The Treatment of Strictures of Large Calibre by Means of Kollmann Dilators.

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THE author points out that the passage of an ordinary bougie will often fail to show the presence of a commencing stricture, as the normal size of the meatus precludes the use of a bougie of sufficient size to detect this stricture.

It is very important, therefore, that every case of gonorrhœa which has shown signs of local infection of the lacunæ of Morgagni or of the glands of Littre, or which has been resistant to treatment, should be most carefully examined for the presence of incipient stricture before being sent away as cured. Routine urethoscopic inspection of all such cases shows that in a very definite percentage either there are still one or more patches of infected follicles, or that a section of the canal is the seat of a soft infiltration of the mucosa. The application of caustic or the diathermic point to the follicles will cure the first source of trouble, whilst the second can be removed by a gentle stretching of the infiltration with a Kollmann's dilator.

The extremely mild cases of gonorrhœa should always be viewed with suspicion. The very ease with which the disease yields to treatment and the lack of symptoms should cause one to be all the more careful before dismissing the patient as cured. The reason for this is that, whilst a large percentage of these cases are indeed trivial, and of no special importance, yet there are a certain number of them which offer a very stubborn resistance to complete recovery. All apparent symptoms and signs may disappear readily, and it is only by repeated microscopic examinations that the persistence of a minimal amount of trouble can be detected. Such cases are exceedingly liable to form the basis of a future stricture, and no such case should ever be dismissed from observation before thorough examination has been made to exclude small foci of infection or the genesis of a soft infiltration. If this is always done a large number of strictures will be discovered at their birth when they can be readily dealt with.

Routine Treatment of Stricture.—This consists of intermittent dilatations with the Kollmann's dilator at intervals of about 7 days. It is based on the theory of Mr. Canny Ryall, that, as every healthy urethra can be dilated to a 45 Charrière under a local anæsthetic, the cure of stricture consists in restoring the urethra to its original state of dilatability by means of systematic periodic stretchings. It is an obvious improvement on allowing the stenosis to remain at the calibre of the external meatus. No other treatment will give the same certainty of cure in such a large percentage of cases. If properly carried out it is practically painless and does not take the patient away from his employment, except for the actual time of treatment, which is usually required only once a week. The technique must be carried out exactly and requires some patience and application on the part of the surgeon to acquire the necessary degree of experience. There are, however, no insuperable difficulties which need deter any one from adopting this method.

It will have been discovered at a preliminary investigation whether the constriction will admit a close Kollmann's dilator (23 Charrière). If not, bougies must be used until the requisite calibre is reached. Practically all strictures are, in part at least, situated in the anterior urethra, so that dilatation is always commenced with the straight pattern dilator. It is bad technique to stretch any stricture with the curved instrument until the constriction in the anterior canal has been fully expanded because the curved dilator is a much more severe appliance and, unless the anterior urethra has been stretched fully to allow efficient drainage, the minute traumatism which are inseparable from any form of instrumentation

of the posterior urethra, may cause more or less severe attacks of catheter fever after each dilatation. By stretching the anterior urethra first the main portion of the stricture can be dealt with and the use of the curved instrument is restricted to a minimum. Occasionally a stricture is situated so far back that it cannot be reached with the straight instrument, which necessitates the use of the curved Kollmann from the commencement of treatment. Such cases are, however, relatively uncommon.

The actual stretching is carried out under efficient local anæsthesia, the dilator being opened step by step as the urethra gradually relaxes under the pressure of the dilating blades. This is continued until there is no further yielding after waiting a few moments following the previous advance. When this point is reached the appliance is carefully closed and removed.

This process, which lasts about a half to one hour, is repeated week by week, and it will be found that, if the technique is correct, there will be a steady weekly advance in the size to which the urethra can be dilated. When the limit of the instrument, 45 Charrière, is reached the case should not be regarded as cured but dilatations should be made to 45 on one, two, or more successive weekly occasions, until it is possible to reach the maximum expansion easily. At this stage it is also necessary to carry out one or more dilatations with the curved Kollmann's dilator to make certain that no part of the stricture has been left untreated.

The greatest care must be taken not to expand the appliance either too far or too fast, and an advance of one or two points over that reached on a previous occasion is all that is permitted.

