Wounds not healing by first intention invite infection, which leads to suppuration and phlebitis. The occurrence of ischio-rectal cellulitis and abscess is a complication that entails discomfort incomparably greater than any disease for which a minor operation is required. Healing by first intention should always be encouraged if possible, by the free use of catgut sutures, and the period of convalescence be thereby materially lessened.

The technic of minor operations on the anal rectum, and the strict application of the principles of antiseptics will contribute incalculably toward success, and remove that fear extant among the laity that operative measures are fatal, or are not conducive to permanent cure.

DISCUSSION.

DR. J. R. PENNINGTON, Chicago—While it is true that strictures, ulcerations, incontinence of feces, etc., occasionally follow rectal operations when done by the inexperienced operator, yet we rarely find these sequelæ when the operation has been performed by a skilled proctologist and efficient after-treatment administered. I believe that in many cases the final result depends as much on the after-treatment as the operation itself. After most of my rectal operations, especially those for hemorrhoids, I introduce into the rectum a rubber-covered rectal tampon. I find this a most valuable method, far superior to any gauze dressings. Its removal is painless and it leaves the wound in such a condition that the bowel movements are also painless, a point which seems to us of much importance.

DR. CHARLES MARTIN, Cleveland, Ohio—It seems to me that a more fitting title would be, "Bad Results of Bad Surgery and How to Avoid Them." There has been much mutilation practiced on the rectum. There are one or two points suggested in this paper on which I would like to make comments. There has been during the past few years practiced in this country an operation known as "the American operation," a most un-American procedure—for it is American to permit the greatest individual liberty and privilege and to encourage the accumulation of possession and the retention of those things which we have. I sent, into the central western states three years ago, 7000 circulars, to the profession, inquiring as to the results of the mis-called "American operation," and I have many letters reporting over six hundred cases of most disastrous results from that operation, results worse than the conditions which it was designed the operation should relieve. There is another point referred to in Dr. Beach's paper, having particular reference to the mechanism of the sphincter ani and of the transversus perinei—he refers to the difficulty of getting coaptation of the anterior quadrants of the sphincter when the ends are divided in surgery or torn by accidental means. These sphincter-ends may be sutured and made secure provided an additional operation is performed on the transversus perinei muscles and on the coccyx, which will take all the tension off the sphincter and give it time to unite. If an incision is made through each transversus perinei muscle, and if the tip of the coccyx—last bone—is divided from its fellows, all the muscular structures about the anus are set adrift and almost immediate union of the sphincter follows.

USE OF ACETANILID IN VARIOUS COMBINATIONS AS A SUBSTITUTE FOR MANY PROPRIETARY DRUGS AND MIXTURES.

BY LOUIS FAUGERES BISHOP, A.M., M.D.
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Those of us who are confused by the claims of the ever-appearing antipyretic analgesics should consider one method by which we can obtain definite knowledge of this special class of drugs. It is better to know one drug well than many partly. For a long time I have not prescribed any new drugs of this class, but have substituted acetanilid in such a combination as seemed desirable for the case. In doing this I have also returned somewhat to the custom of prescribing liquid medicines. Acetanilid is not soluble, but it is readily suspended in

syrupe mixtures so that one can write for acetanilid combined with ammonia in any of its forms—salicylic acid, nux vomica, digitalis, codein, creosote, bromid of potash, or indeed almost any drug, and obtain a prescription that can be much more readily adapted to the case than is possible where any of the ready-made combinations are used that are sold under so many registered names to such enormous profit to the alleged proprietors of the same. The fact should be known to the profession that the foundation of most of these drugs is practically acetanilid, and any particular virtue that is claimed for them is obtained by the admixture of bicarbonate of soda, caffeine, carbonate of ammonia or some other such drug. Now these may or may not enter into chemical combination with the drug. The difference between a mixture and a loose chemical combination of organic products is often so slight that it is not worth considering. Practically in the body these drugs are broken into the acetanilid radicals and the other drugs, and for that reason it is much more professional and scientific to write for the mixture that we wish to use than to be the slaves to a secret medicine fad.

