On functional disorders of the Stomach.

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Before proceeding to discuss the Causes, Symptoms & Treatment of functional disorders of the Stomach which form the subject of this paper, I shall briefly describe the manners in which healthy digestion is performed. The food is first subjected to the action of the teeth by which it is crushed, divided, & mixed with the fluids of the mouth (saliva secreted by the various salivary glands & mucous from the whole buccal cavity) when this is thoroughly effected it is carried by the act of deglutition into the stomach, where it is acted on by the gastric juice. In the course of from three to five hours, the food is converted by the action of the gastric juice, assisted by the muscular movements of the stomach into a soft pulpy mass called chyme. The chyme thus formed is expelled through the pyloric orifice of the stomach into the duodenum & thence through the intestinal canal.
In this course the chyme is mixed with the bile, the pancreatic juice and the secretions of the intestinal glands; part of it is converted into chyle which is absorbed, while the undigested part is separated and expelled. If the first part of the process is imperfectly performed, either by faulty secretion of gastric juice, or want of contractility in the muscular coat of the stomach, the food is not converted into healthy chyme, but remaining too long in the stomach it undergoes changes which give rise to functional disorders of the organ. Functional disorders of the stomach also arise from some faults in one of the secretory organs, from sympathy with some neighbouring organ in a state of disease, and from other causes. Under the following heads I venture to classify and describe the functional disorders affecting the stomach.

1st. Functional disorders of the stomach arising from anatomic or organic state of the organ.

2nd. Functional disorders of the stomach arising from an irritable state of the organ.

3rd. Functional disorders of the stomach arising from irritation caused by disease in some other organ.

4th. Functional disorders of the stomach arising from defective action of one of the secretory organs or in the nerves of secondary stimulation.

5th. Functional disorders of the stomach defined by peculiar symptoms.
1st. Under the term atomic gastrine dyspepsia or want of tone in the stomach, the older authors included not only all the functional disorders of that organ, but also disorders of the chylotic productive visceræ. This term is still used to express different morbid states of the stomach. 1st. When from any cause the supply of nervous force is impaired, by which the irritability of the stomach is diminished. 2nd. A diminution in the contractile power of the muscular fibres of the stomach. 3rd. A depraved or deficient secretion of gastric juice. This atomic state of the stomach is divided by Dr. Todd into acute and chronic gastric dyspepsia, having many symptoms in common, as loss of appetite, nausea, heartburn, sense of weight at epigastrium after meals &c. yet having symptoms which enable us to distinguish one from the other. Thus and so in treating this the most important of the purely functional disorders of the stomach—Acute Gastric Dyspepsia—Enteras gastrique of French authors.—One of the most distinguishing features of this form of dyspepsia is, that it comes on in paroxysms varying in their duration with intervals of a comparatively healthy state of digestion, these paroxysms are brought on by incidental causes.
And as the disease advances slight causes are capable of inducing its return. The other symptoms of the disorder are extreme nausea accompanied with vomitings which bring up bitter or acrid fluids or gaseous matters, sense of weight at epigastrium with little pain, an unpleasant taste in the mouth, tongue moist or lip coated, pale, sometimes dry, pulse generally normal, sometimes feverish, rising at first pale and clear, afterwards bluish and blue coloured, depositing mists in large quantity. Besides these a very common symptom of the disease is headache situated chiefly in the forehead. The pain being of a dull and heavy nature, it is commonly called field headache.

Causes - This disorder occurs generally from the age of fifteen to forty-five, more common among women than men and in warm than cold climates. It is said to be hereditary, the patient being of a relaxed constitution, but this state is often brought about by violence, deplorating habits.

People of sedentary habits are predisposed to this disease, but all causes except irregularity of diet cause it. Induced this disease in its most aggravated forms. An attack of this disease often arises when the food is in fault either in quantity or quality, but especially if taken after great mental
Excitement, over fatigue, intemperance, want of sleep or other causes which impair the power of the stomach; then a tendency to the disease has shown itself very slight causes being on a free opinion, mental emotion of any kind, slight irregularity or excess in diet, constipation, change of weather 

