which the grafts are to be taken is made tense by grasping with the hand. The grafts are sliced off by sawing movements of the razor. I try to have them half the thickness of the skin, half an inch wide and one and one-half inches long, that size being convenient to handle and satisfactory for most cases. As soon as a graft is severed it is turned over the end of the left index finger, skin side next to the finger, carried directly to the denuded site and pressed down on the surface with the finger, a small probe serves to smooth and straighten it out in the position in which it is desired to remain. This process is repeated until the bare area is covered. By the direct transference of the skin strips you will be able to cut them more nearly in proper size, shape and number and the proportion of takes will be larger. I have the surface from which the grafts are taken, dry and transfer them without the intervention of any saline or other solution, which, I believe, only serves the purpose of rendering a delicate piece of work more difficult.

I cover the grafted site with thin dental rubber dam, criss-crossed for drainage if the area is large. I place a small gauze pad over this, securely anchor it on all sides with narrow strips of zinc oxid adhesive plaster to prevent the displacement of the grafts and apply externally a cotton, gauze and bandage dressing. Frequently it will be well to apply a splint or to encase the part in plaster-of-Paris to secure immobilization. In case the grafted locality is on a limb I have it placed on a level with the rest of the body or slightly elevated. A slight degree of pressure will keep the grafts in contact with the part, prevent serum from collecting between the graft and the wound and prevent bleeding. Too much pressure will promptly kill the grafts.

At one time we were taught to keep our skin graft dressings wet with physiologic saline solution. Being valuable for some things, it was supposed to be useful for everything. I discontinued it as being exceedingly troublesome and totally devoid of value for this purpose and began using sterile vaselin and petrolatum as lubricants to prevent the dressings from becoming adherent. Later I adopted the plain dry dressing previously described and have used it for some time without having cause for regret. It possesses the advantages of simplicity and neatness. It lessens the trouble of after care. If the dressing should become adherent it can be easily loosened by soaking it in warm water and removed without disturbing the new epithelium. Ordinarily I leave the first dressing on for a week, and after that the wound often requires but little care. Pus infection in these cases is almost fatal to success and must be guarded against.

I have practiced my method in twenty-three cases without a single complete failure. I have used it principally in the repair of defects caused by burns and lacerated wounds.

In conclusion, I desire to emphasize the advantages of the direct transference of grafts; the substitution of the nail brush for the curette, and the superiority of the dry dressing moored in place by adhesive strips.

THE RATIONAL TREATMENT OF URETHRITIS.*

NOAH E. ARONSTAM, M.D.

Professor of Dermatology in the Michigan College of Medicine and
Surgery.
DETROIT.

The rational treatment of this affection depends on the etiologic factors that are responsible for its causation. The non-specific forms demand an entirely different regimen than the specific variety. We must endeavor in all cases to eliminate the cause so far as possible. To dwell at length on the treatment of the various types of the malady under discussion would require more time and space than has been allotted to me. Suffice to state, however, that urethritis dependent on certain dyscrasias and diatheses must receive their adequate consideration before we can expect favorable results. To treat any given case of urethritis merely with a hand injection and the internal exhibition of some nondescript "urinary antiseptic," without having recourse to physical, urinary and microscopic examination, if necessary, is just as absurd as to treat the symptoms of a febrile disorder, without taking cognizance of the specific elements which may have precipitated the fever.

Of greater interest to the physician, however, is the treatment of the *gonococcic type* of the disease. Concerning the so-called "aborative plan" the author has nothing good to say. It is an inappropriate procedure and should be condemned by every scientific physician. To destroy the gonococci would necessitate the use of powerful germicidal agents, which undoubtedly injure the intact urethral mucosa and hence are conducive not only to increased suffering, but also to appreciable solutions of continuity therein, damage the canal permanently and eventuate in stricture formation. Its irrationality is apparent at a glance and need not be dilated on. The conservative school of the profession advocates the "expectant plan" of treatment, contending that a gonococcic urethritis is a self-limited affection, uninfluenced by interference of any kind. This is a very reprehensible conception of the real pathology of the malady, is far from scientific and may at times lead to unfavorable sequelae and not infrequently prolong the duration of the disease indefinitely. This plan is of doubtful propriety and deserves to be ignored as an irrational mode of treatment. Not less reprehensible and still more ridiculous are the remedies in vogue at present, obsolete and obscure methods that have come down to us as a heritage of barbarism or witchcraft from the latter part of the medieval past. I can not refrain from disparaging their employment and shall prove the inefficiency of their highly vaulted therapeutic activity. Their name is legion and to enumerate them all would require a special chapter to be written in the histories of medicine now extant. Prominently among them figure the "alkaline diuretics." The theory is pretty much prevalent, that alkalies, when ingested are absorbed into the circulation and neutralize the normal urine by rendering it alkaline, thus alleviating pain and ardor urinæ, two harrassing symptoms of the acute stage of this disease, simultaneously acting as mild urinary antiseptics. This theory contains much that is futile. When alkalies are absorbed, their identity is completely destroyed as far as the acid radicle is concerned; they are ultimately converted into normal chlorids or salines and not carbon-

* Read before the Wayne County (Mich.) Medical Society, Feb. 26, 1906.