On Functional Disorders of the Stomach

by

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such as Errors of Diet, Sedentary Life &c.

The general symptoms of dyspepsia are loss of appetite, a sense of weight, oppression, or distention in the epigastrium some time after food; various disorders of the stomach, from a slight uneasiness to a sense of burning pain; irritations giving rise to nausea, vomiting, and general restlessness and anxiety. There is flatulent acidity, and irritations of an oily or offensive nature; general languor, desire of sweets or insatiable hunger; cold and either irritable, languid, or deranged; tongue sore or lip furled; jowl fat, &c. Swelling of the capillaries languid; bowels constipated, and various sympathetic affections, especially of the head and of the nervous system; may be present. But the form in which the symptoms group themselves varies greatly according to the habit of body, to Constitution of the individual, or to the different pathological conditions of the stomach, or the duration of the disease, and its combination with other diseases, either of the Constitution, or secondary effects developed during its course. Three classes of people may be mentioned as exhibiting some variation of symptoms: one characterized by acidity, another by flatulence, and a third by predominance of viscous
symptoms. The first are dyspeptic such as seen in the dispensaries. These form a large class in every large town. As they are acute, they present the following characters. There is loss of appetite, and little relish for food; when food is taken it seldom produces vomiting, but his bowels are affected in the stomach, and there is seldom any actual pain there. There is acidity in the stomach. The tongue is pale, slightly greasy, but moist, or covered with some mucous. They complain of a bad taste of the mouth in the morning, lack of appetite and hunger; general debility is languid, and listless, and the mind appears dull and depressed. There is often giddiness of the head, and a sense of fainting on rising from a stooping posture. The muscles are flabby; the skin is a dull dingy hue, though it is dry, yet it easily perceives on the slightest exertion. Surface of the body cold especially the extremities. These persons also frequent the dispensaries for asthma, bronchitis, laryngismus, at the sides of the chest, rheumatism, and other uterine disorders. They are perfect specimens of dyspepsia athecia, and differ from the common simple dyspepsia from continued errors of diet and idleness.
life, as the weak man does from the individual core.

The cause of this is plain. Part of this may be from
the foul air, bad intakes, depending circumst
ences on the mind, and the want of means to
exist the inclemencies of the weather. But this is
chiefly owing to deficient nourishment—want of
blood sufficient in quantity, or rich in quality, for
the perfect formation of genuine juice, and the perfect
nutrition of the stomach and system in general.

The permanent cure of such dyspepsia must be left
to physicians. In the dietary we give them the veget
able bitters, as quassia, gentian, columba, or along
with the mineral acids; and sometimes the
chalybeate.

In another class the dyspeptic symptoms are modified
by a plethora, brisk of body, the opposite of the preced
ing from excessive indulgence of the pleasures of
the table, such as an easy gullet, and gouty persons
they have impaired appetite, facility of heartburn,
headache, disturbance, and other signs of dyspepsia.
But they are often thirsty; their urine is high colored
and deposits lithates in abundance. Their heads
are thin, plethora; atrophy, a sense of falling and
shrinkage over, or between the eyebrows, or pain a
dull pain there. Their general appearance are heavy and dull. With all these complaints, complaints of indigestion and acidity in the stomach, they do not lose flesh, but preserve their color. The surface is not cold, every thing within hot and itching. This feels as if a Bowel Constipation. Such persons will cure alkaline and purgation largely to obviate the immediate evils after escapes them willing to give up their bad habits. To cure such aplevisia, the patient has only to moderate his quantity of wine and animal food. But though this rule here, as aplevisia from the cause, namely, cure is not easy, because bad habits are difficult to be broken.

Another class differing from either of the preceding is characterized by the predominance of nervous symptoms. They form a very large class of aplevisia also, especially among the higher classes, I am speaking kinds. First, there is the true hypochondria, who from some attack of indigestion imagines serious disorders of the stomach and begins to regulate his diet, watches attentively his various symptoms and sensations, and interprets them in his own ways anticipates all kinds of evils; seeks medical advice, employs Consults various physicians, or some quacks, and thus originates their aplevisia. Another one...
The real dyspepsia, but what from peculiar irritability of the nervous system (either original from delicate organization, or acquired by long irritation of the system, especially from disorders of the internal functions,) depends less readily on the irritations of the stomach, and exaggerates its evils. During digestion, such patients have great uneasiness, anxiety, restlessness, or burning pains in the back, or between the shoulders. They are liable to sympathetic affections of the chest, to hiccough, noises in the ears, flashes of light or black spots before their eyes; various nervous sensations from the thyroid to the stomach, seldom frequent muscular twitches of the face and hands; numb or stinging sensations in the arms, or a sensation of the skin, neuralgic affections.

Symptoms also vary according to the condition of the mucous membrane—the degree of gastric irritability, vascular irritation, or atony, simple or complicated, with various related sensations. Irritability of the stomach is like irritability of the bladder, characterized in the one by frequent urination, and in the other, vomiting. Food taken may be immediately vomiting up, or not till a certain time when irritation has reached its height; or food may be suffered to be digested, but rapidly prepared.
ill digested into the duodenum. At least this is the 
common opinion. Dr Bennet Jones believes that 
irritability of the gastric nerves should cause an 
increased secretion of gastric juice, as irritability 
of the conjunctiva produces abdomen of tears, which, 
if true, would lead us to conclude that in such cases 
digested is rapidly digested. This condition of the 
stomach is characterized by pain in the epigastrum, 
general lassitude, & great watchfulness. 

The appetite is often good, but Capricious. Gastric 
irritability is often symptomatic of diseases elsewhere 
than the stomach, (as the ures, kidney, pancreas, 
brain, 

Inflammatory conditions of the stomach are exceeding 
by some. Where congestion of the mucous membrane 
has been called inflammatory affection. But we 
cannot any more call the hot, dry, skin, or fever, 
so small fire, or any disease attended with febrile 
disturbance, inflammatory than we can the dry or 
congested state of the stomach. At least I believe 
that conditions are not properly 
dyspeptic. But then is one, the "Dyspepsia dyspeptic 
" which in the most cases can hardly be named 
chronic gastritis. An aggravated form of this affection.
has been directly observed by Dr. Brunton in the mucous membrane of the stomach, after he had been drinking very strong spirits. Very few for eight or ten days. Ordinarily the symptoms are a loaded or white tongue, red in the tip and edges; a sense of uneasiness or heat at the suprastomach; sometimes redness of the fauces; thirst; high colored urine; taste of bile; looseness of spirits; dry retching in the morning; food taken is either irreversibly vomited up; except the blandest kind) digested in the stool or increasing. This may be known from Common Dyspepsia, by the history of the case, by the uneasiness being disagreeably aggravated by any hot or stimulating food or drink, which are often grateful to the dyspeptic. Pain in the epigastrium increased by pressure has been thought to be a decisive mark of by Dr. Phillips but denied by others. All depends the meaning we attach to the term pain and the collateral symptoms that strengthen the conviction of either party. Treatment is total abstinence of possible or blood purgative food of Esquiriel.

On the different varieties of Dyspepsia. To make a satisfactory classification of the different varieties.
of dyspepsia is very difficult, because writers are not agreed as to the exact meaning of the term; and dyspepsia, being often conjoined with other disorders, of which it may be either a symptom, or only a coincident disease from a common cause, while it alone is regarded as the primary or principle disease. Formerly there seem to have been as many varieties as there were diseases of which it is in present. For we find such as the following: Dyspepsia Agitataria, Dyspepsia Arthritica, D. Fissurativa, D. Scrophulous, Accumb. Pitiatica, A. Splanchnica, A. Exhaustiva. Most dyspepsia from uterine disorders, catarrhal dyspepsia, etc. It has been decided according to symptoms, as melombs, maior dyspepsia; to the rest, as gastric & intestinal dyspepsia; according to the constitution, in more recent times, as "Hummus dyspepsia, "gastric cholera", "acorn sickness", etc. Of these, incontestable, Dr. J. Todd of London, in a learned article in "Medical & Physical Medicine," endeavors to give that he calls "natural classification," according to the seat & main condition of the disease in the alimentary canal. There are:

- Acute
- Chronic
- Dyspepsia irritable
- Dyspepsia follicular
Clinic \[ Asthenic \quad Hypasthenic \quad Atrophie \quad Endopathic \]

Pelvic \[ Inflammatory \quad Hypasthenic \quad Polyasthenic \quad Reparative \]