The actual stretching should occupy about 20 minutes in a straightforward case, whilst in one of difficulty the dilatation should be spread over as much as 40 to 45 minutes. If pain occurs during treatment or there is severe bleeding when the instrument is removed from the urethra, it indicates a faulty technique, and greater vigilance must be exercised on future occasions both as to the rate of advance and as to the force needed to work the instrument. The more skilled an operator becomes the fewer will be his cases of bleeding; and the appearance of even a few drops of blood after a urethral dilatation should be regarded as a warning to go cautiously. The exact amount or the speed at which a case can be stretched at an individual sitting depends on the particular subject, and it is impossible to indicate more than the general lines upon which one should proceed in an ordinary case.

Reviews.

MEDICAL REPORT OF THE HAMILTON RICE SEVENTH EXPEDITION TO THE AMAZON IN CONJUNCTION WITH THE DEPARTMENT OF TROPICAL MEDICINE OF HARVARD UNIVERSITY, 1924-1925. (Contributions from the Harvard Institute for Tropical Biology and Medicine. No. IV. 1926.) Cambridge: Harvard University Press, 1926. Pp. xvi plus 313, with 70 illustrations and 16 figs.

THIS is a wonderful book. It is one to make the medical research worker's mouth water: whilst it will be of profound interest to protozoologists, entomologists, and parasitologists throughout the world. One has seen lately in the newspapers complaints that the great days of adventure and exploration are over, that there are no new worlds to conquer; this is emphatically not true of the sphere of tropical medicine; every tropical country presents its unsolved problems, whilst nowhere is there such a wealth of unexplored material as in tropical South America. The Congo, in comparison with the Amazon, is well mapped territory.

The staff of the expedition consisted of Dr. Richard P. Strong, whose name is so well known in the annals of research work in tropical medicine, Dr. George C. Shattuck, Dr. Joseph C. Bequaert and Dr. Ralph E. Wheeler. The expedition was both well founded and well found; its equipment included a river steamer, a steam launch, and a hydroplane. The route traversed was up the Amazon to the headquarters of the Branco and Orinoco rivers, lying chiefly through a large forest-covered plain constituting the greater portion of the most tropical parts of Brazil, and including the cities of Pará and Manaus, where many of the special investigation into diseases were carried out. "The climate," write the authors, "is characterised particularly by great heat and moisture and there are an extraordinarily large number of biting insects, some of which frequently transmit disease. The great humidity and continuous high temperature throughout the year render the climate especially debilitating and enervating to those who reside in it, and the population at different times in large areas of territory and particularly in some of the villages, has been almost exterminated by disease." And of the vast Amazon forest, they give a most forceful and graphic description; "the virgin forest of the Amazon offers little hospitality to the traveller, and it has perhaps been appropriately named by Alberto Rangel the *inferno verde*, where one soon dies of hunger, and during the dry season suffers from thirst, when almost all the streams which traverse it are reduced to some few puddles of stagnant or brackish water. It is too thickly and too regularly grown to be grand or picturesque, and too silent to be cheerful. It breeds too much vermin to be agreeable, and produces at length upon the traveller vague sensations of sadness, oppression and uneasiness, which cause him to breathe a sigh of relief or to cry out with joy when chance conducts him to some *campinarana*, or small prairie, or when he reaches the sunny banks of a stream with billows tumbling among the rocks of its yet imperfectly excavated bed." Outside the towns the population is entirely primitive; disease of every type is absolutely rampant; and the medical and public health problems of Amazonia so vast that they almost defy definition. The prevailing diseases are malaria, tropical splenomegaly, chronic ulcerative processes of the skin, leprosy, and syphilis. Hookworm disease is also very common, and beriberi, dysentery, typhoid, and small-pox are not infrequently seen. Special studies were conducted with respect to the cause and nature of the chronic inflammatory and ulcerative processes of the skin—(indeed in this respect the volume includes one of the most important contributions to the study of tropical skin diseases ever published), to tropical splenomegaly, and to the biting insects which prevailed. Animals—and especially the wild mammals of the dense forests—were examined for parasitic infections, and especially with a view to their possibly constituting reservoirs of human infections; a very large collection of local insects was made; and a very large amount of pathological material for study was obtained. In brief, the expedition has made an outstanding contribution to the furtherance of the study of tropical diseases in their every aspect.

After an introductory chapter dealing with the constitution of the expedition and its aims, comes a graphic chapter on the conditions in the Amazon forest, illustrated by magnificent photographs taken from the hydroplane. The vast vistas of partially submerged forest convey a vivid impression of the terrible characters of the country traversed, and of the difficulties in the way of opening it up to civilisation.

