great; for instance, in August, between seven and ten o'clock, the mercury rises from 44.6° to 53.6° F.: and again at sunset it falls as rapidly as in the morning it Secondly, the great radiant heat of the sun is another characteristic; for instance, the maximum sun tem perature in the upper Engadine on February 4th, 1876,

The number of hours of possible sunshine in winter is somewhat greater in the Engadine than at Davos; for example, on January 1st, the sun rises at Maloja at 9:35 and sets at 3:45, while at Davos it rises at 10:03 and sets

The average rainfall, most of it being snow, is 32.67 inches; it lies on the ground for over five months, beginning about November 14th. The relative humidity s 75 per cent. The mean annual temperature is about 36.5° F., and for the seasons as follows: Winter, 18.1° F.; spring, 33.7° F.; summer, 50.9° F.; autumn, 36.5° F. There is said to be rather more cloudiness in the Upper Engadine than at Davos. As at Davos, the purity and exhibitanting quality of the air in this region constitute, in brief, the great striking characteristic which all experience who enter this valley. The writer can never forget his own sensations as he came over the pass from Chiavenna into this delicious atmosphere. Merely to exist was a delight, and to spend the day in tramping over a glacier or mountain climbing was exquisite pleasure, and after such exertions no sign of weariness was experienced

A considerable number of consumptives take the winter cure here, and there are excellent accommodations at Samaden, St. Moritz, and Maloja; at the latter is the large Kurhaus, accommodating five hundred guests and especially arranged for a winter residence; the ventilation and sanitary arrangements are of the best. In the village of St. Moritz is the great caravansary "Engadiner Kulm," with a wonderful view over the whole district of St. Moritz. Here one can find every comfort, and even luxury,-large reception-rooms, a library, a dining-room for three hundred and fifty persons, and a fine collection of engravings and pictures. The English and Americans chiefly patronize this hotel. St. Moritz is the highest village in the Engadine or in Switzerland, having an ele

A mile or two from St. Moritz village are the St. Moritz baths. These are supplied from two acidulous iron springs,—the old and the new, containing soda with a large proportion of fixed solids and free carbonic acid. These waters are used both for drinking and for baths and are visited in the season—from the middle of June to the middle of September—by numerous patients of all nations. The conditions benefited by these waters are anæmia, chlorosis, dyspepsia, menstrual irregularities, various derangements of the nervous system, etc. There is a large Kurhaus with many rooms, two bath houses containing eighty baths, and complete hydrotherapeutic arrangements (warm, cold and Scotch douches, sitz baths, vapor baths, etc.), as well as facilities for massage. There is a covered promenade leading from the Kurhaus to the spacious pump room of the new spring. There are generally about three hundred and eighty patients in the Kurhaus, and every attention is given to their comfort

What has been said regarding the winter climate of Dayos in the treatment of pulmonary tuberculosis applies equally to that of the Engadine: there is no material difference between the "air cure" of the Davos and that of the Engadine valley, and the results should closely re-semble each other. In the winter resorts of the Unper Engadine there is greater variety of scenery and the life is more restful and quieter.

Regarding the uses of such a climate as that of the Upper Engadine for cases other than tuberculosis, a few words can properly be said here, applicable also, in a measure, to all high-altitude resorts. Whatever the malady or condition there should exist a "certain integrity and reactionary power of the constitution," if the patient is to be benefited by a climate which is stimulating and bracing, such as this. This being presupposed, we can, the acute and the chronic catarrhs of the intestine, and

say, in general, that where functional activity needs to be improved, and the whole system toned up, a few weeks residence in this pure, clear, dry, bracing air will almost surely produce favorable results. "I believe," says Burney Yeo, "this kind of climate is especially useful to those who have been strong, but by some accident or other, such as overwork, or illness, or trouble, have become weak; to those who possess a latent power of reaction. To enumerate especial conditions, there may be mentioned, nervous dyspepsia, want of appetite, sleeplessness, malaria, neuralgia, anæmia, the later stages of convalescence from severe illness, hypochondriasis, asthma uncomplicated with emphysema or organic disease of the heart or arteries, chronic bronchitis with much secretion and those various mal-conditions arising from "insuffi cient exercise in the open air and deficient absorption of

Burney Yeo happily expresses it when he says that much of the benefit that is derived from a short residence in an elevated region like that of the Upper Engadine is due to the alterative influence which it exercises on the human organism. "In passing," he continues, "from the sea-level to an elevation of over 6,000 feet we must alter in a very essential manner the conditions of our

It is well also to bear in mind some of the contra-indica tions of a mountain climate like this. Such are, weakness from extremes in age; constitutional weakness; organic cardiac disease; atheroma; chronic bronchitis with dilated bronchi; and emphysema, muscular debility and general exhaustion, rheumatism and inability to endure great and sudden changes of temperature.