Chronic gastric dyspepsia. This form is distinguished from the acute by creeping on by degrees and not attracting attention until it has existed for some time. The symptoms are, particularly after meals, bloating, acid sensations, heartburn, sense of heaviness in the head, of distension after eating followed by flatulence. The diet is also often disturbed by night sweats and uncomfortable dreams, there is an unpleasant taste in the mouth on rising, with little relief for breakfast, also a distant for bodily or mental exertion, the face becomes heated and pale, tongue covered with a white fur, often pallid, breath fetid, bowels irregular, generally sluggish, urine variable, one of any deposits whatsoever in excess at other times frequent often frothy, inspissated, moving slowly, or covered with a film, thin moist & clammy & perspiration excited by the least exertion. By change of air, exercise, regulation of the diet & suitable remedies the disorder may be removed. But if this is not attended to very serious arrangements of the health & life. Place
Causes. They are much the same as those of the acute form with some exceptions. This form of the disorder affects men rather than women, occurs at an earlier age, in life, in cold rather than in warm climates. Persons of a nervous or phlegmatic temperament, those who have suffered from long illnesses, an unhealthy atmosphere, bad nourishment, also those who have led a sedentary life with great mental exertion are predisposed to this disease. The frequent use of narcotic medicines, the abuse of tea, coffee, tobacco, tobacco, irregularity in the times of taking food, the use of unwholesome substances as rich dishes, fruits, pasty, the like are common causes of this disorder.

Treatment. The acute form of this disorder arising as it often does from eating some indigestible substance may sometimes be checked in the outset by the administration of an emetic. This may be employed when the symptoms are those of sense of weight in the stomach, retching, and evolutions after food, a feeling of some indigestible matter in the stomach. When the paroxysms are not habitual but have existed only for a short time. The emetics used in these cases should be of the mildest form. Taking the patient, warm water alone or with a little salt or such like; after vomiting a small quantity of cold water is the best remedy for restoring the stomach.
If this stage is passed over and no symptom given, the symptoms of dyspepsia being still present, relief is often obtained from taking a purgative which should be warm and Judy in its action. The mixture of charcoal is perhaps the best. If the symptoms of the disorder have been arrested, an

most important though little attended to part of the

is to be insisted on viz. that of the water. After an

emetic or purgative has been administered there is

often a marked feeling which is construed into

that of hunger and desire for food, but this ought not to

be indulged in. As the stomach returns to its former

state the patient may take such food as is easy of

digestion in small quantities avoiding all such

matters as are indigestible.

Chronic dyspepsia Diphrepsia being of slow insidious

progress, the treatment accordingly is of a different

kind, & what I would indicate as the treatment

of the acute to chronic form of the disorder is useful in preventing the return of the acute. The first &

perhaps the most difficult is as well as the most

important part of the treatment is the regulation

of the diet so that the quantity & quality of the food be

suited to the disease. The quantity of the food

taken should correspond to the power of the

stomach in digesting it & to bring this about the


best plan perhaps is to take away the most indigestible substances in the patient's former diet; as salted meats, fat meats as pork, bacon, young meat, puddings, tararo, most vegetables, fruits, & condiments, also fermented liquors & home made wines; all is reduced to little more than a small quantity of easily digested animal food, with a proportionate diminution in the quantity of fluids. I would here try to give a brief sketch of the diet suitable for patients labouring under this & other forms of functional disorders of the stomach.

Breakfast may consist of a soft boiled egg, stale bread, and a breakfast cupful of coffee or weak tea. Unless it is found to disagree with the patient a mutton chop may now or then be substituted for the egg.

Dinner, to consist of the most easily digestible meats as mutton, tender beef, game, etc., bread & well boiled rice. Vegetables ought to be very sparingly if at all indulged in, & pasty, sweetmeats, fruits, & The like should be strictly forbidden. Fluids must be taken with the greatest moderation; the slightest sensation of thirst should not the at all times be gratified, if the patient has a marked disposition to object to the slightest sensation of thirst by means of objection or habit require a stimulant. Alcohol, medication, & some of the light wines are most suitable diluted with an
Equal bulk of water. The quantity should not exceed a wine flagonful of each. If water produces acidity, brandy diluted with water may be substituted. Three or four hours after dinner a cup of coffee or some dry toast or biscuit may be taken. For supper arrowroot, pears, partridge made of oatmeal or such like may be taken. The latter is often of great service in regulating the bowels.