This is as much a pharmaceutical as a therapeutic problem. It is for pharmacy to decide the truth of the familiar claims of the owners of proprietary medicines, that they are in possession of some magic process of combination, or some method of purifying drugs unknown to the pharmacist in general that gives them the right to control and own particular remedies. It would seem that a man who had devoted himself to a profession, such as pharmacy, would be able to discriminate promptly between true and false claims of this kind. The *bête noir* of the proprietary medicine man is the substitution, by the pharmacist, of an equivalent combination for his elaborately advertised and prettily named remedy. Nor in the long run is it judicious for physicians to countenance this habit. However, it is within the legitimate province of the physician to substitute just as much as he pleases in prescribing, and the number of mixtures written for under specific names will be in inverse proportion to his knowledge of their constitution and composition.

There is another great class of remedies that is particularly abused, namely, the preparations of iron. In time the greed of the manufacturer often transfers his remedy from the domain of professional use to that of a nostrum, chiefly employed by the public. It is hard to see how the respect of the profession can be maintained by the forms of advertising that have already been put into use. Perhaps the most generally useful combination of acetanilid when used as an analgesic is the migraine tablet. This is equivalent to at least several of the most widely used secret mixtures that are sold under a specific name. It consists of two grains of acetanilid and one-half grain, each, of caffeine citrate and monobromate of camphor. The caffeine neutralizes much of the depressing effect of the acetanilid and monobromate of camphor acts favorably on the nervous system. These tablets are convenient for office use and for the pocket case as a general and efficient analgesic. Another useful combination that can be prescribed in capsules is acetanilid and quinin. A grain of acetanilid will neutralize the disagreeable effect of four or five grains of quinin. As a general tonic, when a patient is very uncomfortable from a cold, 1 grain of acetanilid with 2 grains of quinin three times a day, makes a good adjuvant to other treatment. In rheumatic conditions and those in which there is a suspicion of

*Presented to the Section on Materia Medica, Pharmacy and Therapeutics, at the Fiftieth Annual Meeting of the American Medical Association, held at Columbus, Ohio, June 6-9, 1899.

intestinal fermentation, acetanilid and salol can be prescribed in capsules. For the disagreeable disturbances of circulation and neuroses of the menopause, a useful prescription is a mixture that will give 2 grains of acetanilid, 15 grains of bromid of potash to 1 dram of simple elixir. The acetanilid does not dissolve, but is well suspended in the viscid vehicle.

Indeed, a small amount of acetanilid can form an ingredient of any one of a large number of familiar prescriptions, supplying a valuable anodyne and antiphlogistic remedy. For instance, a useful cough mixture can be composed of acetanilid, aromatic spirits of ammonia and syrup of tolu. It combines well with bromid as a hypnotic, and may be prescribed in powdered form to be mixed with water. It is a useful addition to various mixtures for acute indigestion, helping distinctly in the relief of pain; for instance, in these very severe cases of flatulence, causing tremendous distress after meals, relief is obtained by a teaspoonful of the following tincture.

Acetanilid	3ii
Tinct. nux vom.....	3ii
Tinct. capsicum.....	3ss
Tinct. gentian. comp.....	3iv

M.

As a substitute for iodoform and a host of other antiseptic dusting powders acetanilid has been found to be very efficacious. It has the endorsement of successful surgeons, and there seems no reason to doubt that acetanilid in powdered form, or mixed with equal parts of boric acid, can easily replace the long list of antiseptic powders used in surgical disorders. There is a danger of toxic absorption, but this is true of all the others, and it is more likely to be understood, recognized and guarded against if one substance is habitually used than if the surgeon is constantly changing from one antiseptic to another.