Finally, if we are not in search of health or better

health, we all need change occasionally,—"that change which is the type of life and the condition of health; that change which is rest." Where can a more complete or a more refreshing change be found than among the grand glaciers and majestic mountain peaks of the Upper Engadine, where we can "draw in easier breath from larger air." Edward O. Otis.

ENTERITIS.—An inflammation of the small intestine involving particularly the mucous membrane, and to a less extent the submucous layer. It may be either acute or chronic. The whole length of the intestine may be involved or, more usually, the inflammation is limited to certain portions of this.

The meaning of the term enteritis has varied consider ably as used by different authors, and at different periods in medical literature. It does not appear to have been in use by the apcients. In the eighteenth century it was applied to the group of symptoms now included under peritonitis, although Cullen (1784) mentions two varieties of the disease, one of which evidently refers to an inflammation of the mucous membrane and subjacent tissues of the intestine. In France, at about the end of the eighteenth century, Pinel limited the use of the word to an inflammation of the intestinal mucous membrane. meaning was further restricted during the first half of the nineteenth century by Broussais (1821), who applied it to an inflammation of the mucous membrane of the nall intestine only, and gave the name colitis to a similar process in the colon. This restricted meaning has peen more or less generally retained up to the present

At the beginning of the last century the lesions of the ntestinal lymphoid structures found in typhoid fever were included under the general term enteritis, and this use of the term was continued to some extent even after the specific nature of the lesions had been demonstrated. At present the term is avoided by some authors, "intestinal catarrh" being used instead as indicating the character of the most frequent form of inflammation of both the large and the small intestines. While it is recognized that the same etiological factors may produce similar changes in either the large or the small bowel, that usually each is involved to a greater or less extent in both

that at times it is difficult to determine the exact parts involved, yet, as the symptoms referable to the one or other part of the intestine vary to some extent, and as the treatment must necessarily differ accordingly, it may be wise to use the term enteritis, as will be done in this article, as applying to the small intestine, the term colitis being used for the affection of the colon, and ileo-colitis for the combined involvement of the two.

The summer diarrheas of children will not be discussed here, nor will the specific infections of the intes-

As the catarrhal variety of enteritis is by far the most common, and for this reason the most important, both the acute and the chronic forms of this will be discussed at some length.

CATARRHAL ENTERITIS.

Catarrhal, as here used, has the common meaning of the term, that is, as indicating an inflammation of a mucous membrane characterized by a free exudation from the surface, usually rich in mucus. During life such an inflammation is evidenced by the presence of the inflammatory exudate which is discharged from the body, as well as by various other symptoms which are explained by the process.

ETIOLOGY.—Acute Catarrhal Enteritis.—The causes of this are most numerous. They may act as predisposing to, or direct excitants of, the inflammatory process. The dividing line between these two classes is frequently difficult to determine. The disease of the intestine may occur alone, or it may accompany or result from various other disorders. It is to be noticed that because of its position and the length of its canal, the small intestine is particularly liable to be affected by any kind of irritating substances which are ingested, unless these are rendered harmless in the stomach, as well as by certain excretory products which pass through its wall; and of prime in portance among the predisposing factors is the ease and frequency with which an abnormal condition of the blood supply of the intestinal wall occurs, in part due to some obstruction to the returning blood in the portal system, and in part to the lack of sufficient support for the blood-

vessel walls by the surrounding tissue.