Chapter 3 deals with the spirochaetal infections encountered. Syphilis is very prevalent; the population of Manaus is estimated at about 50,000, yet no less than 24,661 patients with venereal diseases presented themselves for treatment during two years at the hospitals in the locality. Yaws is much less prevalent and yellow fever has been practically stamped out or has died out from natural causes. Weil's disease is of occasional occurrence; relapsing fever is very rare indeed; a few cases of rat-bite fever have been reported, whilst recently

Michelsoni (1925) has described a new spirochaetal infection due to *Spirochaeta riverensis*, associated with symptoms of chronic meningitis, tinnitus and cardiac palpitation; the Wassermann reaction is usually positive, but salvarsan does not affect the condition, which usually ends fatally in adults.

One of the finest sections of the report is chapter 4, which deals with chronic inflammatory and ulcerative processes of the skin. Ulcus tropicum was by far the commonest type of ulceration encountered. Vincent's spirochaete and the fusiform bacillus were identified in numerous cases. A detailed discussion is given of the possibility that the free-living spirochaetes of dirty water may become pathogenic to man by acquiring increased virulence, and that spirochaetes of the intestinal tract may also become pathogenic. (Everywhere throughout the whole volume full references are given to the work of other authors, and bibliographies added.) Unlike former workers, the authors were successful in transmitting infection with the virus of ulcus tropicum to experimental animals; typical sloughing phagedenic lesions were produced by subcutaneous inoculations in monkeys, and necrosis in the testis of a rabbit. The spirochaetes from stagnant water however failed to produce lesions when inoculated into animals. The authors conclude that Vincent's infection is probably never a primary one, but that it occurs on surfaces already traumatised or ulcerated from other infections. By way of treatment they found that salvarsan and arsphenamine, given both locally and by injections, were very satisfactory.

A new form of dermal granulomatous infection due to spirochaetes was discovered, in addition to Vincent's infection. The condition appears to affect especially the dorsum of the foot and ankle, and consists of papillomatous-like or condylomatous growths in which the individual protuberances are closely packed and form large confluent patches of granulomatous tissue, which later ulcerate and shew a tendency to heal by the production of scar tissue at the base of the lesions; thus the superficial appearance is not unlike that of an epithelioma. The papillomatous masses are often fissured, are tender and may give a boggy sensation on pressure. Film examinations shew enormous numbers of spirochaetes, but no fusiform bacilli. The spirochaete is morphologically entirely different from *S. pallida*, *S. pertenuis*, and *S. vincenti*; it measures some 14 μ to 30 μ in length, is longer and much thicker than the spirochaetes of syphilis and yaws, whilst the ends frequently give the appearance of a terminal deeply stained end or granule. Cultures were taken in which the spirochaetes survived for five days, but were then killed out by bacterial contamination. No local lesions could be produced in monkeys with the virus, but on injection into the testis of a rabbit an acute inflammatory area developed, in which a few coarse spirochaetes were found. A full histological description of this new form of dermal granulomatous spirochaetosis is given, and the authors propose the name *Spirochaeta noguchii* for the new spirochaete.

"Mossy foot" is a different condition from the above, the leg being affected with a pseudo-elephantiasis plus the ulcerated granulomatous "mossy" condition of the foot. A typical case which was examined shewed no microfilariae in the night blood; oval yeast-like parasites were encountered in films from the lesion but failed to grow in cultures. A full account of the histology of the condition is given with a coloured plate. The authors consider that typical "mossy foot" is probably of blastomycotic origin, but that probably *S. American* leishmaniasis and other conditions have been confused with it, and that the name covers a number of lesions due to various aetiological agencies.

Granuloma inguinale is another muco-cutaneous lesion not uncommon in Amazonia. There is much discussion as to the aetiological agent of this condition. Walker (1918) isolated the *Bacillus mucosus capsulatus* from the lesions; and Noguchi (1912) incriminated a spirochaete, *S. phagedenis*. The members of the expedition however were not able to isolate the former, or—

apparently—to find the latter. It seems much more likely that the intracellular yeast-like forms first described (in India) by Donovan (1905)—in this journal—may have some connection with the disease. Further and careful investigation of the subject is called for.