Exercise. Want of exercise is one of the most common causes of the chronic form of the disease. As it gives tone to the stomach and enables it to digest food in larger quantity, it is a most important means part of the treatment. Dyspepsia. At first the patient should take gentle exercise either on foot or horseback between breakfast and dinner. This should be extended by degree, if possible taking a walk before breakfast but not of such a length as to cause fatigue; but for at least two hours after meals no exercise ought to be taken. Great benefit is derived from emptying the bowels every morning, and also after exercise using friction but not too violently. As well as the body the mind requires healthy exercise, as the disease often arises from the either too great excursions of the mental powers or from an indolent and sluggish state of the mind. The studies should therefore, when not overstrain the mind, be of their mental
Occupations cannot be wholly abstained from, but after meals at least the mind should be not be in any way excited. The indolent should seek for some amusement to occupy their minds but not overstrain the mental powers. The next part of the treatment is the application of medicines directed not only to the stomach itself but to the system at large. In this disorder the bowels are generally constipated, & the excretory organs (the liver, kidneys, &c.) to fail in their action, & unite. This is first removed medicines directed to correct the mental condition of the stomach can do no good. This state if the bowels is corrected by the use of agents & those are best which effectually seduce the great intestine & gently solicit secretion in the upper part of the canal without producing irritation. This may be effected by such a dose as the following: Three grains of the Compound Collyridial Pill mixed with two grains of thin pill, to be taken at bedtime, followed by an apertient draught in the morning, as the Compound Saddity Powder. Against medicines are known to the sparingly employ 20t. of regular evacuations cannot be obtained by a proper regularity of eating a sufficient quantity of exercise or Compound Wharfert Pill or equal parts of it & Compound Collyridial pill may be taken, but the help of this if the smaller the dose the better so much only being taken as will secure the desired effect.
After this preliminary treatment a course of medicines is to be employed whose action tends to restore the organ to its normal condition. The medicines used for this purpose belong to the class called tonics, the precise mode of action of which is not yet fully understood. Of these one may commence with the infusion of one of the bitter vegetable bitters as calomel, gentian, chicory and the like; these may be used either alone or combined with other remedies like the mineral acids, alkaline carbonates. When no great benefit is derived from the use of the vegetable bitters, the use of more powerful remedies may be tried as the preparations of iron (especially the solution of iron), uric acid, and the like. These may be given alone in the form of the Tinct. Ferri or in a little water or with gruits. The combination of tonics and aperients are often given with the best effects as rhubarb combined with chintart, iron with aloes, sulphate of potas, with aloes or extract of scissors and the like. Often when these remedies fail to restore the stomach to its normal condition, great benefit is derived from the use of mineral waters, the best perhaps being the carbonate chloridric water as those of St. Peters on the continent, or Melbourne Wells in this country. These however are contra-indicated if there is any marked disarrangement accompanying it is when it is present that most benefit is obtained from the combination of tonics and aperients.
Besides the general treatment of the disorder, there are painful symptoms causing great uneasiness to the patient which must be alleviated. The most important of these are flatulence, heartburn, nausea, vomiting, and headache.

1) Flatulence. This symptom is generally relieved by the use of a class of medicines called carminatives; they may vary somewhat. Among those most employed are peppermint, cardamoms, cinnamon, cloves, ginger. They may be given in the substance, infusion, tincture, or the volatile oil. Various stimulants also may be had recourse to - Cayenne pepper, Apazitida, Camphor.

The combination of carminatives with carminatives are often of great service - Magnesia, Muriatic acid or alum combined with a volatile oil, apazitida, pepper.

Heartburn - The most common mode of allaying this symptom is by the administration of one the alkalies or alkaline earths either alone or in combination combined with a bitter infusion. The same thing a gently laxative effect is stated. Magnesia should be employed, when a laxative is not required the bicarbonate of soda is said. When the heartburn is of long standing, if the patient's diet does not change, often by sitting in the sun. When other means have failed, combined with either alone they may be used either alone or in combination with a bitter infusion - Five drops of diluted Spirit am taken expectorily is recommended by Dr. Todd as a useful remedy.
Hoarse Breathing. If this continues after the stomach has been cleared, the remedies to be employed to check these disagreeable symptoms are Uricum, in the form of tincture or of the salts of morphia either alone or combined with an offscreeing draught, Aromatics along with antacids as Magnesia. Aromatic Spirit of Ammonia has been found very useful in the doses of from fifteen to twenty drops. Hydrocyanic Acid has also been employed, but is found more serviceable in other states of the stomach than within. Cresote is a remedy which has been highly recommended for checking acute vomiting; it is given in doses of a drachm frequently repeated. Brandy or water in small quantities are often effectual; but often nothing will do but abstaining from food for some considerable time till the stomach recovers from the temporary irritation which has induced the vomiting. Headache. If this be depends on acid in the stomach, magnesium or carbonate of soda combined with some aromatic or tincture is to be administered. If from bile some gentle cathartic or an emetic allays the symptoms. A warm bath to the feet, fathcing the temples with cold water, Eau de Cologne, Spirit of lavender or some aromatic spirit sometimes affords relief when internal means have failed. If it prevents sleep an opiate may be given followed by a cathartic, this is often followed by quiet relief.
Functional disorder of the stomach arising from an unstable state of the organ. This state of the stomach is treated of by French authors under the name of Gastralgia, and was very accurately described by Dr. James Johnston: see also in an Essay on Nervous Sensibility of the Stomach, Pemberton also wrote of this form of disease under the term of pain in the stomach after taking food which is one of the principal symptoms of the disorder. It arises from an unstable state of the body induced by anxiety, disappointment of the bile and when it arises from bodily suffering it seems to be from its effects on the nervous system. Both this unstable state of the stomach and the atomic state seem to depend upon a deficiency of vital power; in the one case increasing the morbidea sensibility and susceptibility of the organs, in the other diminishing it so much as to render a stimulus to increase the sensibility of the organ when this unstable state of the body is present; any matters which induce local irritation of the organs thus heighten the sensibility of the stomach give rise to Irresistible gastric Dyspepsia. Sourness taking on the tongue, indigestible food, or substances which form idiosyncrasy disagree with the patient and perhaps the most frequent causes of the local irritation.
The chief symptoms of the disorder are pain and nausea, especially after taking food or during the process of digestion. The pain often but not invariably relieved by pressure; the restless state of the patient, his attention being almost constantly fixed on the uneasy sensations from which he is suffering.

