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Some Observations on the Refusal of Food in Insanity.
Being a Thesis for the Degree of M.D.

by

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Some Observations on the Refusal of Food in Insanity.

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2. Preliminary Observations.

In making a digest of a bibliography two methods are placed at one's disposal which each possess distinctive features and advantages. For brevity, avoidance of repetition and the virtual omission of writers who fail to add anything original to the subject of inquiry, a systematic method of arranging the medley of facts detailed will be preferred to a chronological arrangement in which unavoidably there is entangled a labyrinth of fresh and of resuscitated observations. Probably the chief objection which attaches to the former procedure is the difficulty in adopting a classification sufficiently comprehensive to include not only all that has been written but also to be of convenient application to all that
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that hereafter may be. But this impediment is in
great part removed by a division of the subject matter
which shall recommend itself as natural & comprehensive.
Such an analysis of the facts and opinions hitherto
pronounced on the refusal of food in insanity may
be effected by re-organizing every symptom and hypothesis
and every lesion to its pathological heading. And
this is the course now proposed to be followed.

Expressions made use of by the separate authors
will be so far as possible retained, and where two
phrases might with no violence be fused the older
will be selected.

3. Analysis of Bibliography.

The term Refusal of Food in Insanity has scarcely
ever been defined. When definitions have been
elaborated they have chiefly referred to the treatment
considered necessary for aphasia and not to the
conveying of a notion of the nature of the affection
by means of particular, antithesis or analysis.
More stable that forced alimentation consists in
violently overcoming the obstacles which are opposed
by the means person to the introduction of food.
Lips holds that refusal is never complete until four
to five days of fasting. Leon de Verges excludes
idiots and imbeciles from the class of cases of forced
feeding.
Bibliography

feeding, and calls their case one not of forced but of
artificial alimentation (vide Harrington Luke). But
the majority of writers are content to assume that the
term refusal of food in the insane is sufficiently explicit
to require no definition.

The general appearance of patients who insanity
refuse food differs but little from that of those who
by physical obstructions to the reception of sustenance
experience starvation. The idea is erroneous that the
insane can endure fasting with less injury to the
system than if they were sane (Burrows). A
state of mania, wasting and marasmus follows
refusal of food (Burrows, Borolly, Morel, Guiotain,
Luys); it is accompanied by lassitude and fever
(Guistlain), and if refusal be not overcome this
marasmus ends in death (Burrows, Morel). Some
patients are in a hopeless state of mania and
unconsciousness before they refuse food; some are
violent, wilful, exhausted and feverish; and may
be so feeble as scarcely to be able to walk (Borolly).
Acute melancholies are often much depressed in
vital functions (Lawrence). Whether, however, a
patient is exhausted and weak before refusal or, not,
this, on the other hand, is certain that wasting
rapidly proceeds from cerebral processes (Guistlain, Luys).

Numerous Disorders of the Alimentary System
have been referred to by observers as a source
accompaniment,
Bibliography.

accompaniment or result of refusal of food. But at the outset it is well to remember that all nervous cases suffer from dyspepsia (Gardiner). The digestive functions in the insane often become the source of disorder: it may be either from repulsion or, what is more frequent, from refusal to take nourishment (Georget). This digestive derangement—may be either simple dyspepsia or a more grave— an organic affection (Lawrence). Dyspepsia is common in the insane (Bucknill and Juke), indeed, almost every lunatic is dyspeptic (Foue). It is a frequent cause of somnolence (Guilain), and it is possibly an efficient cause in the production of insanity itself by impeding bodily nutrition (Bucknill and Juke). Alimentary disorders occur almost always at the beginning of mental maladies (Squierol, Moreau, Sandras) but sometimes they arise in their course, either as a primary or as a secondary illness and in certain instances they occasion illusions (Squierol). In cases of insane refusal of food the digestive and assimilative functions may be weak (Burrows). The secretions are faulty and almost inactive (Ellis); the prima inter alia are in a torpid condition (Munro), and lesions of the alimentary canal are common (Squierol). Dyspepsia occurs in one out of cases of refusal (Moreau). The tastes and organic feelings of maniacs are profoundly altered (Maudsley, Hammond). The state of general nutrition of melancholics refusing food is often low and their digestion
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digestion is disordered, leading to an increase in their delusions and in their refusal of food (Maudley).

In cases of salivatory dysphoria, parching and furrowing of the mucous of the mouth occurs (Sundrao). These are anomalies often found in the initial stage of insanity (Sundrao). Inflammation of the buccal mucous membrane, erythema, etc., are frequent in salivatory (Arisinger), and catarrh of the mouth and pharynx results from obstinate refusal (Reinhard). According to Sgurrol the tongue becomes furred before refusal. In salivatory the tongue is pale, or covered with a mucous coating, or bright-red in patients with atomic disease of the stomach (Guilain). In some cases of wilfulness, violence and exhaustion the tongue is red or thickly coated (Blandly). It is foul in most instances of refusal (Wilmot): it is coiled at times in melancholia refusal (Maudley): and it is creamy in cases of refusal with digestive disorder (Bucknill and Locke). Furrowing of the tongue, lips, etc., is due to the altered state of the buccal secretions resulting from a modification in their condition.