By "Endopathic" is meant "The Same Morbid Condition Obtaining Throughout the Whole Alimentary Canal," and by "polyasthenic" the "Different Morbid Conditions Existing in different parts of the alimentary Canal." The above varieties are called by him "Dyspeptic" "Dyspepsia of the stomach or symptomistic" and "Dyspepsia duodenal peritoneal enteric" "Duodenal or painful digestion," so that according to his classification, diarrhoea, &c., are varieties of Dyspepsia. The necessity for the division of Dyspepsia into many varieties is now furnished by the separate discussion of many diseases, of which Dyspepsia is only a symptom. Even Todd "Inflammatory and Intestinal Gastric Dyspepsia" may be regarded as too general, as including in the former every condition of the stomach, that portent of visceral excitement, and in the latter, every nervous manifestation connected with stomatch affections. With regard to the functional disorders of the duodenum, they are seldom the objects of study, whether it be from the difficulty of diagnosis, or from its treatment not being materially
Abroad from that of the stomach. Without attempt to describe any variety of dyspepsia, we may proceed to consider some of the symptoms of simple dyspepsia. A sense of weight and distention some time after food. This may come on in the course of half an hour to two hours after food. It is by far the most common symptom of dyspepsia. The pains referred to the heart, certainly do not happen very often in pure dyspepsia, which is also described as painful digestion, but they occur extremely in the chronic gastritis, in heartburn, in ulcer of the stomach, or some similar invasions of the stomach. The other symptoms that accompany this sensation are a general sense of a nervous, mental dyspepsia—a feeling of something in the system that lingers away the elasticity of the spirits, or weighs it down—an indolent state of mind, and heaviness. The patient lags aside his business, laggily, sometimes impatiently, waits for his hour of deliverance, thinking that then he will begin to work. To relieve this uncomfortable state, he will either work over his stomach, or decline to sleep, or amuse himself with one book and then another, but could fix his attention on none. Perhaps a gentle walk, and on
Animated conversation with friends is better. This sensation often happens to people of good health, of unusually fatigued, or after great perspiration; it also in old people, and those of the phlegmatic constitution. But in dyspepsia, it is almost always habitual, and perhaps the frequent habitual occurrence of this symptom alone will constitute dyspepsia. Generally it is followed soon by flatulence, acidity. As to the nature of this symptom, it cannot be owing to the weight of the food upon the stomach; because in health, a larger quantity of food is taken yet this is not present. It must be partly owing to the muscular coat not contracting upon the food, just as the arm feels even a small weight heavy, if it is weak or tired. Hence this symptom occurs in fatigue and debility. Perhaps it is also caused by a deficiency of gastric juice "acting upon the mops, so that it is like a foreign body in the stomach. For flatulence and acid excitations counterbalance a sense of weight; whereas also precede cost of blood, because it is not digested or absorbed. So also liquid taken if not readily absorbed will give rise to the same sense of weight. At any rate, this symptom shows that the forces of...
Digestion is going on very slowly near by at a stand. The sense of distention may be real from the disengagement of gas, or swelling of the food by the heat and moisture, and the dulledsted, yielding before it; but is often a mere sensation. Rectum. The food should not be of a large quantity, but such as the stomach can easily digest in a short time. Take no food in a state of fatigue, & make no exertions afterward bodily or mental. Take some gentle exercise when this sensation comes on. Sometimes a cup of tea or coffee will revive the energy of the stomach. But the constant resort to such stimulants only permanently weaken it.

Flatulence of the stomach and intestines.

Flatulence occurs generally at the end of every meal, when sour emetations, and other signs of the composition of food are present. But it may occur when the stomach is empty, or when there is considerable constipation, in which gas may be in the intestines also. When liquid, especially warm tea or coffee, has been taken in excess. It occurs in the sudden distention of the stomach in hysterical females, in the typhus and in the typhoid stage of fever, and in other diseases. Flatulent distention is a source of much suffering to the dyspeptic. There is often a flagging of the most mental faculties.
A kind of flatness of the spirits, sometimes distress of
swellings of the stomach, sometimes though rarely, violent pain
from it. That this swelling may be from
inflammation of the stomach from other causes is
probable. But the prompt relief, in the restoration of
the spirits, & the clearance of mind, after the wind
is ejected, contrary to the present conjecture, helps
also, to indicate clearly, that the gas is
the cause, though gas itself have nothing intresting.
Cause, or some of this gas. The cause of
the hypomenis in furn is from the congestion of the
intestines, according to Dr. Graves. He says that
it is preceded by a diorsick, and relieved by castor
oil. Perhaps the deility of the intestinal coats,
aggravated by the diorhea, is the common cause
of both the congestion and this gas. He also
believes that flatulent distention may be from
the exaggeration of what is a natural process in the
intestines, the secretion of gas — a "supersaccent"
he calls it. That gas may be secreted by the
membranes of the mucous membrane is believed by many physiologists.
It is difficult to explain this occurrence, between
distention of the skin, itself, or other parts of the
intestines. Causes, when it happens in an Eating
stomach. It may be exerted, or from the composition of the
remains of food, in an apparently empty stomach, or
perhaps, in some of its motions. It may be a mere sensa-
tion, or it may be introduced from without. Feeding
or sensation of wind in the morning, often, and is
relieved by food. Of this, I have been told by people
living in good health, and have felt it myself. May
not this be the result of the previous suffer? That
relief is given by the stimulus of food, even without
any ingestion of gas, shows it to be only that uneasy
condition of empty parts of the stomach, so common in
hypochondria. When one has been often attacked with
flatulence, he is easily induced to believe this condition
in his stomach by anything simulating it. Nor
instead of taking food to relieve it, if he has only to
wait perhaps an hour, when he became full, gone
without being relived, or the stomach, then really
the empty and contracted. Practically in hypochondria,
two causes may be admitted. The first, the source
of the gas, is the decomposition of the ingesta and perhaps
the secretion of the alimentary canal. The second
a condition favoring its occurrence, is ability or
inability of the muscular coats of the stomach, intesti-
also allowing its accumulation and distention, or
the accumulation of excitments, matter to obstruct its exit through the natural passage. It is possible that sometimes gas may be secreted, as it occurs in empty stomachs, and seems to be sometimes favored by peculiar condition of the nervous system, or hysteric, hypochondriacal, &c. Yet it looks almost incredible, in those cases of sudden distention of the stomach, in hysteric females, to suppose gas could be generated by a natural process, quickly. May it not possibly sometimes from the stomach, getting into a condition similar to that of the bladder, — a temporary paralyzis of its coats, than there is succeeded a sensation of the presence of gas, as often happens in empty, atrophied condition. If gas be found present may it not be expelled from the patient's attempt to relieve the sensation, by first giving the diaphanos, and then vomiting, the gas; but in taking the full inspiration, the instinctively swallow the gas. This happens often to the dyspeptic, when perceiving gas in the stomach, expel it perhaps by pressing his hand upon the abdomen, or leaning forward. But as soon, has he left the hands than it appears refilled. He expects his efforts of vomiting, would still some gas
Every time, and as the gas appears to be generated exceedingly rapid, Dr. Paré bled such patients, preventing themselves by swallowing the gas, and then expelled it. This is true. But the cause is from the sensation being still left behind, even after the gas is ejected. This sensation is not felt when the stomach is firmly compacted, by the hand, or by a finger inclining the abdomen, or when that organ is contracted by its own tonicity. Ordinarily the stomach when empty is contracted so as to admit of little air. It would be interesting to inquire if in some cases of its sudden dilatation there may not be formed a kind of vacuum, (through some temporal influence of the nervous system, causing a sort of paralyses or some flaccid condition of the stomach,) which is immediately filled by gas rushing up, from the intestines, or down from the mouth.

Treatment of Flatulence. First avoid flatulent food & drinks, as eggs, cottage, & other indigestible vegetables, tea & coffee, wine &c., & fermenting liquors. As a general thing all articles of food that cannot be easily digested in a short time, are fermentable or easily decomposed, maybe considered flatulent. One writer advised the use of coffee alleviates flatulent than tea, but this is
not the experience of others. Probably what agrees best with one stomach is the least flatulent. Freely, take exercise, which is often expelled by a long and vigorous walk. Exercise promotes intestinal action, by a general stimulus to all the functions of secretion and evacuation, and when intestinal action is vigorous, both constipation and flatulence are obviated; in whatever is foreign to the economy is secreted. For gas is also an excretion, entering largely in the passages, not so much as an effect of constitution, but as one of the conditions of toxi-city. If the function of evacuation of the intestines, of the other organs, exercise have sometimes been found more effectual than even the Emetic of Cordaro in other hot Carminatives, especially when the latter have been too often resorted to for relief. If the case is not urgent, the patient able to walk, walking is preferable to medicine, as it seldom fails to give relief; if it fails, a slight stimulus, as taking some tea or food, will be more effectual than after exercise, than a large quantity of Carminatives before it. Besides that temporal relief procured at the expense of future disadvantage. Flatulence of the stomach, empty or not, seldom exists but there is present toxi-city of the evacuated function.