In making this study of the practical therapeutics of acetanilid, it is not my desire to in any way antagonize those who deal in these preparations corresponding to these various prescriptions. My plea is rather for a better knowledge of these compounds so that the physician, if he does not wish to write his prescription, may use them intelligently. It is for the chemists to tell us what proportion of the new substances that are brought out represent important discoveries in pharmacy, and what proportions are mixtures, or such slight chemical modifications of well-known substances that they serve more to introduce mystery and confusion into therapeutics than to advance knowledge.

What is needed by the profession to-day is a better knowledge of drugs that it is using. It would be well if the new pharmacopeia could be the work of a genius, eliminating the thousands of drugs that have fallen into disuse, and enumerating only those of practical importance, so that in the next generation physicians could concentrate their attention on fewer drugs, and acquire thorough knowledge of these. It is impossible to eliminate patented drugs from use, but there should be some authority which fearlessly would give a true and impartial opinion as to their construction and therapeutic value. One hardly realizes how much the profession really stands in fear of the influence of some of these drug companies. I remember that once, at a state society, I spoke in a disparaging way of the most widely advertised secret acetanilid mixture, and was approached after the meeting with the advice that it would be better not to antagonize a company that gave so much advertising to the medical press. I noticed that my remarks were eliminated from the report in the most

prominent medical journals. It should not be the duty of any individual to lay himself open to lawsuit and possible persecution in behalf of the medical profession in exposing the true value and construction of drugs. It would seem that the time had come when there should be some central body which could be entrusted as a court to give a verdict on the true composition and value of drugs. Some foreign countries have laws prohibiting the sale of secret preparations and making it a misdemeanor to sell drugs at a greater price than a reasonable profit.

There will be a stubborn fight on the part of the owners of certain secret remedies for their introduction into the pharmacopeia, and it is almost certain that they will not be admitted. While it must be acknowledged that some patented synthetics must be admitted, still care must be exercised that under the cover of these really new drugs a great many worthless ones are not also introduced.

PROGRESS IN SERUM THERAPY*.

BY GEO. W. COX, M.D.

CHICAGO.

The gradual unrolling of the scroll which displays the evolution of serum therapy brings into view one of the most pleasing pictures to be found in the gallery of medical art. It presents to us the image of a system whose present status was attained with a suddenness bordering on abruptness; and whose steady growth gives promise of eventually placing it in line with established sciences. My definition or conception of serum therapy must not be construed to limit the practice to the administration of antitoxins; but to embrace the treatment of disease with all such substances as are the natural outgrowth of applied bacteriology, which in turn is the result of the germ theory. Strictly and technically speaking some of these would necessarily be excluded from consideration under this head, because they are not serums, as that term is popularly understood and applied. However, the principle involved is essentially the same; and inasmuch as it would be impracticable to create a separate department for each substance, I hope the general term serum therapy may, for the present, at least, be accepted in such a broadened sense as to include medication by toxins, antitoxins, all blood-serums and vaccins; and let subdivisions of the subject be determined by future study and development.

An idea may be transformed into a theory instantly, and a theory into an art with moderate precipitation; but the conversion of an art into a science is a process of deliberate growth and can only be accomplished through the media of time, of skill, of patience and of labor.

Serum therapy is an art; and while its position as such is of recent date, it is descended from an idea so ancient that no man can reckon its birth or point its origin. Even the second degree of progression, the stage of theory, is so veiled in the gloom of antiquity that history fails to record the transition. The human race seems to be endowed with one principle which is common to all peoples in all ages, namely, the intuition to worship and to heal. Even among nations that are regarded by us as wholly uncivilized, where letters are unknown and environment the most crude, some sort of deity is recognized and some sort of "medicine man" is found; and concerning these two personalities, the spark of genius has, from age to age, occasionally flashed forth to break the blackness of the general gloom.

*Presented to the Section on Materia Medica, Pharmacy and Therapeutics, at the Fiftieth Annual Meeting of the American Medical Association, held at Columbus, Ohio, June 6-9, 1899.