Among the abnormalities which are found in the initial stage of insanity there is an abnormal increase of the salivary and buccal secretions, and an alteration of these liquids affecting their alkalinity or acidity and causing in some instances a diminution or a loss of appetite (Sundrao). A large quantity of saliva is frequently retained in the mouths of those who refuse to unclove.
Bibliography

unclose their jaws (Munro). Foul of breath can be perceived in cases before refusal of food is developed (Esquirol), and it also occurs in cases suffering from sialothorax (Lawrence, Bucknell and Tuke, Lynd) as a result of that affection (Lawrence, Lynd). Lawrence says that this extremely disagreeable odor which the breath acquires is one of the most characteristic symptoms of want of food. It is sometimes so peculiarly sour and so distinct from the fetid breath which marks ordinary dyspeptic derangements that it can be easily recognized by all who have perceived it for a limited number of times. It arises doubtless from the altered state of the secretion of the mouth and stomach. In cases of sialothorax, the mouth becomes clammy, the teeth become foul, and, in the worst cases, are covered with sordes; the tongue is coated with a thick white fur of old epithelium; little saliva enters the mouth, and what does is allowed to escape by the lips. The offensiveness of the breath soon disappears in most cases, if a regular and sufficient supply of nourishment is administered, without the aid of medicine at all—a circumstance which shows that it mainly arises from the want of food and the consequent state of the mouth and body generally, in which the wasting process far outstrips and exceeds the renewing; but so marked and constant is it
Bibliography.

that in the case of newly admitted patients, about whom no very definite information can be obtained, it may be taken as a good guide as to whether the patient requires to be artificially fed or not. Reinhard, in an article "On Salivation in the Insane" states that an abnormal increase of saliva exists in from five to six per cent. of the inmates of an asylum, and among these is a group of patients with a mania for self-destruction by poison and by obstinate and violent refusal of food. In this group there is a condition of irritation of a psychical or cerebral origin, a process that might be classed generally amongst the "conscious reflexes". These patients imagine that they are forced to take bad-tasting, injurious or even poisonous compounds— they take these proteins plentifully, and are hence unable to get rid of the taste; the saliva flows freely, and they must spit it out constantly. Besides the flow of saliva is increased by the efforts of the patients to get rid of the remain of the poison to be found between their teeth, in the cavities of their teeth, and the buccal cavity, or else of the illusory food itself. In their fruitless endeavours they keep the tongue moving about in every direction in the mouth, pick their teeth, and search all the corners of the mouth energetically with their fingers. In this way the mucous membrane of the mouth becomes more and more irritated, so that first the saliva in this class of patients is thin and watery and seems to be chiefly
Bibliography.

Chiefly secreted under the influence of corda tympani" mune irritation (corda-speichel). At least, he says, I have never been able to find many gelatinous masses in it. However, this watery character is gradually lost as the mucous membrane of the mouth becomes more and more irritated, owing to the fact that its epithelium and that of the ducts of the mucous glands is mingled in greater quantity with the saliva. The secretion then becomes whitish, turbid, and much thicker. This is more pronounced, as the irritation of the buccal and pharyngeal mucous membrane becomes more intense — an invariable consequence of chronic refusals of food. When these constant aetiological are very severe, the saliva often becomes purulent - creamy - without diminishing in quantity. Three times the normal quantity of saliva may be secreted, but it is opal white. The injurious effects of salivation upon the whole system are most readily seen and are easily appreciated. The digestive function already seriously impaired by the want of nourishment, the little that is taken having to be forcibly introduced, must constantly suffer still more from the want of the assistance of the saliva, which plays an eminent part in the chemistry of digestion.

At the commencement of almost all cases of meatal" the patient dietary food (tissue). Sialophobia itself also develops an anarthria vis of the sense of appetite (thirst). In cases of chyloriotic disorder leading
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leading to refusal, there is a positive loathing of food (Winslow, Harrington Juke, Flintham). It frequently happens that insane persons taking no solids will in general drink readily and especially (Priel) for patients with catarrh suffer from thirst (Gurlain). Sometimes only a special kind of food, served in a special way, will or will not be taken (Hammond). In acute mania the appetite for food is usually paralyzed, though not always that for drink (Glonston).

Refusal of food in a lunatic is often a mere indication of gastric disorder (Davy) but chiefly this idea is in most cases of refusal, great gastric derangement (Winslow). This refusal may be due to some disordered condition of the stomach e.g. from alkaclis. That organ may be so distended with flatulence as to make all desire for food lost (Gardiner). Tenderness on pressure in the epigastrium occurs in most cases (Winslow), and gastralgia in dyspeptic cases (H. Juke, Glonston). In every case of delusional mania and especially in acute mania there is probably some indication of gastric disorder to be found (Cromley, Hammond). In the exhausted stage of acute mania the stomach may be full of undigested food (Glonston). Dyspepsia occurs in maniacal and in some melancholic cases of refusal (Haudsley). Out of 365 cases of melancholia Glonston found want of appetite in 60 per cent. In melancholia a patient may refuse food.
Bibliography.