Dermal leishmaniasis is not common in Amazonia. A rather striking photograph of a papulo-pustular and extensive lesion due to leishmania is given. The question of the true diagnosis in cases of rhinopharyngitis mutilans is discussed; some of these cases may originate perhaps as leishmania infections, but essentially leishmania parasites do not tend to cause destruction of tissue; they tend to cause endothelial proliferation. Many if not most of such cases where the palate and nares are destroyed are due to secondary infections, such as leprosy and syphilis. A large number of dogs was examined at Manáos, but no leishmania infections encountered. Phlebotomi are very rare in Amazonia, a finding which would account for the rarity of leishmania infections.

Leprosy is not uncommon in Amazonia; by the end of 1923 there had been 460 cases registered at Manáos; this only includes cases in the city and its immediate vicinity, and it is probable that some 1,000 cases exist in the State of Amazonia. The disease is stated to be on the increase in the State, and undiagnosed cases were found in the wards of a general hospital at Manáos. A leper home for some 50 to 80 patients exists, but conditions are poor. The authors comment on the fact that, whilst marked improvement often occurs on using the ethyl esters of chaulmoogra and similar oils, yet this line of treatment cannot in any way be said to be a specific cure for leprosy. Intravenous injections of mercurochrome-220 have been followed by marked and rapid improvement, but reactions following injection are apt to be severe. Mercurophen and metaphen are on trial.

Malaria is the most prevalent and most serious disease of Amazonia. The climate is eminently suitable for severe endemic malaria, and Chagas (1921) has described local malaria of very severe type in Amazonia, associated with increasing oedema and with marked and progressive cardiac insufficiency. Twenty-eight per cent. of the mortality at Manáos is due to malaria. On the other hand the members of the expedition conclude that, although malaria is admittedly of severe type in Amazonia, it may be of just as severe a type in other places in the tropics. What is very common in Amazonia, however, is a type of splenomegaly, occurring especially in children and young adults, the true ætiology of which is very obscure. Towards the solution of this subject this very important and informative chapter is a notable contribution. The whole subject is discussed, together with the previous literature on it. The splenomegaly due to malaria, kala-azar, and undulant fever can usually be ascribed to the true ætiological agent with some degree of certainty. Tuberculous and syphilitic splenomegaly can usually be identified, if a sufficiently thorough examination of the patient be made and the appropriate tests applied. Banti's disease or splenic anaemia may present an obscure diagnosis at first, but the progress of the disease, with the onset of scanty urine loaded with urobilinogen, and of hepatic cirrhosis and ascites is characteristic, although the true ætiological agent is not known. Gaucher's disease presents but little in common with the other forms of splenic anaemia, and the familial history is characteristic. Egyptian splenomegaly is probably of bilharzial origin. Over and above these groups, however, there remains a residue of cases of "tropical splenomegaly;" and this matter the authors proceed to discuss. It is very common in Amazonia. It frequently starts in infants of three to four years of age, and in some districts more than half the children appear to be affected. The enlargement of the spleen is progressive and painless, and the spleen may in time almost come to fill the abdomen. Later, hepatic cirrhosis and ascites set in. The disease is characterised by irregular fever, and although there may be leucocytosis in the early stages of the disease,

later there is progressive leucopænia and progressive anaemia of chlorotic type.

Histologically, the spleen shews a hyperplasia of the lymphatic elements and a definite increase of its fibrous tissue. The Malpighian follicles are sometimes greatly reduced in number or their outlines are indefinite. The liver shews monolobular and polylobular cirrhosis. In the cases studied by the expedition spleen puncture was frequently resorted to. In some instances malarial parasites or pigment were found, but in many instances there was no evidence of malaria at all. Cultures of spleen juice on Noguchi's leptospira medium had negative results, and kala-azar can be excluded. The dubious parasite *Toxoplasma pyrogenes* described by Castellani from such cases is discussed. Also the question of cryptococcal infections.

The whole of the discussion on this matter in chapter 8 of the book will be of great interest to workers in the tropics. (There is no question as to the existence of these cases. It would appear as if the spleen may enlarge as the result of metabolic changes as well as from parasitic infections. The cases are such as almost defy all forms of treatment. The reviewer has at the present moment two such cases under treatment. In one, a child of six, a hæmolytic streptococcus was isolated from the stool, and the child is doing very well on an autogenous vaccine. In the second, a male adult, a hæmolytic streptococcus was also isolated from the stool, and at first the patient appeared to do well on an autogenous vaccine. Then he began to go downhill. Soamin injections improved his condition for a time, but were again followed by failure, and he is at present on "Hæmostyl." Repeated spleen punctures, thick blood films, all routine blood and serological tests have given negative results in both cases; there is no helminthic infection in either case on repeated examination of the stools. It would appear that some of these cases are due to invasion of the blood stream by a hæmolytic streptococcus from some focal lesion, others perhaps to metabolic disturbances. But the whole subject is of such importance that sound team-work is needed in its investigation. It is of interest to note that the condition in India, as far as one knows, is never seen in Europeans, whether adults or children.)