An unsuitable dietary is probably the most frequent An unsuitable dietary is probably the most frequent direct cause of intestinal derangement. This may be at fault only in quantity, or in quality, or in both. Food which is entirely wholesome may, when eaten in too great quantities and only partially masticated, excite a diarrhea, as may also unripe fruit, uncooked vegetables, etc. This may be only an evidence of increased peristalsis, but often it results from a true catarrhal inflar of the intestine. The undigested food here acts either as a mechanical irritant, or it furnishes favorable conditions abnormal bacterial development in the intestinal canal. This microbic growth, in which the common inhabitants of the intestine chiefly take part, gives rise to a variety of active irritants. These in large part are only excessive quantities of substances normally present, chiefly acids, such as lactic, butyric, acetic, and formic, these, substances of a more decidedly toxic nature may be formed here, probably closely resembling those referred to in the next group. This group embraces those foods which, before being eaten, have already undergone bacterial decomposition and contain poisonous products resulting from this. Such are tainted meat and fish, at times milk and its various products, etc. The active toxic agents in several of these are already known. Among them may be mentioned Vaughn's tyrotoxicon, Firth's lactotoxin, and the various ptomains which Brieger has isolated. At times the inflammation can be explained as due to some idiosyncrasy. Thus lobsters, cheese, eggs, etc., when entirely wholesome and in moderate quantities, may in certain individuals give rise to an acute enteritis. Foul water also frequently produces

a similar disturbance. Among the active poisons whose entrance into the ali-

mentary canal is followed by severe inflammatory processes are included arsenic, corrosive sublimate, antimony, the mineral acids and caustic alkalies, and many others. The drastic purgatives, as croton oil, colocynth, elaterium, etc., in unsuitable doses may produce enteritis.

Exposure to cold, particularly a sudden chilling of the body after over-heating, is a recognized cause of the disase. In what way this acts, whether reflexly through the nervous system, as seems probable, or otherwise, is a question; but some disturbance of the intestinal function produced sufficient to excite an inflammatory process. Cold drinks, ice, ice-cream, etc., when taken in immoderate amounts may have a similar result.

Excessive summer heat is also a common cause of catarrhal enteritis, particularly in young children; hence the popular term "summer complaint" so frequently applied to this. Its action is largely an indirect one, fur nishing favorable conditions for bacterial growth in food before its consumption. Extensive burns of the skin may give rise to an inflammation and ulceration of the duodenum. The actual exciting agent here is probably a toxic substance which is formed at the site of the burn, nd is excreted into the upper portion of the intestine

The rôle of bacteria in producing decomposition products in various articles of food has already been referred No specific micro-organism can be accepted as the usual cause of enteritis, although the common colon bacillus is undoubtedly a frequent factor, due to conditions which favor its rapid development and increased virulence in the intestinal canal. Gärtner has cultivated and described a bacillus which was obtained from the flesh of cow having an intestinal disease, and also from the a cow having an intestinate that the specific produced by eating some spleen of a man who had been poisoned by eating some of this meat. Cultures of this produced a marked enteritis in susceptible animals. To this organism was given the name Bacillus enteritidis. Gaffky has likewise found in the stools of a cow having a bloody diarrhea, and in those of patients who were made sick by the milk from this cow, a small highly virulent bacillus. Each of these, however, closely resembles the Bacillus coli communis, and they are probably members of the so-called colon

Traumatic causes, such as blows on the abdomen, may give rise to intestinal inflammation. Gall stones may mechanically produce this, as can also the presence of certain intestinal worms.

Among the more important predisposing causes is age. Young children show but slight resistance to intestinal irritants, so that even cow's milk may be sufficient to produce a catarrhal enteritis in an infant. Old and de-bilitated persons have an increased intestinal susceptibil-ity, and chronic congestion of the intestinal wall predisposes to the disease. Previous attacks of inflammation sually render the mucous membrane very susceptible for a time to slight irritation.

A catarrhal enteritis accompanies numerous other diseases of the intestines, as tumors, invagination, peritonitis, etc., and also occurs in many of the acute infectious

The causes of Chronic Intestinal Catarrh are largely those of the acute form of the disease. A severe acute attack of enteritis, when prolonged because of unfavorable conditions for recovery, may gradually pass into the chronic type. Or the repeated action of slight irritants, as indigestible food, alcohol, purgatives frequently emploved, intestinal parasites, etc., may give rise to this condition. Here the process is at times evidenced by several acute attacks, or the symptoms of chronic enteritis constitute the first appearance of the disease. Anything which interferes with the normal circulation of the blood or lymph in the vessels of the intestinal wall tends to render it susceptible to inflammatory excitants. Thus cirrhosis of the liver, and chronic diseases of the lungs and heart, which give rise to a continuous overdistention of the venous system, are very frequently associated with a chronic enteritis. Continual excretion of toxic substances through the intestinal wall, as occurs in chronic nephritis, and probably also in tuberculosis, malaria, and other diseases favors a catarrhal inflammation. Overwork of all kinds, whether physical or mental, predisposes to the disease. Secondary forms of enteritis frequently follow various gastric disturbances, as well as ntestinal tumors, displacements, and adhesions

PATHOLOGY. - Acute Catarrhal Enteritis. - An external examination of the intestines may show them to be considerably distended in cases of acute enteritis of some duration, this change being due to a partial paralysis of the muscular coat, or to an accumulation of gases in the In severer cases, with early fatal termination, there may be a lessening of the intestinal lumen due to muscular contraction. The color, as seen from the serous surface, depends upon that of the contents of the intestines and upon the vascularity of the walls. It may be pale when the intestine is distended, red in spots corresponding to areas of congestion of the mucous membrane, reilowish due to bile, or dark red when blood pigment is included in the intestinal contents.