A third means of palliation is giving support to
to the stomach by a bandage round the abdomen, which also prevents accumulation. Patients will sometimes invol-
untarily accumulate the messure to obtain relief, as people do in
colic. But if distention is considerable, such action, even
is admirable, as preparation would give pain.

Medical Treatment. The most commonly used, carmin-
atives are, the Compound Tincture of Cardamoms, the
preparations of Peppermint, Cinnamon, Ginger, Caraway
seeds in the form of Fabio Aromaticus, and much and
Ginger tea is a domestic medicine. Other stimulants
are also used, as oil of Peppermint, & Assafetida, in the
form of injections. Few carminatives are equal to the
Enema Gastrica. In cases of urgency, friction, stimulatory
liments, over the abdomen, &. galvanism, have been
recently started. Also the introduction of bougies into the
colon by this section. But such means are not necessary
in dyspepsia.

Vomiting in Dyspepsia.
Vomiting is from irritability of the gastric nerves, exciting
the stomach & the esophagus muscles to contraction. That
irritation of the mucous membrane is the immediate cause
may be inferred from the fact, that Emetics are generally
instantaneous. Vomiting is generally accompanied by pain
nausea, and general uneasiness in the region of the
of the stomach. It may occur immediately after introduction of food, or not some time, perhaps two or three hours after it, or when the stomach is empty. It is especially in the morning. With regard to its frequency in dyspepsia, vomiting strictly called, is not very common, although acid, oily, or offensive, eruptions, or severe gelatinous of food, are common enough. Actions generally known vomiting as a common symptom of dyspepsia; but it for often happens in acute dyspepsia, commonly called a fit of indigestion. In the chronic form of the stomach, it is more habitual to irsotions. There are many causes of vomiting besides irsotion of the ingesta, or the product of its decomposition, many of which are not obvious from the absence of local injuries, the presence of dyspeptic symptoms. The presence of bile, or acid eruptions in the stomach, especially the former, will cause vomiting. But they cannot be easily diagnosed before they are ejected, nor are they sometimes even suspected. Vomiting may be from want of cerebro energy. It is easily produced by deficiency of sleep, fatigue, exhaustion, or depressing emotions, especially irritable habits; nervous females. I have observed on one occasion that the deprivation of a few night sleep,
As consequence of an earache, was followed, one morning, on rising, by vomiting, a great disposition to it throughout the whole day, especially on entering a close room, somewhat like sea sickness. Hence we may suppose why vomiting happens more frequently among females who have headache, giddiness, noises in the ear, sickness before their eyes. Such persons find great difficulty to procure sleep; & in such cases, perhaps a good night's rest is as good as any medicine given to the stomach.

In the dreams of dyspepsia, the vomiting may be also partly owing to nervous exhaustion, as well as the enanthematic condition of the stomach. If the mind be the cause, vomiting may be produced by the power of the will, or by withdrawing the morbid attention of the hypochondria. In the case of females, birents cerebral influence, vomiting may originate from, or aggravated by, spinal, or uterine irritation. Among such cases, the leading symptom may be from the frequence of vomiting, by which the stomach become too relaxed, (otherwise too) that even a slight irritation, or a slight excitement of the emotions, will it bring it on. But such vomitings are seldom severe, & rather resemble deglutitations. It is clear then, that we cannot always, in depression, estimate the degree of sufferings.
of the stomach, by the hardness or frequency of vomiting; also that vomiting may be cured by strengthening
the mind of the patient as well as the stomach. But
unfortunately, division of heart, vigor of mind, and
considerations of sin and sinners, are not found
among such classes of people. Vomiting also may
be caused by disease of organs over the stomach, as
for instance the pancreas, that the local injury could
be detected as to lead us to regard this disease
as only symptomatic. Vomiting is also supposed to be
dependent on caused by an anemic condition of the
stomach, as well as congestion, as may be induced
in the sickly or weak consequent on hemorrhage
or affection. But it is not easy to estimate how much
in such cases it is due to central influence. For
vomiting in many cases may be arrested by
drinking ice-water, which certainly would drive the
blood from the capillaries. Vomiting happens in the
first stage of many diseases in which the involuntary
actions are not controlled by the brain.
Vomiting is seldom in hypothermia alone, and
its occurrence is always suspicious, especially if the
diet has been freely regulated, in quantity or quality.
Yet there are recorded many cases of such sort, with-
Malignant diseases, for accountable otherwise. Incipient Cancer must be difficult to be diagnosed, unless there be Cancer in the liver or some other organ, present. But generally dyspepsia may be totally accounted for by the history of the habits, diet of the patient, and most of its evils may be obviated by attention to all these conditions of promoting digestion & exercise.

In simple ulcer of the stomach, there is pain at a certain season, a pain in the same region spontaneously, or when the stomach is empty, not relieved by food, a pain in dyspepsia, sometimes blood may be mixed in the vomiting. This is said to occur most frequently in females, especially female servants.

Treatment. Vomiting depends on many causes, treatment must be very various. Some of these causes have been mentioned. Treatment consisting of avoiding them need not be mentioned. If vomiting comes on when the stomach is empty, it generally depends on bile, or some acid or even vomiting (especially if preceded by great uneasiness, sourness of spirit, or headache,) should be encouraged by drinking large helpings of water, etc. If these fail, fever may be given. But if a small quantity of the latter yields, ice acid instead of being bitter, or nearly tasteless,
such as Carbonate of Potash or Soda, or Magnesia, or
concocting an alkali as soda water, may be used.
Carbonic acid is said to be a powerful irritant.
Sometimes alkalis if taken in excess will only
promote vomiting, & the mixture may then be half
acid & half alkaline, or mixed with bile. I
know of one who use alkali as emetic sometimes.
The drugs most generally used for inebriety of the
mouth membranes are Opium, Hydrocyanic acid, &c.
(with flags Potassa or some antacids) medical
hispanitas with Tar of Cordomans, Creosote, Bismuth,
Lecithin or the Sepiaeum and biotis, are resorted
to & advised in vomiting from chronic or acute
inflammation of the stomach to which it is supposed
long dyspepsia may lead. But the best preventative
for vomiting is the use of bland food, small in quantity,
& if necessary frequently repeated. Bland in dyspepsia
some kind of food will not be found that will
agree with the patient. Also rectify the habits of
secretion & excretion, & correct that irritable habit
of body too susceptible to sympathetic irritation by
tone or sympathetics.

Pains in the Region of the Stomach
Pain is a term often employed by writers on dyspepsia.
But in some respects it is a vague one, when not qualified, for it varies greatly in character, degree of intensity, persistence.

Since this sensation is also called pain, its character as given by the patient is liable to some fallacy from the sensation being only known to him, in such region as the stomach, the means of verifying his assertions are few. Patients vary in their susceptibility to irritations; one will exaggerate, and another understate his real state, perhaps unconsciously. Patients often answer only yes or no without being very exact in questions about the presence of pain, the ideas drawn from which may be wrong if not corrected by further inquiry. The phrases they employ do not always express the sensation they feel.

To obviate this it must be to presume on pain alone, the presence of inflammation in the stomach; or because pain happens in the region of the stomach that the stomach is the seat. Dr. Chartrouq has enumerated four different forms of pain: first, pain occurring when the stomach is empty, is thus relieved by taking food. This probably depends upon some degree of acrimony of the fluid of the stomach itself; and is generally relieved by absorbents, and alkaline remedies. Such pains are often observed but what are the fluids that can thus be relieved by taking food: gastric juice?
such as hydrochloric, acetic, lactie, or phosphoric acids? Some deny that gastric juice can be produced except by the direct contact of food or other substances on the mucous membrane of the stomach. If the lactie, acetic, or other acids can only be the products of decomposition according to the Plaut, acids of some kind or other must exist in an empty stomach. Sometimes, the stomach would not occur unless it were be relieved by "alkaline remedies." I have seen several times causing a new acid fluids like mucous secreted from the stomach, which I have been effectively relieved by swallowing a raw egg, or a piece of cold beef, when alkaline carbonates failed. Such fluids are gastric juice cannot be affirmed, since all acids are capable of digesting food. Even supposing they cannot act if the contained pepsin (which thing is) yet the latter food was swallowed, pepsin furnished, or consequence.