Chapter 9 deals with trypanosomiasis, and a most interesting account is given of the history of *mal de Caderas* in Amazonia. This disease is one of tremendous veterinary importance in Brazil. An account of its clinical features, methods of diagnosis, its possible transmission by tabanid flies, and of the capibara—a rodent somewhat resembling a pig—as a possible reservoir of the disease is given. A detailed account of Chagas' disease (S. American trypanosomiasis) is given, although the expedition did not encounter any case of this disease in the Amazon valley. The tatu—a species of armadillo—is under suspicion as a possible animal reservoir of the infection. The tatu, and also two species of *Triatoma* and two of *Rhodinus* are prevalent in the Amazon valley, but the human disease appears to be absent. A most interesting account is given of trypanosomiasis in the smaller ant-eater, *Tamandua tetradactyla*; the trypanosome appears to be identical with *Trypanosoma legeri*, described by Laveran and Mesnil (1912) from a different species of ant-eater, *Tamandua tridactyla*.

Chapter 10 deals with blastomycotic infections, with special reference to lymphangitis epizootica of horses, due to *Cryptococcus farciminosus*: a full account is given, and the question of *Cryptococcus* infections in man discussed. Chapter 10 deals with other parasitic infections in animals. Filariasis was encountered in the three-toed sloth, and also in the coati, *Nasua socialis*. In the latter animal there also occurred a new cestode, *Atriotenia parva*, a detailed account of which is given in chapter 12 by J. H. Sandground. The filarial infection in this animal appears to have been non-pathogenic, but the cestode infection had invaded the pancreas—a very rare finding in cestode infections, whilst intestinal bacteria had invaded the pancreas together with the mechanical migration of the worm and had caused a

fatal peritonitis. Several other parasitic infections of animals in Amazonia are described, with a series of very fine coloured and half-tone illustrations; thus a *Balantidium* infection was found in a cutiaya—an animal somewhat resembling a rabbit; and infection with linguatid worms in a *Callicebus* monkey. Hookworm infection was found by the authors to be very common in dogs and cats in Amazonia, as also in man. *A. canium* is present in almost 100 per cent. of the local dogs, and *A. braziliense* in some 74 per cent. Hookworm ova were found in the faeces of a urubu vulture, but no hookworm parasites in the intestinal tract of these birds. Hæmogregarine infections were very common in snakes in the district, and a discussion of the—supposed—hæmogregarines of man recorded in the literature is given. Herpetomonad parasites were also encountered in local *Euphorbia* plants, but human leishmaniasis is not common in the area.

An interesting account of pathological conditions produced by Arthropoda is given and will delight the heart of entomologists.

Stinging ants are very common but are chiefly found away from habitations; the symptoms are usually only localised, but urticaria and even fainting fits have been recorded as sequelæ. Simuliidæ constitute a perfect pest in the Amazon valley. In some sensitive skins actual vesiculation may follow the bite, in others urticarial wheals. Ciurea and Dinulescu (1924) have recorded swarms of these flies as having caused serious mortality among animals in Jugoslavia; in 1923 some 16,000 animals—horses, asses, oxen, buffaloes, sheep, goats and pigs—were officially stated to have been killed in the course of a few days with enormous suffering due to the extensive bites of *Simulium columbaccense*. The toxin of the fly appears to act principally upon the heart and on the central nervous system. *Simulium damnosum* is well known as a terrible pest in equatorial Africa. The lesions produced by the bite of tabanid flies vary in intensity; they are usually discrete and papular, and a good photograph of the condition due to multiple bites is given. If the bites occur about the ankles, there may be considerable local oedema. Trombididæ (mites) are very prevalent in the Amazon basin, but so far no association with any typhus-like disease in man has been traced. The "chigger flea," *Dermatophilus penetrans*, is also encountered in Amazonia, and tetanus has been reported to have followed on its burrowing into the skin. Scorpions are prevalent and the bite may be followed by severe symptoms.