The appearance of the mucous membrane may vary much from what the severity of the disease would suggest. At times neither redness, nor swelling, nor increased cretion may be found post mortem, even when during life the symptoms of intestinal catarrh have been marked It is not usual to find the whole length of the intestine uniformly involved, though this may occasionally be seen in the secondary enteritis of infectious diseases, as scarlet fever and measles. It is more common to find portions of apparently normal mucous membrane separating the inflamed areas, which may be from only a few centimetres up to a metre or more in length. The inflammatory process may be confined to a single anatomical division of the intestine (hence a duodenitis, je junitis, or ileitis), but this is exceptional. More often the lower part of the ileum is involved, a part or the whole of the colon showing a similar conditi

The acute catarrh is characterized by a marked hyperæmia, either diffuse or localized, the latter being seen particularly in the vicinity of the lymph follicles and on the crests of the valvulæ conniventes. This congestion may be so great as to give rise to numerous punctate The color varies from a bright red to purplish. But the entire wall may be gray, probably due to a post-mortem disappearance of the hyperæmia. distention of the vessels in the more dependent loops of the intestines, due to a settling of the blood after death, is not to be mistaken for an inflammatory congestion In rapidly fatal cases the hyperamia may be the only macroscopic evidence of inflammation. More commonly the mucous membrane is swollen, and on its surface there is a collection of a greater or less quantity of mucus, either in a uniform layer or in small masses. This may be quite translucent, or opaque, the cloudiness being then due to the epithelial cells contained in the mucus, and not to pus formation; or it may be stained by the various substances in the intestinal canal-yellow or reenish by bile red or brown due to the presence of blood pigment, or dark from bismuth

The active exudation on the part of the inflamed mu-cous membrane is indicated by the watery character of the intestinal contents. Here at times may be found considerable masses of cast-off epithelial cells. To this condition the term desquamative catarrh has been applied. That this process is not entirely a post-mortem one is shown by the presence of epithelial cells in the stools during life, and the finding in the colon of hollow, finger-shaped masses of epithelial cells which covered the villi of the small intestine. The valvulæ conniventes may be thickened and the villi swollen so that the latter can be seen more easily than they normally can. Due to this enlargement of the villi the surface of the mucous membrane at times has a somewhat velvety appearance. Not infrequently, in severe cases of enteritis, there occurs a localized superficial necrosis of the inflamed membrane with resulting ulceration. These ulcers are at first small, rounded, flat, with walls that show but little infiltration, but they may gradually enlarge (catarrhal ulcers).

The lymphoid structures of the intestine are often en-

larged, appearing as grayish projections with a hyperæmic border. The solitary follicles may reach the size of a pin's head. At first they are somewhat translucent, increase in size being then due to ædema. As hyper plasia and cellular infiltration occur they become opaque In the agminated glands the enlargement may be uniform over the entire patch, or only single follicles or groups of these are swollen. At times these changes in the lymphoid structures are very marked (follicular enteritis). The superficial portion of the follicles may become necrotic, and by a separation of this necrosed tissue there result small round ulcers, the so-called follicular ulcers. This follicular enlargement and ulceration are seen most frequently in children and may take place very rapidly. It has been found in a child eight years old in whom death occurred two days after the onset of the symptoms (John ston). Such ulcers may increase in size and unite with neighboring ones to form irregularly shaped ulcerated areas, in the midst of which there remain small portions of mucous membrane. In the small intestine this process is ost marked at the lower part of the ileum, although here it is usually less advanced than in the colon.