It is possible to suppose that gastric juice may be secreted otherwise than from direct contact of food on the mucous membrane, by irritations elsewhere. Because all glands may be thus influenced, because to secretions during digestion may be extended, or suspended by irritations on any part of the system. Besides the

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The stomach is empty, & its changed appearance, are said to be due to the gastric juice. But even in an apparently empty stomach, there may be some remains of food or indigestible matter (which happens often in real stomach), which may elicit gastric juice by irritation, to be decomposed into acids, without producing any sym pathetic irritation elsewhere, though this is not impossible. It must be remarked that, though pain may be from acid or acid fluids, yet these may often be present without giving rise to any actual pain indicating the seat of irritation. The patient feels uncomfortable, uneasy, or dole languid, may be disposed to accuse the indigestion of his dinner or his mental excitation as the proximate cause of his general discomfort, & he may feel himself long before his dulness, the local cause. It is not till part of the acid fluids are rejected that he become aware of their presence. The existence of bile in the stomach will give rise to general sympathetic irritation, without any local manifestation. The acids from which it is not easily distinguished, except sometimes the spirits are unusually low in their portent of more colic, & that there is great nausea. After much misery, the first thing that suggests itself is the origin of the evil. I may cite the authority of Dr. James Johnston on this point, who says:—This effect,
Acute pain in the region of the stomach is felt for
life commonly than the opposite. In the whole acme
page it appears that it these parts approaching the skin,
the Buckley that are most sensible. In heartburn the
questions in the esophagus stomach are more intense
and persistent than that of the stomach. Treatment of a
discomfort feels much general annoyance, for which he
can give no cause, he should direct his attention to the
stomach. If there be suspicion of irritation there, drink
some lukewarm water, make efforts to vomit, or take
some alkali or soda water. If there be acid the alkali
will neutralize it. If bile, it will promote its secretion;
for both the alkali and alkali are intolerable to the means
membrane. Animal food is sometimes useful in
Case of acidity. But for serious food, especially new bread
vegetables, fruit, jelly, sweet articles, rice, milk, sugar,
should be avoided. If there be much heartburn, bitter
bread is an excellent article, whether it be owing to
the moisture by-driven off making the bread stale, or
to the antacid power of this charcoal, acne water
supplies. Food may possibly act also as a simple
inhalant to an acid stomach as blood injections to the
bladder. Strains may relieve by simple dilution of the
acid fluids. But pain in an empty stomach may
be from nausea, according to Dr. Todd. Pemberton calls this
mucus irritation. "Pain of the stomach, most felt when the
stomach is empty." All writers agree that nausea is greatest
accompanied in an empty state of the stomach. Dr. Todd
gives the following character of what he calls "Colic of
Gastric Hypertonia." "Pain, cramps, constricting sense of
weight or other uneasiness of the stomach, chiefly felt in the
morning, or when the stomach is empty, frequently follow-
ed by vomiting of an insipid, peculiar subphlegm fluid."
The pain from nausea does not appear to be peculiar,
except that it is rather obscure, it may not be resisted
if small in quantity, till an emetic be given. One writer
describing it under the name gastrodynia, in the Cyclo-
pic Atlas of Practical Medicine says that this irritation gives
rise to hiccups, that the pain sometimes lasts by day
and night, with some intermissions; that it is not relieved
completely by antispasmodics opiate, which has only a
temporary effect, only relieves succeeding hiccups, that this "gastric
yugo" was very prevalent among the poor, he practiced
caused by facility of diet, or the use of stimulants, principally
the former. This is a constant use of vegetable food. This
causes that it is not owing to chronic gastritis, as some
believe, although such a condition brought on by drinking,
must favor its production. The cause given by Dr. Todd
seen only to show a relaxed condition of the mucous membrane. Thus predisposing Causes are "a phlegmatic temperament", "the decline of life", that period after forty,

change, climate, matter or seasons; the manner in which the disease of body and mind, sedentary habits, or the exciting Causes, eatables, improper food. I think I have seen this in a small degree, brought on by sudden change of weather, from a cold to warm; sent one after the snow melts in the winter morning. In dyspepsia, rapid accumulation of mucus is not a common cause of pain in an empty state of the stomach, except when long continued, yet may then be regarded as a secondary affection.

But there are cases most inexplicable related by Dr. Beattie in the Medical Times, of violent perperunal pains that instantly occur when the stomach is empty, instantly relieved by taking food: in people of otherwise good health. Two cases are given, one of which is as given by the Medical Attendant in an

Follows. About three hours after each meal, or perhaps about four or five hours are come to the mark, and as soon as digestion appears to be over, he is seized all at once with severe pain in the stomach, which soon becomes so intense as to depress the circulation in a very remark-
way. The pulse falls to 35 in a minute; he becomes deadly pale; his hands get grow cold; all the strength appears to have left him. The state of things continues until he gets something to take in. But the very moment he swallows anything of what is remarkable is that the effect seem to be quite independent of the nature of the aliment, he gets complete relief until the period comes round when the stomach is again empty. In the absence of food, the pain is much assuaged by his assuming the recumbent posture. The patient was a medical man between 35 to 40 years of age, and the fits were said to be brought on by overfatigue. It is not impossible that some of these pains in diges-

ion which are relieved by food may be of a similar nature though of a minor degree. For the state of their stomach, a nervous system renders them liable to motions, which occur so often in empty stomachs. It would be difficult sometimes to say precisely from what cause the pain comes, since the stomach, besides being an organ related by sensoric sympathies, is one composed of several structures each of which is liable to be attacked with pains peculiar to itself. There are other common sensations (not pains) given by writers which happen in empty stomachs. There are a sense of sinking, spluttering, growling, gridding, or dragging sensations, sense of itching,
tickling, formication; cold or heat amounting sometimes to "burning". These are often relieved by food, and for more Common among irritable persons, in which case there are present other nervous symptoms.

Dr. Anderson's second form of pain is Pain occurring immediately after taking food and continuing either during the whole process of digestion or till the stomach is cleared by vomiting. This is probably connected with chronic inflammation, or increased irritability of the mucous membrane of the stomach. "The treatment adopted is to restrict the diet entirely to rice, arrowroot, or brood milk, with total abstinence from all stimulating liquor. This principle of treatment was remarkably exemplified in the case of a boy treated by Dr. Hunter. It is necessary to distinguish irritation from chronic inflammation, and mobid sensibility of the stomach. The two affections are like Catarch of the Bladder and Brittle bladder. In chronic inflammation of the stomach the pain at the epigastrium is increased by pressure, or more acute. In irritability alone, it is relieved by pressure. In the former the tongue is green or unmistakably blue, appetite impaired, urine high colored. In the latter the tongue is generally clean, appetite variable, "seldom, impaired." This is general
constitutional irritability of which the stomach is only a local manifestation, or some local irritation as changes of the genito-urinary functions, or some nervous affection. In pure morbid irritability also there is an entire absence of febrile symptoms, as quick pulse, hot skin, or during the pains, at digestion, or at the intervals between the meals, which may occur in vascular excitement of the mucous membrane. The temper of the patient is also very variable, this "inquiet, restless, changeable," easily excited insanity mingled. To distinguish the two affections, it is necessary to inquire into the history of the diet. For it would appear that chronic inflammation is not so common, when it occurs, it is from the application of some strong irritants, most generally from the continued use of ardent spirits. Dr. Todd however thinks that "inflammatory stomach hypochondria," which includes vascular excitement from mere congestion inflammation may happen from more common causes, such as living on eating (high seasoned food, drinking cold liquids after violent exercise, fatigue, or when the body is cooled down by perspiration, eating indigestible substances, as mushrooms, asparagus, some kinds of shell fish, etc.) or a change from the use of soft water to hard water.
faltering and forced journeys, night waking, when it occurs frequently in nurses' grief anxiety and depression.

It occurs frequently under a course of nourishment as coffee, tea, or tobacco, or in the course of the stomach, as Dr. Todd thinks there is, great probability in the theory of Dr. W. Philip, that long continued aphasis may terminate in inflammation. But though such things have been long foreseen, as the case to have verified it in observation.