In the milder form of the disease when the stomach is empty, the patient is tolerably well but when food is taken it gives rise to unpleasant sensations of different kinds—often a sense of constriction as if something was getting into the esophagus, which by forcing water, the patient tries to swallow, or to get rid of by hawking or coughing, or instead of this there is a feeling of cold, heat, itching, accompanied by general irritability.

With this form of the disorder there is often headache, the pain being confined to one spot. The pulse is generally small, beneath the system it is in a very unstable state when it is hurried or irregular; the heart is generally more or less functionally affected, there is palpitation with other uneasy sensations which are referred to that organ. The tongue is seldom found generally pale or rather dry, the bowels continue, urine paler, limp, thin, moist and soft, perspiration often sometimes breaking out from the unstable state of the system.

In the more severe forms of the disease, the pain is often very severe, intense, or exists almost constantly, the patient...
is always referring to the uneasy state of the stomach, his mind being wholly taken up by its thinking & fretting of its complaint; flatulence, palpitations & giddiness are often present & when absent are induced by very slight causes. The appetite is variable, bowels constant, urine pale-colored of high specific gravity, perspiration abundant. This disorder is far more common among women than men & especially attacks those afflicted with hysteria or hypochondriasis, it occurs in persons of from 16 to 50 years of age, by a nervous temperament & delicate constitution. The disorder is as I before said the effect of an unstable state of the body caused by anxiety, disappointment, & whatever depressed the mind aggravated by a sedentary life, living in towns in a moist & damp atmosphere, & by the state of the weather. Of the causes which act locally the principal is food of an indigestible nature, change from a good nutritious diet to a poor one, long fasts, sudden leaving off accustomed stimuli, the abuse of tea, Tobacco & the like; such are the most frequent agents in the production of this form of the disorder. And when this state has been once produced the slightest causes acting either locally or on the system at large will bring back the disorder.
Treatment - The first and most important part of the treatment is the regulation of the diet. In the first place, the diet should be in proportion to the digestive powers of the stomach; fast if the food be taken in a greater quantity than the stomach can convert into healthy chyme, it remains undigested and these keeps up the sensibility of the organ. Next as to the kind of food - this should be of the least irritating nature and should be neither entirely dry nor moist, but of a mixed character in small quantities often repeated rather than taking once that the stomach can easily digest. This form of dyspepsia is very great care ought to be taken in masticating the food and taking plenty of time to mix it thoroughly with the secretions of the mouth. Often when other means had failed to relieve the pain which accompanies which is the principal symptom of the disorder, care was even required by giving rest to the organ for some considerable time, taking the only diet being some non-irritating substance as might be taken in very small quantities at a time.