Part II of the volume contains a full account, illustrated by photographs and sketches, by Dr. J. Bequert of the expedition, of the medical and economic entomology of the Amazon valley. Full lists are given of the Arachnoidea and Insecta encountered. Very special stress is laid on the importance of the Tabanidæ in producing diseases among the horses and animals of S. America. In Part III Dr. Shattuck gives a general account of observations on the Branco, the Uraricuera and the Parana rivers. The Indian tribes here appear to suffer less from contact with civilisation than do their compatriots further down the valley; the climate is colder, and the physique of several of the tribes very good.

We trust that we have attempted to give our readers a glimpse of the contents of this fascinating volume. It is a splendid contribution to tropical medicine, and worthy of the Harvard Institute and of the well known authors who contribute to it. The book is admirably published, and replete with coloured plates and half-tone illustrations. The photographs constitute a veritable picture gallery for a museum in tropical medicine. The appeal which this admirable and interesting book will make should be to a very wide circle of readers; it will appeal to the teacher of tropical medicine, to the laboratory and research worker, to the protozoologist, mycologist, and entomologist. It contains many contributions to veterinary medicine. Finally it is inspired on every page with the splendid spirit of adventure, investigation and research which to-day characterises the American (and British) Schools of Tropical Medicine.

The authors, the publishers, and Dr. and Mrs. Hamilton Rice who have done so much towards the scientific exploration of South America, are to be most warmly congratulated on its publication.

R. K.

ABDOMINAL OPERATIONS.—By Sir Berkeley Moynihan. Two volumes, totalling 1,217 pages, with 470 illustrations. Fourth edition, revised. Philadelphia & London: W. B. Saunders Company, Ltd., 1926. Price, 90s. net per set.

THIS book was first published in 1905 and reached its third edition by 1914. When it first appeared, its distinguished author was already famous for his work in the Leeds School and had published in conjunction with Mayo Robson two works on the surgery of the gall-bladder and the stomach which broke much ground which was then new. The first edition, as the author says in his preface to the present edition, won for itself and him many friendships. It did so because at a time when only a few of the more enterprising surgeons attempted such operations as cholecystectomy and gastrectomy, when opinions were much divided as to the value of these procedures and when the text books still gave rather vague advice which was very confusing for the young surgeon, this book shed a flood of light on ways which were dark. To the surgeon working in this country, who had not had the opportunity for some years of seeing operators at home and could only gather what was going on from papers in the journals, it was a priceless boon to have a book which gave a clear, well-illustrated account of how to do these upper abdomen operations, which then seemed so difficult. "Moynihan never muddles you," as a colleague of the reviewer remarked some twelve years ago in the course of a discussion about impacted gall-stones. That was the secret of its success, and as later editions appeared the popularity of the book never waned. It is twelve years since the last edition and the author is now the greatest authority in the world on the surgery of the upper abdomen. In the meantime surgical opinion has crystallised and all the world now does much the same operation for similar conditions, but a great deal of the credit for this stabilisation is due to Moynihan's work. With increasing experience he has perfected his technique in the minutest details and he gives us the benefit of this in the present edition. The chapter on surgical technique is new and deals with the author's technique in detail. "Was it not Michael Angelo who said that success depends upon detail but success is no detail?" "In respect of surgical work there may be some truth in Blake's assertion that all excellence is in minute particulars." These quotations indicate the keynote of the chapter and it will well repay study. Moynihan has always possessed a pleasing literary style and it shows to advantage in this book, nowhere better than in the preface, where in a few words he sketches the ideals of the surgeon and the supreme importance of technique:—"We speak, it may be with pride, of a mortality of only one per cent. But if you are the one in someone's hundred."

A book which has passed through so many editions hardly calls for any criticism of its subject-matter. It is at its best where the author gives us the benefit of his vast experience, as in discussing the causation of jejunal ulcer and failures after gastro-enterostomy, mostly due to selection of the wrong cases, incomplete operations which do not deal with the ulcer itself, or bad technique. So too with the complications of gastro-enterostomy, such as hæmorrhage and regurgitant vomiting, they were due to faults of technique and have receded into the background nowadays, so much so that after five pages of discussion of the causes of the latter condition, the author sums up the modern view in one paragraph and tells us that he has not seen it in his last few hundred cases, nor we think will it ever be seen by any operator who uses the Mayo no-loop method. The causation of jejunal and gastro-jejunal ulcer is still far from certain, the author's view that it is probably due to the persistence of those causes which