Dr. Morison's third form of pain will be noticed afterwards. Pain in the stomach takes place in a fourth form occurring at uncertain intervals, in most violent paroxysms, accompanied generally by a feeling of distension, much anxiety, and extreme restlessness. In females, it is frequently accompanied with hysterical symptoms. This form seems to depend upon overdistension of the stomach and is relieved by carminatives, i.e. Some observations have already been made on this form of pain. But there is another kind of possessional pain. Symptoms of the stomach, this happens like the preceding in sudden, sometimes violent, pain. But instead of distention
there is a sensation of contraction, a contraction of the stomach as if it were into a ball; the urine passes as if drawn towards the spine, according to Bell. The character of spasm is distinct. It is free from fibrillar symptoms, occurs suddenly, in paroxysms with universal pain and great shock to the system sometimes, as seen in the cold clammy sweat, the great reduction of the pulse (in the medical man mentioned it was 35). This happens in health as well as in disease. It may be produced by a sudden improper of cold drinks when the body is not prepare; cold applied to the surface, metastasis of gout, flatulence, &c. in dyspepsia, chiefly in irritable constitutions, by any irritation of the stomach itself, or communicated by sympathy. The spasm may extend to neighboring parts, the oesophagus, pharynx, &c. Some people call spasm of the oesophagus, hiccup, not all muscular structures are liable to spasms; voluntary, as in those of the limbs, or involuntary, as the stomach, gut, bladder, heart, gall bladder, uterus, &c. An other kind of pain of the stomach is on hypothetical ground only, it is neuralgia. It is not improbable that the stomach may have neuralgia as well as other organs, as the kidney, &c. But the diagnosis must be difficult. These & other accidents in one gift.
Number of the Dublin Gazette. If considerable, tenderness over the subcostal cartilage, the diagnosis of which by Dr. Lee was necrotic.

Uneasiness in the region of the stomach may be from congestion of the portal vessels. In such a case there will be a jerking in the pit of the stomach, loss of appetite, foul tongue, constipation, or pallor of the skin, from congestion of the liver. That irritation may be from congestion of vessels is seen in the hemorrhoids of this section.

Uneasiness in the region of the stomach may be from irritation of neighboring organs that may be rheumatism of the diaphragm, in which there is epigastric pain shooting to the spine, or along the ribs, so that if the right hypochondrium be pressed, duodenal irritation may be inferred. Rheumatism may be in the stomach itself, producing nausea vomiting, epigastric tenderness, a sense of heat, though, or the irritation may be from the colon, flatus, chiasps, indigestion of food matter, etc.

In connection with dyspepsia or in the case of it, severe there has been observed pain in the right hypochondrium beneath the ribs, about midway between the subcostal cartilage & last rib. The character of the
pain here as described by writers are of various kinds. Sometimes a sharp pain; sometimes a sense of heat; or a painful feeling of distention; or a sense of weight and fullness, &c. But generally it is only some uneasiness or, or tenderness, relieved (rarely increased) by pressure. In the same part there may be some puffiness, or a circumscribed swelling, "almost like a blister." Often it is said the tenderness is not perceived by the patient till it is pointed out by the physician, or not till he has led his fingers beneath the ribs. These pains may either terminate of themselves, or are relieved by evacuation, or by completion of the process of digestion, if it is assisted by it. I have seen it also relieved by standing, or aggravated by bending.

Cause. Such a variety in the character of this pain may depend upon different pathological conditions not only of one organ, but also of several organs, in this region. The seat of the affection may be the liver, or pylorus of the stomach, or pancreas, or colon. A proper Consideration of the varieties of pains that may affect any of these organs would be but profitable Speculation. The liver or pancreas may be at once the seat of these pains. And the former it may be said that more frequent alteration, which often happens, would not give
This is tenderly relieved by pressure of inflammatory action from subacute perhaps never happen from dyspepsia, as Dr. Philips supposed, it would be recognized by more serious symptoms. The pancreas we know little about. The Duodenum has been generally accused as the seat of much the pains occurred here. The pathological cause is supposed to be a state of irritation from congestion, or secretory rhythm, marked by characters such as, the pain coming on two or three hours after the introduction of food; sympathetic pains of the head, epigastric, genital, urinary system (C. Todd); the peculiar character of the headache differing from that of the stomach, which some suppose they can distinguish; the unnatural character of the evacuations, the Sunday or dullness of the skin; congestion from impaction of the liver, and the hypochondriacal state of mind; hard or tight pulses (Philips) from the dyspepsia having arrived to a second stage: husky crossing appetites and the dyspeptic symptoms not showing themselves till the food is forced into the duodenum by which the duodenum is known to be alone implicated. The duodenum may often be the seat of irritation.
out of the brain, where it is often accompanied by pain and tenderness in the region of the diseased part. Often accompanied by pain and tenderness in the region of the diseased part, it is the origin of the symptoms. The disease, or by a process of analogy, is the commencement of the disease. The patient, hence, is the observed symptom of the disease, and the disease is the observed symptom of the patient. Out of the brain, where it is often accompanied by pain and tenderness in the region of the diseased part, it is the origin of the symptoms. The disease, or by a process of analogy, is the commencement of the disease. The patient, hence, is the observed symptom of the disease, and the disease is the observed symptom of the patient.
If he thinks, by alkalis, or by swallowing a cup of warm tea, by which the acids are diluted, or
pressed away. It is veryMemoirenttoarguethat
question by associating the time and place. Dr. Starke
argument would not explain the tendency at the
gight hypochondriasis, nor did Dr. Meurerone say
distinctly that, this tendency always happens
three hours before; persistent, 4 four during the
intervals between meals, 4 extending to such length
of time pass, have little doubt of chronic inflammation
from the mere fact of pain occurring between two or
four hours after, and may be owing to irritation of
the stomach, then reaching its height, as well as
from the multiplying contents by decomposition.

The gight hypochondriasis in some cases is
not generally severe, or of long continuance. Perhaps
the seat is often in the Freresine Colon, in which
then may be lodgment of gas producing, tympan
form, especially if the pain last occurring during
digestion, is most often the character of unresisted, not
slaked by fire-meal accompanying with some buffin
rep. I have seen in our grecian several times occurri
rep. here, as at the same time I would trace into
the finger, mind, in the region of the Caecum.
in some parts of the colon. Contraction of the same parts may give rise to unceasing pain, a distention of the colon with gas if compressed by the passage of air, may possibly cause unceasing pain. Pain here is said often to happen in hypochondriac patients whether this be from the connection between the mind + liver, or is why one of the fugitive pains or neuralgic affections of such persons, cannot be known. But in these cases, in which the pain is not known till the doctor thrusts his finger beneath the ribs, it is not improbable that the attention of the hypochondriac thus drawn to it, is the cause of the subsequent pains. Perhaps the latter remedies may assist us in our diagnosis. If the pain here is invisibly alleviated by bland diet, aggravated by a stimulating, one may suspect irritation of the duodenum. If unaffected by diet, relieved by carminative, & by prepare, there is reason to suspect wind in the colon or duodenum. If it is present when heat from acidity are present, it may be from the remains of acids (acetic, butyric etc.). But how often is acidity of the stomach present, when there is little or no pain felt here. Other causes of pain here may be from similar to those affecting the stomach.