2nd Medicinal treatment - This before proceeding to the local treatment of the disorder, the bowels must be regulated, the mild purgatives ought here to be employed as they cause less irritation, while those which act violently tend to keep up the irritated state of the organ.
These purgatives may be advantageously combined with
a solution as Extract of Hyoscyamus, Opium in small
quantities. This having been accomplished, such
means are to be employed as act upon the surface of
the stomach diminishing their irritability. One of the
most powerful of these is Hydrocyanic acid and administered
in doses of one or two drops in some simple menstruous
or combined with Liqueur Petrolee or lime water, it may
also sometimes be advantageously combined with one
of the light bitter infusions as Chinchli Bismuth is
another remedy very much employed in this disorder
it is generally combined with the carbonate of soda
or with Muphis - Dr. James Johnston who wrote a
very valuable treatise on this disorder recommended
the nitrate of silver as an remedy given in doses
of half a grain a day twice a day gradually increasing
it to four grains per day. It may be given combined
with shrub of a laxative is required but if the
bowels require not assistance it may be given with
a little extract - This medicine however seems to
be more effective when chronic constipation exists
along with nervous irritability, the best results have
followed its use in these cases - besides these
means for diminishing irritability, Poulters
irritant to have often been seen to relieve the suffering
of the patient; also some plasters were applied for some considerable time. Then the irritable state of the stomach has been endured by these means a different line of treatment is to be adopted. It is the duty of the physician to remove the condition of the stomach, which gives rise to the disorder; this is effected by the use of remedial tonics. Great caution however must be exercised in administering them, on account of the variable sensibility of the stomach being vastly excited; if the tonic remedies employed, sulphate of permanganate or the preparations of iron have been found to be most effectual, then when no official preparation of iron can be taken by the patient, great benefit is derived from the use of chalybeate tonics, such as Lover's water. Advantages are also sometimes obtained from using stimulating drinks. But these must be employed with great caution. Exercise. This is to be introduced into a moderate patient, only fatigue is to be avoided. All sudden violent exercises—exercise of any kind as walking moderately upon even ground, exercise in sunshine, exposure in the open air is highly beneficial. As this disorder arises more frequently from mental exercises and other causes which act on the mind, it is quite evident that a
Most important step is to secure alcalination of the mind by throwing off whatever burdens or perplexes it. This may be done substituting other occupations of an amusing kind in place of those which had been annoying the patient. And if the cares of business cannot be wholly dismissed, at least after meals they should be abo
avoided. The most effectual means of securing alcalination of the mind is by travelling; this is highly recommended by Dr. Johnston who publishes his own experience on the subject of the benefit he derived from a tour on the Continent for the relief of this disorder. A sea voyage, a change of air, a visit to a watering place of antipathetic to the climate, such as Carlstadt,licity, are all important means for the relief of the insinuative gastric dyspepsia. The use of Baths an often of use, sponging with cold water, the use of a matraps in place of a feather bed & the avoidance of all stimulants of the nervous system. The temperature of the body is to be attended by ordering sufficiently warm clothing & living during the winter in a cool dry air where the patient can bear the exposure during the greater part of the day.
III Functional disorder of the stomach arising from irritation elsewhere. This class of functional disorder depends upon 1st. Organic disease of the organs. 2nd. Irritation caused & kept up by the presence of a foreign body. 3rd. Local irritation in some part of the body. This disorder is therefore not so much a disease of itself as the symptom of some other disease, but as the secondary affection is often more painful than the primary & as much as the irritation of the good does produce marked effects on the system more especially when it is the seat of other diseases, it becomes often the duty of the physician to alleviate this symptom. It may be here necessary to distinguish this class of disorder of the stomach from those treated of in the second division of the subject. In the second division of the subject I said that the disorder depended upon an irritable state of the constitutional system, which arises from very slight causes, pure or to an irritable state of the stomach & that the principal symptom was pain after taking food; in this class again the principal symptom is vomiting. This arises from an influence transmitted through the nerves from the seat of the disease & not from any constitutional disturbance as in this reflex visceral
influence not only gives rise to vomiting but also to
undue 
continuity secretion of gastric juice. When
the gastric juice is forced out when it is not required it gives rise to other symptoms of gastric disorder
bides computer viz pain & a sense of heat at the
stomach, loss of appetite, sour eructations etc.
This gastric disorder may be very well illustrated
by what one observe in a case of Pneumonia. In this disorder
the gastric disorder arises from this cause etc.
In the earliest stage of the disease one begins vomiting
from a severe fit of coughing, as in bronchitis cough, without
loss of appetite or loss with little or no pain at the
stomach; when brought on in this way, sedatives are
to be employed as Hydrocyanic acid & Morphia.
When it occurs later in the disease, the vomiting is
accompanied with severe eructations, loss of appetite
pain & tenderness of heat at the stomach. Here the gastric
disorder arises from the after nervous influence
causing an undue 
continuity secretion of gastric
juice. For relieving the disorder when it arises from
this cause, we administer Alkalies & Astringents.
This disorder is also a very common symptom
of disease of the Brain Inflammation of its membranes
sometime & his vomiting is one of the earliest
symptoms of the primary disease.
Combining is often very severe from the passage of a gall stone. Even after the stomach has been infused of its contents quantities of acid are brought up by repeated vomitings. Much relief is here obtained from weak alkaline drink.