Microscopically there may be seen more or less cedema and cellular infiltration of the mucous membrane. The distance between Lieberkühn's glands is frequently increased, and the epithelial cells lining these may show various forms of degeneration (mucoid, etc.). There may also be a marked proliferation of the endothelial cells of the lymph vessels. Only in the severer cases of acute catarrhal enteritis does the submucous laver show pronounced hyperæmia or a cellular exudate around the The muscle coat is not involved in acute ca-

In the lighter forms of enteritis there can be a complete recovery from the disease without leaving any permanent anatomical change behind. When the catarrh is of longer standing a complete restoration to the normal condition may not take place, but there may follow a form of atrophy of the mucous membrane in which the glandular layer is thinned. Such a resulting atrophy of some portion of the mucosa is very frequently observed in adults (Nothnagel). Small pigmented areas indicate the sites of the healed ulcers.

In Chronic Catarrhal Enteritis the changes from nor-

mal which are found in the intestine are fully as varied as those of the acute form of the disease. In general, the exudative processes here are less pronounced than the proliferative; the latter in turn, in long-standing cases, frequently being followed by atrophy of the affected mucosa. Also the deeper layers of the intestinal wall are involved to a greater extent than in the acute

The mucous membrane is at times found to be strikingly pale. This is seen not infrequently in autopsies upon small children who have died as a result of the disease. On the contrary, when a chronic congestion of the abdominal vessels has been prominent the color may be a dark red due to the hyperæmia; or altered blood pigment may be deposited in the tissue in sufficient quantities to give it a slaty hue. The pigmentation here is most marked in the vicinity of the follicles and on the

In chronic as in acute enteritis the whole length of the intestine is rarely involved, but areas of diseased and of normal mucous membrane alternate. The ileum, particularly the lower portions of this, shows the character istic changes more frequently than does the jejunum or the duodenum; but the processes in the large intestine resulting from an accompanying colitis, are often more marked than those of any part of the small intestine.

The intestinal wall becomes thickened as a result of proliferative changes occurring in it. Both the mucous and submucous coats are involved, and the glandular as well as the connective-tissue elements take part in the process. The tubules of the glands elongate, become distended, and produce abnormal quantities of mucus which appears as a layer often quite adherent to the surface of the mucosa. At the same time the glands are

somewhat separated by newly formed connective tissue. When the hyperplasia is circumscribed there may result polypoid projections of the thickened mucosa, but this is less frequently seen in the ileum than it is in similar processes of the large intestine.

The subsequent changes that occur in the thickened wall are largely atrophic in nature. As the young connective tissue of the mucous and submucous coats gradually contracts, it compresses the glands of Lieberkühn, and as a result they undergo more or less complete atrophy. The villi likewise largely disappear so that the mucosa becomes thinned, and also smoother on the surface than normal.

The hyperplasia of the lymphoid tissue may be even more marked here than in acute enteritis; later, this too may atrophy, leaving behind smooth, darkly pigmented spots in place of the follicles. Here also are found both catarrhal and follicular ulcers. These gradually enlarge and become deeper. They may even extend to the serous layer, giving rise to a circumscribed chronic peritonitis by which adhesions between the different peritoneal surfaces are formed.

Complete recovery, in the anatomical sense, does not occur in chronic enteritis. An atrophy of the mucous membrane, smooth pigmented dots at the site of the follicles, scars resulting from healed ulcers, or some other structural evidence of the process still remains

SYMPTOMS, COURSE, AND DIAGNOSIS.—Catarrh of the small intestine, as already indicated, does not commonly occur alone. It is usually combined with inflammation of the colon, as an ileo-colitis; hence the symptoms observed, and as here given, both in the acute and the chronic forms, are evidences of disease in both the large and the small intestines. Those will be emphasized which

are referable to the process in the latter. An attack of Acute Catarrhal Enteritis usually begins suddenly, following directly upon the action of the exciting cause, the connection with which is often evident. There is at first a feeling of fulness and discomfort, soon amounting to actual pain, in the lower part of the abdomen. This pain, which is colicky or griping in nature, is quickly followed by diarrhea. After each evacuation there is a lessening or cessation of the abdominal pain which reappears before the next movement. The number and abstract of the atolesance investment. ber and character of the stools are important in establishing the diagnosis, and in determining the extent and seng the diagnosis, and in determining the critical ways werity of the process. They usually vary from two to three daily, in the lighter cases, up to fifteen or twenty or even more in the severe attacks. If diarrhea is not present, as may happen when the small intestine alone is involved, the recognition of the catarrh becomes more difficult. In general the more the large intestine is involved the greater is the number of movements. The consistence of the first stool may be that of the normal faces, or it may be jelly-like. The subsequent ones rapidly become more liquid, gruel-like, and later watery, and are often frothy from the admixture of gas, the result of bacterial growth. The stools at first may give the usual faceal odor, but this soon changes, becoming more offensive. There may be a marked sour smell, particularly in milk-fed patients. Later, the watery discharges may become nearly odorless, but these if allowed to stand rapidly develop an offensive odor.