Hyperesthesia in dyspepsia. Croppett
is a tolerable good indication of the want of the body, or capacity of digestion. By this is not meant that it has as it were a natural instinct for knowing the requirements of the system, or the tolerance of the system as people sometimes say, explaining away proximate causes by final ones. Hunger is the result of two processes: one in the brain and the other in the stomach, and other parts of the body. In ordinary health, the appetite, not being falsified, are indicative of the general state of the activity of the functions. Thus, after fatigue, all the nutritive functions are less rapid, sensibility is blunted, the mind is as little susceptible to the stimulus of hunger as to that of any other thing. It feels no inclination for food at the same time that it is inclined for nothing. The loss of appetite is one of a simultaneous change in the whole system. That it is going to such a change, is not in proportion to the requirements of the system, may be inferred from the fact, that it is often only increased after food has been taken, that is, when sensibility is increased, along with functional activity elsewhere. But in disease, this relation of the appetite to general functional activity may be altered, whether it be owing to altered functions of the nerves, or of the brain. Noted susceptibility of the.
to stimulate, or of the brain in responding to such.
Stimulus, excites false appetites, hunger. In some
disease, there is at one time craving appetite,
sometimes at another time, great disgust, or
inability for food, dyspepsia, the symptoms are
generally from the same cause, such varieties of
appetite occur in the same individual; generally
in irritable Constitution, are likely to proceed from
the mind than the stomach. Craving for food may
be from local causes of the system, but is only an
exaggeration of a natural sensation (as an ordinary
person is tired, inexciting) owing to that intense
sense of emptiness of the stomach, when the usual
meal is delayed. For the irritable dyspeptic looks
forward for the stimulus from her food as the drunkard
or opium smoker for that of whisky, or opium. Such of
this craving may be aggravated by the mind of the
individual. There is another deranged sensation,
very common in dyspepsia, that is, a kind of false
hunger occurring even when the stomach is occupied
in the food. In such a case the digestion of the
food is not going on. But then the sense of weight or
distention of food; the stomach feels empty, the
craving is very much like that of hunger. In patients,
spirits are low begin to flag. She attributes all this to
want of food. He takes food; a temporary excitement
follows, she is revived; but in the course of half an
hour or even before that time, she is again depressed
is now worse than before. But suppose instead of
returning to food for relief she had taken a good walk,
he would have soon found a sensation of distention
of the stomach, a feeling of the presence of food; she
would have felt more comfortable: by continuing his
walk, perhaps in the course of half an hour, the stomat
would have been really empty; the sense of hunger gone,
or for less urgent, at least not accompanied with
general distress. The temptation of seeking relief from
food is great. Especially if he happens to flatter himself
at the time, that to be hungry is a good sign. Sometimes
the sensation can not be easily distinguished from that
of real hunger, at least by a hypochondriac who have lost
his sense of the natural healthy appetite, from
the newly developed delicate nostrils sensations, may
easily interpret things to their imaginations. Until he
has been often betrayed, or had this been pointed out
to him by the physician, he may again and again be
indulged before he is aware of such facts. These marked
sensations are not unworthy of study, yet it is
impossible
to refer them to the fault of the mind, or inattention of the patient, or one of the hysterical or hypochondriacal manifestations, as if they spring from no local cause, that the mind is the cause not the sympathetic manifestation, that such sensations are entirely at the will of the individual. If the patient is less spirited, he is supposed to be so, because all depressions are liable to be so; he is exhorted to be more cheerful, but without much effect, till some irritating matter has been rejected from the stomach. Treatment. These depressive sensations of hunger should be pointed out to the patient. He may infer that the sensation is not real, by the time a certain quantity of food taken ought to last; by the fact that such hunger is not come from exertion, but the opposite. If such sensations should come, the patient should restrict himself to walking or some other exercise, although then he is least inclined to exertion, or is induced to believe that for want of strength he may faint in the road. He should also learn to endure hunger, whether true or false; and not to appease it immediately. The power of endurance of these uneasy sensations varies with individual
Strength of mind, the occupation in which one is employed. People engaged in mental labors cannot bear the least disturbance, while those from whom patience, perseverance alone are required to effect their customary duties, are more able to endure a life little to be annoyed by these morbid sensations.

Difficulty of procuring sleep is also a very common symptom in dyspepsia. The most common cause is want of exercise, so that there is not sufficient fatigue for the body, and a mind morbidity relatable. To sleep may be rendered difficult by studing late, by business, or things of interest being mentioned at late hours; by the sensation of hunger by flatulence causing anxiety, oppression, a difficulty of breathing in the recumbent posture; by a full supper, which acts directly by its oppression sensation, or afterwards when digestion has gone on for some time, by the stimulus to the cerebral functions not allowing it to repose; or by a departure from old habits, even the most absurd. Treatment, consist of avoiding the above causes. Nothing so effectually procures sleep as exercise, but too great fatigue may prevent it. Avoid heavy suppers. A light supper favors sleep by appeasing the uneasy sensations of the stomach, and in a certain
stage of digestion, by imparting bitterness to the mind,
preventing that cleanliness of mind, or mental clarity,
from hunger. If a heavy supper is taken, even if it
be procured, (what not very refreshing) still then
will great adiposity or leaving next morning, when
this happens, breakfast should not be taken, the circu-
lation has thoroughly emptied the stomach, and a percepti-
ble wish for food is acquired. The patient should avoid
taking tea or coffee late at night, or too much of
them during the day. Nor should short naps or
regular hours of sleep in the day be indulged.
But habit makes great difference in people, what
exercise, the most important thing is, to preserve
all those peculiarities of the individual that favor
sleep, whether that be the bed, the temperature of the
room, the kind of supper, or certain routines before
bed, or the hour of retiring.

The want of sleep tends very much to aggravate the evils of apphesia.
It takes away the appetite, dries the belly secretion, as seen in the yellow skin, yellow conjunct-
viva, occasionally this secretion of bile from the
stomach; exhausts the nervous powers, & increases
the instability & hypochondriasis of the patient.

Ac dyspepsia is often in those of nervous constitution
a disease rather of the system than the stomach, to
sleep is one of the most effectual means in the cure of
dyspepsia.
Constipation is one of the most common symptoms of
dyspepsia. Its effect is not so much of the dyspepsia
as of the cause of the dyspepsia. Its proximate causes
are deficiency in the contractile power of the intestinal
coat, or susceptibility of its mucous membrane to stimuli
or the want of stimuli from deficiency of bile or intesti-
nal secretion, or from the too concentrated quality
of the food or the part of the system, depressing paper
toptitude of the general functions of secretion, etc.
Carious, except loss of fluids by other channels
as skin, kidney, or from vomiting of fluids from the
stomach, etc. The effect of constipation on the stomach
is very injurious, by mechanical distention of the trans-
verse colon, presenting the fore movements of the stomach,
by congestion engorging circulation of the biliary vasa,
by the dulness of the intestinal coats, causing a similar
condition of the stomach; by its action on the nervous
system, which exerts injuriously on the digestive function,
or by congestion of the liver, retarding the secretion
of bile. The medicines from constipation are
sometimes very considerable, such as hypochondriac,
pain in the back, coldness of the limbs, distension of the stomach, pain in the legs, chillings, headache, flushing of the face; and even eosin of the legs, pain in hysterical females of the joints. Then such symptoms occur in a dyspeptic, the stomach may be thought to be real cause the dyspepsia being sympathetically aggravated, or the liver may be blamed for the bilious disturbance, and blue pills given, when perhaps the secreting power of the organ is not really diminished, but for the congested state of the vessels induced by the constitution, or bile from the cause not solicited. In health the liver of constitution may be more correctly estimated than in one to whom the stomach is a constant and principal theme of study. The patient is inclined to believe that every evil arises from the fault of that organ, that provided that is right, the rest will be so. If he can be persuaded that more than half of his evils lies in the system, that treatment consist of measures directed to that, it is not in the constant use of medicine, CURS would be much facilitated. Inspection of the evacuations is recommended by Dr. Paris, but ordinarily this is perhaps not necessary or desirable, tends to aggravate the sufferings of the patient. Its obvious this he should
be told to take exercise either than medicine, to obey the call of nature, regularly, & without much delay (for the stimulus not responded cause to stimulate and this may perhaps account for what Dr. James Johnston said that travelling induces constipation.) and to avoid too concentrated food. The common lowly bread is extensively used, observed by for this purpose. It is not always perhaps necessary to have a passage every day since it must vary with individual habits, but the hour for it should be regular. The habit of proceeding to business after breakfast little opportunity allowed for the performance of the intestinal function must induce constipation.

Wine in indigestion. The urine in dyspepsia may be examined for the diagnosis of other diseases of which it may be a symptom, or for ascertaining the pathologic condition of the stomach or the other functions of assimilation. The urine varies in character I cannot distinctly serve for the diagnosis of dyspepsia, see Kindberg prescription to it. The variations is connected with the predominance of some symptoms. As a general thing, when there is less is great reasons irritability the urine is passed with great frequency, clear, thumped, & opaque, Dr. Johnston wondered how such clean urine should...
be so irritating. Whether this be owing to the urine containing irritating matter or not, from the products of indigestion in part of the instability is perhaps owing to the sympathetic instability of the bladder. Urine of cancers, incrustment, & hysteria are also pale color. In the "stone gastrics dyspepsia" characterized by larger is slow digestion, Dr. Todd says the "urine is clear, Cephus flower of its natural color, different of course, sometimes albuminuous, when discharge to putrefy or standing." After the paroxysms of a fit of dyspepsia the urine is often high colored, dry, impure, which may be owing to the irritation of the attack, so the acidity of the stomach but more probably from the large quantity of animal food that occasions the paroxysm. For it may be often witnessed, that no little or even high colored urine is passed, even after a considerable fit of indigestion of not a small quantity of animal food be taken. Besides acidity of the stomach, redating life inducing action of the skin, & other causes that produce concentration of the urine will favor the expulsion of lithia. Albumen in urine Dr. Pons says that he had met with several cases of dyspepsia in which albuminous urine occurred, that he was disposed to believe with Dr. Pont, that it
is derived from the chyle, which, not having undergone
necessary changes to convert it into blood, is eliminated
by the kidney. Modern observers have also found that
women's urine may be produced by indigestion
from eating indigestible matters. Such occurrences is
always suspicious. In two cases mentioned by Dr.
Christian, in his Clinical Lectures, in which such
urine happens rather frequent, the individuals were
soon full attacked with Bright's disease.
Small crystals are also often seen in the urine of people
with Bright's disease. These crystals seem to be quite common
in the urine of large tumours. When a large quantity
is passed, the patient exhibits symptoms of debility,
irreversibility being full of hypochondriacal
atony, fear, anxiety about their bodily or mental
powers. Many causes will produce deposition; these
crystals such as indigestion, respiration by the imperfect
oxidation of the nitreous matters that are usually
eliminated under the form of urine acid and carbon.
It
occurs in emphysema, after repeated attacks of bronchitis,
but the indulgence of drinks containing bicarbonate and
the Alkaline Carbonate, &c., vegetable salts, which seem to
not be sufficient to be the cause in the case of
those hypochondriacal dyspeptics mentioned. In them it is generally connected with great constitutional depression, especially of the nervous powers, as such vomit is met with in those who are exhausted by mental labor, in clergyman, literary men, or in other diseases in which there is nervous prostration.