This disorder occurs more frequently among women than men, especially in children of a nervous habit, when this begins to show itself in its different forms, especially in children when suffering from the irritation of teething. When this disorder continues for some length of time without alleviation of the symptoms, the stomach is apt to become inflamed and congested, this being in turn injure the mucous coat of the stomach.

Treatment - As I have mentioned above this disorder is not to much a disease in itself as the symptom of some other disease, consequently the symptom may be often relieved by applying appropriate remedies to the primary affection. If, for instance, vomiting depends upon inflammation of the membranes of the brain if suitable remedies be applied in time the inflammation subsides the vomiting will cease. But the symptom is often of itself very serious as its effects on the system soon reduce the patient's strength.
and increases the patients malady. The physician often does more good by relieving the symptoms, than by directing his remedies to the primary affection.

The remedies applied to relieve this gastric disorder are:

1. Sedatives.

2. Alkalies & Astringents.

Experience has taught us that hydrocyanic acid is the most effectual of this class of remedies; it is given in doses of four or five drops when alone in water or combined with small doses of morphine.

2. Alkalies & Astringents. When ptyalism exists in the stomach immediate relief is often obtained from the administration of an alkali. One of the insoluble alkalies as magnesia or lime answers best as it both neutralizes the ptyalism and acts slightly as an astringent through its saline properties. Though the benefit derived from astringents is not so speedy as that from alkalies it is of longer duration; this arises from their power of restraining continual secretion. One of the vegetable astringents as Potassium Chlorate may be used.

Alkalies should be taken two or three hours after meals as astringents half an hour before meals. Another remedy which is often used with the best results in this disorder is Bismuth; it acts principally in restraining muscular secretion and may be advantageously combined.
with an alkali as Br. aquatica or chalk. If the symptoms of an inflammatory state of the stomach are present, the sense of heat in the stomach, tenderness of the epigastrium, & a white coating on the tongue, mustard poultices are to be applied to the epigastrium. In this state relief is also obtained by swallowing occasionally a lump of ice. If the bowels are constipated, such remedies are to be given as do not irritate the stomach; as the Compound Colyram Ma. Pill. due to paid should be paid to the duty of the physician avoiding all alcoholic drinks & stimulating articles of food as they seldom fail to aggravate the disorder.

IV. Functional disorders from some fault in one of the secretory organs or in the processes of secondary assimilation.

In the first three divisions of my subject I have described functional disorders of the stomach arising from different states of the nervous system: 1st. from diminished sensibility; 2nd. from increased sensibility; 3rd. from an influence transmitted by the nerves to the stomach from some other part of the body in a state of disease. I now come to another class of functional disorders of the stomach viz. those arising from an improper state of the blood which generally depends upon defective action of one of the secreting organs or from some fault in the processes of secondary assimilation.
1st Of indigestion arising from defective action of one of the secretory organs. If the secretion of the liver be defective, from deficient a want of power in the organ or from a state of congestion arising from high living & indolent habits the functions of the stomach are generally disordered; the symptoms of this state are a coated tongue, unpai...
Carbonate of ammonia is derived from its decomposition; phosphates have been found in the compacted matters. In Bright's disease, disorder of the stomach is one of the most serious complications; as the blood in this disease is always impoverished, so there is a great drain on the system, it becomes the duty of the physician to remedied relieve the gastric disorder. 

Therapy supports the system, often indeed more relief is afforded to the patient by remediating the disorder of the stomach than by giving medicines which act on the kidneys. The prominent symptoms of the gastric disorder in Bright's disease are nausea, vomiting, these must alone or in combination along with other symptoms of gastric disorder, slow and perturb digestion, flatulence, weight at the epigastrium and acidity. The vomiting may be alleviated by Hydrochloric Acid in doses of four or five minims, and when acidity is present it may be combined with an alkali, as two drops of Liguor Potassii. Balsam has also been used with considerable advantage given in small doses in the form of a pill when these means fail the gastric disorder is often alleviated by purgatives given in the Morning, which, when given at that time, clear away the refuse of digestion & cause an elimination of noxious matters from the bowels.
I now come to that class of disorders depending on no visible change of structure but on some fault in the process of nutrition. This gives rise to an empyreu State of the blood from an excess of effete matter, the soluble parts of which being separated by the kidneys are detected in the urine. It was Dr. Potent who first detected the attention of the profession to this great class of disorders and to the condition of the urine which is present in these states.