The color of the discharges depends largely upon the extent to which the small intestine is involved. the upper portion of this takes part in the enteritis the stools vary from brown to light yellow from the presence of unchanged bile pigment; or, in children, but not in adults, they may be green from the oxidation of this.

The presence of bile may be demonstrated by Gmelin's nitric-acid test. The discharges may also be variously nitric-acid test. The discharges may also be variously colored by articles of food, or by medicines (bismuth, iron, etc.), and by the presence of blood. The copious liquid stools may be nearly colorless. When there is a duodenitis, with catarrhal occlusion of the common bile duct, the fæces may be very pale because of the absence

Mucus is always present in the fæces. This may be

in larger or smaller shreds, readily recognized, or only in minute gelatinous particles intimately mixed with the stool. It may be unstained, colored yellow by the bile, or pigmented by the other intestinal contents. Epithelial cells, either fairly well preserved or showing various degrees of degeneration, are contained in the mucus. These nay be present in sufficient numbers to give it an opaque appearance which macroscopically resembles pus, but pus cells are not often found in large numbers in the stools of acute catarrh. Blood, which is at times present in the stools in catarrhal enteritis in small quantities, indicates a narked inflammatory hyperæmia or ulceration.

In the early stages of the disease remnants of undigested food are frequently passed per rectum, such as pieces of meat, particles of starchy foods, etc. When these bits of meat consist of connective tissue only they indicate a disturbance of the gastric function, but when muscle masses are found they are to be referred to a disturbance in the intestinal digestion (Schmidt). Such undigested food may occasionally be found even on the fourth or fifth day of the disease, having been retained in the bowel up to this time, and having served to excite the inflam-mation. Bacteria are usually present in the stools in large numbers. Prominent among these will be found the normal inhabitants of the intestinal canal, but at times streptococci may readily be seen.

Among the subjective symptoms the most prominent the feeling of discomfort in the abdomen, with the colicky pains already referred to, which precede the evacuations. This sense of discomfort may be slight and may pass off in a few hours or a day or two, but in the severer cases the suffering may be so great as to produce a feeling of faintness, with coldness of the surface and sweating. These more severe pains extend to the geni-tals and lower extremities. There is a feeling of thirst, but all desire for food is lost. Only when the large intestine alone is inflamed may the appetite remain. sea may be present, at times accompanied by vomiting even when no lesion of the stomach can be found post mortem. There is always some feeling of debility and malaise, which in children or persons weakened in any way may amount to severe prostration.

way may amount to severe prostration.

The abdomen is often somewhat distended and is tender on pressure, either diffusely or in particular regions. Loud borborygmi, due to the presence of gas in the intestine, are frequently heard. Little of value is obtained by percussion. Fever, as a rule, is not present in simple catarrhal enteritis, and when it does occur is slight in degree and passes off in a few days. On the slight in degree and passes off in a few days. On the other hand, the attack may be ushered in with a chill, followed by a pronounced rise in temperature, and a susvicion may be aroused that the case is one of typhoid The spleen, however, is not usually enlarged, although Fischl describes this as of occasional occurrence.

The quantity of urine varies inversely to that of the vatery stools. It may be but little changed from normal, but is frequently small in amount and concentrated.
Temporary albuminuria with hyaline casts is occasionally present (Fischl), and this even in the less severe cases, without fever or collapse. The casts may be found within a few hours after the beginning of the diarrhea. As rule they disappear quickly as the catarrh improves. Jaundice is common when the duodenum is involved.

Such special symptoms as may occur in the secondary forms of enteritis belong rather to the primary disease

and will not be discussed here.

The Diagnosis is ordinarily made without difficulty Some error in diet, exposure to cold, or other etiological factor is often evident. The acuteness of the onset, the gastro-intestinal disturbance, the presence of mucus in the diarrheal stools, slight distension of the abdomen with diffuse or localized abdominal tenderness, and loud borborygmi, can hardly be mistaken for any other condition. The febrile cases may so closely simulate ty-phoid fever for the first few days that a Widal's test of the blood may be necessary to eliminate this. In epidemics of cholera, the watery discharges of enteritis may so closely resemble those of the former disease that a bac-