Treatment has been most successful by the mineral acids as recommended by Dr. Pent. The nitric or nitrous acid may be given till the urine acids begin to precipitate. This requires a large quantity taken.

Nervous system. In all the functional disorders of the stomach, the management of the mind of the patient is an important aspect of treatment directed to the stomach. The mind is even more affected in perhaps functional than in organic disorders of that organ. This is the case in diseases of the heart. The mind is less affected in dyspepsia among the poor, or in the aged, in whom sympathy is slow, as every function is slow, the very opposite of the young. The effects of dyspepsia on the mind must vary with individual temperament, and other variety of causes that operate on the mind at the same time. But as a general thing, if the dyspepsia has lasted for considerable length of time, the temper is changed; the patient is
First impatient, irritable, easily annoyed by every trifl;\nthe power of attention is lost to such that the least capable of\ndelving Continuous thought or memory is consequently lost\nintuitive: the will is life strong: the patient is fickle, has\nlife patience, resolution, perseverance, indulging in\nindolence, procrastination: fear, an unceasing apprehension;\ndelusions of evil, a magnifying difficulty have always been\nobserved by those who have treated this disease. Along\nwith this loss of mental energy there is often a fever\nindulgence of the morbid emotions, as may be seen\nin other diseases, when the intellect has lost its\nascendency. Yet it must be said that the stomach has\nproduced many a strong man, who could endure at least many\nother pains and has deprived him of some of the noblest qualities, such as courage, enthusiasm, gallantry, \nthat depend much on the stomach for their manifestations. Hence Dysepsia are sometimes\nthe most deplorable looking patients.

The Causes of Dysepsia are the ordinary Causes of\nall diseases. But generally the most Common Cause\nare sedantary life, mental excitation, care, anxiety, depres\ning passions; & errors of diet. Dysepsia is far life\ncommon in the Country than in towns, where there is\nmuch excitation of mind, and little of the body, but
air, and confinement, much indulgence of the appetite, with life capacity for it. It is more common still among literary men, students, writers, clergyman, people of the nervous or melancholic temperament, people of indolent habits, not obliged to work, and can afford to live well; or those having nothing to do but to think about their ailments, not interested in the pursuits of life, or sick of them, or who losing their relish for other things only concentrate it to the table. As regards age, it is most common in the middle period of life, that intervening between this and old age. It seldom happens before the age of twenty-five. Females are more common than males. Among errors of diet, the most common is, imperfect digestion, and food insufficient in quantity. The Americans suffer from both causes, but principally the former. Food is only sedentary when it is not in proportion to the demand of the system. Dyspepsia happens to those who continue to take the same quantity of food, after they have changed their habits from one active to one more sedentary, as happens to students coming from the country to attend College in winter here, to people retiring from an active life, or those approaching old age.
Pathology of Dysspepsia. Dysspepsia is essentially imperfect performance of digestion from debility of the stomach. By debility is meant its defect, in the secretion of gastric juice, with the contractility of the muscular coat. Of these two points, with the following observations be chiefly confined, as the nature of the symptoms have already been considered.

The Contractility of the Coats. There are many causes that even in health interfere with its energetic and regular contractions. Forained as a muscular organ, one can hardly avoid thinking that it must be impaired in its function in the indigestion, after general fatigue; or too long abstinence; or debility after diseases; in old age; from constant irritation from sympathy; in sudden withdrawal of nervous influence during digestion, or from shocks upon the system, as by the division of the paroxyn, &c., or upon the spinal cord. Depressing poison of the mind must act upon the contractions of this organ, as upon that of the heart. It may be thought that dyspepsia arising from habitual overeating there is no deficient contractile power of the stomach, because excess of food only increase it. But in gluttony, food may be taken too large in quantity for the energetic performance of
this function. Also the distention, from the expansion of the food by heat and moisture, or by the discharge of gas may weaken the coats. Whether dyspepsia may arise from irregular movements of the stomach is not known, but there is no reason to suppose that this occurs in the ordinary dyspepsia. Deficiency of the gastric juice is another cause of dyspepsia. This happens temporarily, as in sudden impressions made on the mind during digestion. But what is the cause of the habitual deficiency in dyspepsia? In some cases it may be connected with deficiency of blood, in others from excipient irritation of the nerves, so that the secretion is dried up as in other glands. For there is reason to suppose that in many cases the habitual use of spirits, confection, or food too stimulating, constant irritations of indig- estible substances, acids, may have rendered the mucous membrane morbidly sensitive, so that through the irritations of the nerves the secretion of gastric juice becomes impetuous, or vitiated in quality, in other glands. But in the common dyspepsia, the deficiency seems not to be much connected with either of the causes mentioned. There is little or no pain after the introduction of food, although
the mind be ever so cheerful, & the blood be not at all deficient in quantity; still the performance of digestion is slow, & irritation of the stomach, commenced two or three hours after meal, as the effect, not the cause, of the deficiency of gastric juice. This permanent deficiency of the secretion, there is reason to apprehend, in long continued cases, especially in those addicted to spirit drinking, from degeneration and atrophy of the follicles of the mucous membrane, as in the kidney. Such degenerations have been observed in the stomach, but I do not remember that they have been in connection with dyspepsia. In the more recent cases, in which the dyspepsia is perhaps purely functional, without giving further explanation, it may be said, in most cases, to be a debility following excessive emotion, but in those who spoil their stomach by overeating, or in any way taking its power beyond what is proper. But this theory, of supposing the subsequent defective action of the gastric glands to be due to the prior over-excitement to secretion, cannot be maintained, if the theory be true, that to use Dr. Carpenter's words, "though gastric juice only is secreted, as the system requires," according to this, the secreting power may be injured by the constant irritation of food not digested,
or the products of their decomposition, but not by any previous exhaustion of its functions. Of this kind, dyspepsia might be for more common since, every time that more food is taken than is sufficient to replenish the costs of the system, he must have an attack of dyspepsia. For no gastric juice is secreted for what is superfluous. Now it is a notorious fact that most men take more food than they require; out of that large number few, in health, feel any serious derivations from their meals. It is owing to this absence of any ill effects, that these very dyspeptics have been encouraged to indulge themselves. If they have been constantly attacked as the result, dyspepsia would not have come on so insidiously & for so common. Nor would we have people of plethoric habits. For there is more blood than the system requires; a there is more blood, because more food has been digested. It is commonly observed that litters feed in great quantity after animal must have been largely used; because perhaps more than can be assimilated; but there is a surplus from the blood, which would not have been largely supplied but from the food being digested. But this cannot be maintained to be owing to acidity of
the urine. We use drugs, condiments &c. for the purpose of stimulating the secretion of gastric juice. But they would be of no use, if the system, stomach, knows better than we what the system requires. We see nothing analogous to this in other glands, as the liver, kidney or, all which are susceptible of stimulus, often become sluggish from overaction. On the other hand, how often, as many diseases, the system requires nourishment, but gastric is not secreted in proportion to the demands of the system. In most cases connected with debility, as after fatigue, or in the last stage of Phthisis, or of fever, the glandular function of the stomach is ablated. As every other gland, every other function is in the same condition, quite independent of the real demand of the system. The stomach, as far from being so astringent, is perhaps one of the most indulgent of organs. It bears a little stretching ordinarily; but if this is long continued, then appetite commences after repeated aches. It would not be easy to estimate what the system requires, after the food is taken. For if the food is all rejected, one may suppose that the system requires all that, which maybe or may not. Hence observation will not always determine this, since the standard
of demand is not fixed, and it would be objectional
of determined by the theory. Because many things
will interfere with the secretion of the gastric juice.
Ordinarily, it is probable that the activity of the
secretion is one of a simultaneous activity of all the
other functions of the body. The waste of the system
alone will influence the amount of secretion, much
like it is capable of restricting the quantity it is capable
of secreting under certain circumstances. Dyspepsia
Then is in most cases from over-stimulation to secretion.
This is at first perhaps from food; but when food
fails to stimulate, hot condiments, spices, were resorted
to, for an already debilitated stomach to digest.
It is perhaps the pathology of a weak stomach.