1. Faulty assimilation. Firstly, in the formation of lithic acid in the urine. This often depends upon a peculiarity of the constitution in which was called by Dr. Potent lithic diathesis, which is permanent and is present in those afflicted with gout or in those who live an evil which predisposes them to that malady.

When lithic acid is formed in sufficient quantity in the urine either habitually, or frequently, the persons so afflicted are very subject to indigestion. The symptoms of this form of indigestion are principally acidity of the stomach, the peculiar condition of the urine, along with the tendency to the tongue cold. The Bowels constant. The treatment consists in regulating the Bowels.
The real object of all this is to correct constipation after digestion. The soluble alkaline is good also by promoting the function of some of the kidney & liver & should be given two or three hours after meals. But argueria are also to be strictly attended to. The diet should be simple, & the past-cook. The use of all alcoholic drinks should be strictly forbidden. Action in the open air is very beneficial, also walking after exercise. Whatever tends to keep the person in a healthy condition.

2. If the formation of uric acid in the urine. Dr. Priestley supposed that when uric acid was formed in considerable quantity in the urine it depended upon a peculiarity of the constitution of he called this supposed peculiarity the dratic, draticism. Uric acid which is a compound of carbon, oxygen & water exists in many plants & may be formed by the influence of oxidizing agents on sugar, oxid starch, & the like. As lately shown by others it may readily be formed from ethereal acid. How it is formed in the body is readily presented in the urine in several ways. 1st. Accidentally, when fermentation a酶d digestion & in whom inspiration is not active. 2nd. At choroid or the blue in which uric acid exists in considerable quantity, the
Malic acid is not decomposed in the process of digestion now by the influence of oxygen when passing through the lungs but passes off in the urine. It is formed in the body when not taken in the food. It may be formed from the saccharine elements of the food or from lactic acid and other substances that result from the waste of the fibres. Malic acid in the form of oxalate of lime is found in the urine in considerable quantity in several diseases, but what we have to do with here is malic acid occurring in the urine along with disordered digestion. In this form of indigestion the appetite is generally good. There is no pain after food, no heartburn nausea or vomiting, but a disagreeable feeling of flatulent distension of the stomach comes on two or three hours after meals. The constitution suffers considerably in this disorder. The patient loses weight, is weak and easily fatigued, sleep ill, has frequent palpitation of the heart, is depressed in spirits and very hypochondriacal. The patient has often an uneasy feeling across the loin and stomach. The bladder more frequently than in health. This probably results from irritation of the urinary organs caused by the presence of oxalate of lime. The skin is also very often in a very unhealthy condition. These symptoms cease in slight contact
cause little discomfort while in the snow pass across
cases they are very well marked. Some of these symptoms
are peculiar to the disorder but when several of
those exist together, the scene ought to be examined
which is the only sure evidence that tracheal or
tracheo in the sense. Dr. Poult says that the tracheal
acid condition is to be either hereditary or
induced by living in damp districts or habitual
exposure to an impure atmosphere, also
whenever tends to depress the vital powers of
the excessive use of saccharine matter for food
Treatments. Of all the remedies employed in
this disorder(Nite Phosphate acid is the most
efficacious) from ten to twenty of drachms of each
of these acids may be given in a glassful of
water about half an hour before breakfast or
dinner. This remedy was long ago known to
and used in functional gastric disorders but
it was Dr. Poult who showed that it forms in this
form of indigestion the greatest benefit to resulted
from its use. Some of the light bitter tonics may
be given along with the mineral acids, usually
one or two_contra indication, Dr.'s Poult or
Regimen are to
be attended to, especially all saccharine articles of food
are to be used sparingly as they excite some of those
among the exciting causes of this disorder.
Functional disorders of the stomach depending upon some peculiarity in their symptoms
Under this head I would include 1st. The disorder characterized by the formation of Sarcoina. 2nd. Pyrosis
3rd. Ulceria.

1st. The disorder in which Sarcoine is formed in the stomach seems to be produced primarily
from some constiction at the pyloric orifice which prevents the stomach from readily emptying itself. This causes the secretion from the stomach which is apt to erode in the stomach & in the matter vomited a fermentation process in which Carboxylic acid is evolved, Sarcoine produced & Acetic acid formed. The disorder as I before said is produced from some constriction at the pyloric orifice & this is usually caused by some unremovable organic changes, but how this constriction leads to this kind of fermentation in some cases & not in others is not known - the patients appetite is generally good, but if it is indulged in flatulence, attended by a sense of burning & great uneasiness in the epigastrium, these in slight cases subside after a few hours but in slighter cases severe cases the uneasiness increases till it is relieved by vomiting - the quantity of eroded matter
Vomits & when the stomach by concrecence of the disease, has become much enlarged, as much as two quarts an hour at a time. The Bowels are usually constipated, the sleep is disturbed by the distension & uneasiness at the stomach, there is loss of flesh & the patient looks as if he was labouring under some serious organic disease. The disease when it vomiting is present is rarely recognized by the matter fermenting after it is ejected from the stomach & by the presence of balsam. Treatment. This consists in giving medicines which tend to prevent fermentation process & in duly regulating the Bowels - one of the first & most effectual remedies employed for checking the fermentation process was beer to be given repeatedly in small doses, another remedy was common salt in large quantities, this also afforded much relief to the patient. But Dr. Jenner proposed a new remedy, the sulphate of soda which is as yet the most effectual remedy we know. It owes its virtues to the fact that any vegetable acid decomposes it setting free sulphurous acid which has great power in preventing Alcoholic & Acetic fermentations - the Bowels are to be regulated by the use of aperients, the colchicum will answer.
They call it most cases: opium is often of use
when the pain is great & the sleep disturbed—
2º Opium or Water Mastic. The distinguishing
features of this disorder are fits of heartburn followed
by the ejection of a colorless liquid like water.
This results from various causes, such as iritation
in the stomach itself, organic disease of the stomach;
but I would speak of it here as it occurs among
the poor in the northern countries, especially Scotland.
Where it seems to depend upon an unwholesome
diet, the food not being sufficiently varied but
consisting too exclusively of farinaceous food.
The fluid ejected is generally alkaline, it then
looks very like water which is probably its chief
constituent & when the matter vomited is sour it
contains some of the acids secreted by the stomach.
The disorder is more common among women than
men & in grown up persons than in children.
The season of the year seems to have some effect on the
disease as it is less frequent in summer than in
winter or spring. As I before said the disease
depends upon the diet consisting too exclusively
of farinaceous substances & as the disease
chiefly prevails in northern countries where
Alcoholic spirits are used in excess. Most authors
have acquired it as their opinion that a frequent drinking
of water brings on this disorder—
Exposure to cold is also a very frequent cause,
we see this from what I have before stated, that the
disease occurs more frequently in winter & spring
than in summer. Insipid labours, want of clothing
and of blood, all aspects producing this disease.

Treatment. The first step is to remove the condition
on which the disease depends—If it is caused by an
unwholesome diet, medicine can do no good.
All the diet is changed to a good nutritious diet
substituted for that on which the patient had
been living on. If it depends upon other causes
as insipid labour, want of clothing &c. the patient
must have rest & be warmly clothed, if it depends
on constipation, the bowels must be regulated by
purges. The medicines employed in this
disorder are Cidaburum & Arseniurum, and these
inoculations of remedies may be advantageously
combined. For instance the murratt of mephan
may be given along with Barmuth, or with one
of the vegetable arseniurum as Phosphorus or
Other medicines have been recommended in
this disorder. &c. The mineral acids are still when
the patient is in an acute state, quinine
Retrace of colour & fever common is said to be rare by
the inhabitants of Lapland among whom this disorder
is very common.

Utheria or Pimple rash - This may be produced in
various ways, but the most frequent cause is the
imperfect digestion of particular articles of food
this recurring in persons in whose digestion is quite
healthy. When it arises from this cause the eruption
generally breaks out in a little more than an hour
after the corresponding indigestible substance has
been taken - Along with the eruption we have occasion
a sense of constriction at the chest, asthyma, engorgement
of the head, flushing of the face & this is sometimes
followed by pain in the bowels & diarrhoea. The
treatment consists in emptying the stomach by an
enema & then clearing the bowels by means of a
perjury. Under this eruption food disappears
some persons have repeated attacks of utheria
from bowings of digestion & inability to digest
particular articles of food which thus readily
object. The eruption is not extensive but recurs
frequently generally after every heavy meal.
In such cares the disorder may often be prevented
by taking a pill containing three or four grains
of saltpetre & half a grain of utheria, but as
This pastime disorder depends upon the patient's diet; he should be very careful in also selecting proper articles of food, avoiding all those which have at any time previously induced an attack of the disorder. At the same time exercise and such other means which tend to strengthen the powers of the stomach are to be prescribed.

John Cruickshank.