Treatment of Dyspepsia After what have been
said under each symptom, the following observations
will be only of a general nature. Treatment of dyspepsia
consists of regulation of diet, adoption of habits
for promoting digestion and general health; mental
education; medical treatment. Under regulation of
diet, the proper quantity & quality of food; and the time
of taking. First the quality of food. The following are
considered not very digestible: articles that contain fats,
for clomplings, pork, bacon, strong broths, poorly done
articles, city fishes, melted butter; many vegetable fires, beans, potatoes, cabbage, cucumbers, the different kinds of broccoli sprouts, especially if not ripe, pickles. In general flesh of young animals, as veal, are less digestible than that of old ones. Salted or smoked meat are less digestible than Baxter meat. Also cheese & new bread, besides indigestible, are apt to cause acidity. Ordinary digestible articles, as stale bread, boiled beef, milk, fresh milk, & butter in moderate quantity, well mixed with other articles, soups, & soups in general, soft baked eggs. As tomatoes, tea & coffee in moderate quantity, taken in proportion as three hours after meals or in the last stage of digestion, has not only the most exhilarating effect on the mind, but promotes digestion, but most injurious if taken in too large a quantity or immediately after food. During a meal unless the food be dry; little liquid should be taken, getting must interfere with the operations of the gastric juice. With regard to wine it has been asked whether it should be used. If it be taken habitually, it appears to be injurious, the only good is supposed to be from the stimulus imparted to the stomach, the texture. But the stomach has been already overstimulated. With regard to the asphodel, it should not be a question how much he can take.
with impunity, a rule for can be obtained from it without injury. For the simpler the diet, the better. Regarding Condiments, there has been various opinions also; but a moderate use of them is good. Take them away from a patient is unreasonable, unnecessarily strict. The attempt will fail. Even in this case, the decision of the doctor will not be fairly satisfied by the patient. If total abstinence be enjoined.

Proper quantity of food. In general, more in quantity is by far the most common cause of dyspepsia, to the food of dyspeptics, who are very common among the better classes, is generally of a very digestible kind. No exact rule can be laid down for the proper quantity. That given by Sir Henry Holland is "not to fill the stomach to a disagreeable sense of elevation." Yet this excellent rule may be abused, if the dyspeptic can not easily perceive the sense of inner fullness. For frequently the stimulus of food is so grateful to the dyspeptic (as many of them have good appetites, or false appetites, though weak power of digestion) that he often takes more food than he was aware of; the fact becomes only known by the subsequent effects. Also if the food be not thoroughly masticated, insufficient length of time be allowed for the food to
be diffused or expanded. The sense of uneasy emotion is likely felt. Perhaps it is better for each individual to regulate the proper quantity for himself by a few trials. If disagreeable symptoms present themselves by taking a quantity today let him take less tomorrow, or soon, till a quantity be found that can be easily digested. There may be some variations to this standard quantity by variations in the amount of exercise, etc., but they should not exceed a certain limit. As a general thing, a small quantity of concentrated food is better than a large quantity of insipid food. I have observed that ordinary articles of food (as beef, mutton, etc.) are very digestible and liable to acidity, but only objectionable from their not giving sufficient stimulus to the intestinal action.

Time of Eating. The ordinary rule is, that the interval between each meal should not be less than four hours, that the principal meal should be taken at midday, which certainly is preferable if circumstances allow. But this hour should not be adopted if he must proceed immediately to business. The matter digested thus being will be well performed. The fashion of dining late is condemned by all writers of dietetics. But since custom circumstances require. The patient, though he
may have his dinner hour late, should not have his dinner at that time. The rule is, to distribute the quantity more or less equally to each meal, at least to avoid making one meal compensate for another, or make the stomach take more food, when it has been longest out of it. The intervals between meals should not be short, to secure sufficient rest for the stomach, to reinvigorate itself. Exceptions must be made for those cases of much gastric instability in which a small quantity only can be tolerated. In these cases, a small quantity frequently repeated, is necessary. If the stomach will soon conform to this new arrangement, you should this interval be too long, to avoid fatigue. Some people lose their appetite (as their temper also) are thoroughly proscribed, by long delay of their accustomed meals. Dyspepsia should never fast without very good reasons for it.

Conditions to be observed for promoting digestion. There are 1. Have some exercise before each meal (unless then be fatigue) to secure an empty stomach, and keen appetite.
2. Do not take food in condition of fatigue, if any be taken, let it be light (as soup) so that the stomach may be gradually prepared for it. As a general thing, little food should be taken, if there...
no appetite for it.

If food be taken, let the mind be thoroughly disengaged, and enjoy the meal. Dyspepsia will not long be delayed, if a man is often about minded in table, for this reason, Conversation & Company have a good influence on digestion. The food also should be thoroughly masticated. No haste is not desirable here; the work is only transferred from one Complety under our Control to one of which we have not performed by an organ already well, that is, expended labor to a weak stomach. Food therefore hastily eaten is slowly digested.

4. After meal there should be no actions of anyone kind, bodily or mental. It has been a question whether sleeping after dinner is good or not. Some think that it promotes digestion; but this is not generally so. In the first stage of digestion if an individual cannot help sleeping, let him sleep; but those not who are feverish, excited, for sleep would save them much of the mental suffering that would interfere with digestion. But a cheerful engagement of the mind, in Conversation or reading of Newspaper, is by far the most preferable preferable. It is better to take a lighter meal than to adopt such listless habit.
Mental Delusion. Abandonment of Rowe's studies. Cherful society. Traveling abroad, whatever influence calculated to break down old associations engage interest. Disease hope and confidence will promote the object. Studies requiring a continuous uninterrupted effort of the attention to master, or whatever is complex in its nature demanding much mental abstraction, exhaust the nervous power and should be laid aside. On the other hand not to leave the mind unoccupied a change may be made of those that require only the perception faculties. Intuish the senses, or whatever that interest without exhausting the attention by its continuity. Traveling is spoken of by all those that know the subject as best calculated to promote all objects contemplated in the mental region of disputables, but that it should be of some length, six months or a year, that the residence should not be long continued in one place as to be monotonous. It is said that even the very accidents of traveling by transferring the attention of the patient to new sufferings have been sufficient to bring about a cure. Medical Treatment. It consists of the administration of medicines acting locally on the stomach, generally on the system, or the palliation of symptoms. The best
Treatment of the symptoms have already been considered.

For improving the tone of the system, the most commonly used are the different preparations of iron, such as

- Ferric Phosphate; the Ferric Carbonate, the
- Sulfate of iron, the Chlorate, or Amoniacal Citrate, or the
- Syrup of the Iodide. These may be given along with
- Antacids, laxatives, or some alteratives, or with Bismuth.

For giving tone to the stomach, the vegetable bitters are always considered the best. These are Quassia,

- Gentian, Chenopodium, Cistus, and used in the form
- of infusions along with the mineral acids as the Bicarbo-
- nitric acid, or Sulfuric acid, or the Sulfur-muriate
- acid. Quassia in small doses have also been recom-

  mended. "Quassia," says Dr. Reid, "increases the
  secretion of the stomach in greater degree probably
  than any other medicine I have passed." The Bitter of
  Quassia was recommended by Dr. J. Johnstone for "curled sensi-
  bility of the stomach." Quina is considered as
  by far the most powerful tonic in dyspepsia, especially
  such as Cinchona, with various exhaustion. We also
  have the Sulfate of Bismuth. Other tonics for stomachs are
  also recommended but by commonly used, such as
  Cinchona, Chamomile, Wormwood, Gascoyilla Tincture
  of Hops, Rhubarb in small doses, Spermaceti, Sirup,
Vegetable waters should be taken 15 or 20 minutes before the meal. How they act in this will remain. Mr. Headland appears that they are "hematophobia" that they are used in blood diseases. But there is no reason to suppose that in a regimen in which they are principally used there is any common any fault in the blood or even in other chronic diseases continues. If it act by supplying some deficiency from a want of the blood "it would be of great consequence to give it sometime before meal, to prepare the stomach for food by a local tonic action, as the common practice is."