Food, from actual anaesthesia of the nerves of the stomach, or from hypotonia, or from secretory causes (Raynor). In such cases of melancholeia, refusing food, the mucosa of the stomach is frequently inflamed, softened and ulcerated, and it is always difficult to determine whether this condition is the cause or result of the abstinence (Bucknell and Lake). Ulcerated and inflammatory stomachic diseases are not uncommon in insanity (Mickle). Softening of the coats of the stomach is sometimes a concomitant of advanced cerebral degeneration (Bucknell and Lake). Injuries of the corpora striata, erura cerebri, or spinal cord, cause softening and ulceration of the gastric mucosa (Brun-Segnol). Injury of the stomach in cases of refusal is due to the vagus having undergone a morbid influence (Guiclain).

Obstinate constipation arises in the initial stage of insanity (Sandars), and frequently occur in atopyphobia (Guiclain), the secretions of the bowels being faulty and almost inactive (Ellis, Bucknell and Lake). The bowels are disordered or inactive in any delusional (Levitt) and especially in any maniacal case of insanity (Levitt, Gilmour). Out of 365 cases of melancholeia Gilmour observed constipation in 50 per cent. Etiroit found the mucosa of the colon extensively diseased in one fatal case of refusal. Intussusception may occur in cases of atopyphobia with organic
organie disease (Harrington tube). And ulcerated
and inflammatory intratrival diseases are not uncommon
in insanity (Hickie).

Winston affirms that Hypertic Abnormalities occur
in most cases of refusnal. So general form the brain diseased
in one fatal ease.

The Spleen was diseased in a single fatal ease (Squirel).

There is acceleration of the circulation in patients in
whom there is passive irritation (Hickie) and the
pulse is rapid in cases of marasmus labouring under
refusal of food and chronic complicated disease
(Gordly).

Out of 13 fatal cases of refusal of food in the insane
10 had gangrene of the lungs (Hickie). In nearly
every case of refusal which has been fed by the
stomach pump gangrene of the lungs is the cause of
death (Rutkinford, Balby Duke, Skae). Howden
admits that in his practice nearly every patient
who died of gangrene of the lungs had been artificially
fed but he says it does not follow that forced
feeding is the cause of this gangrene. Blundon has
had two cases of gangrene of the lungs which did
not receive sustenance by artificial means. He
believes that cases deficient in nervous power are
the cases in which gangrene of the lungs occurs, rather
than in cases which happen to be fed.

The Skin is hot is scrophula (Hickie).

Anomalie
Bibliography.

Anomalies of Urinary Secretion and Excretion often occur in the initial stage of insanity (Sandras). In cases of refusal the secretion of the kidneys seems to be almost in a state of total inaction (Ellis).

Sex influences refusal of food in so far that many more inexcusable cases arise in the male than in the female (Newington), in whom there is often no object in undergoing starvation and the symptoms is simply of an hysterical nature (Newington, Hammond).

In the Nervous System various subjective sensations have been noted. In many instances, as mentioned before, there is a paralytic of the appetite for food, with a complete reversal of that appetite in the form of an intense dislike to it (Blomst). The sense of taste is disordered in acute maniacs suffering from sociophobia (Maudsley), headache occurs in dyspeptic cases (H. Juke), and vertigo in cases having an insufficient supply or experiencing a total want of food (Browley). The motor forces undergo considerable diminution after 4 to 5 days of sociophobia (Blomst) and paralyses of deglutition may occur, e.g., in general paralyses (Newington Juke). Impaired vital power is common in cases of refusal, sociophobia being, indeed, a symptom of decline and death (Ellis). The trophic functions are diminished in cases of refusal, which die of gangrene of the lungs (Blomst). There is a general sluggishness of nutrition in some melancholics causing
Bibliography.

causing refusal of food (Maudsley), and in some acute cases great mental depression is the cause (Lawrence). A febrile condition may induce autophagia (Tawney) and on the other hand refusal causes fever (Sinclair).

Some of the older writers (Vol de Grace, Frank, Turek) held that insanity is always due to an irritation of the brain, and some modern authors believe that cerebral irritation is the prime cause (Reinhard), or that a convulsed or hyperaemic state of the brain may be a cause of the refusal of food. The brain irritated by the stomach during an attack of indigestion remains the seat of the local lesion leading to the refusal of food after the dyspepsia has been relieved (Morel). In cases of insufficient food supply or of want of food accompanied by brain symptoms, such as vertigo, delirium or mania the brain is highly vascular, and fluid is espoused between its membranes and into the ventricles (Rouilly). Organic disease of the brain is seldom found in suicides by refusal of food, it has been noted in two cases (Soquiroz). It occurs after prolonged abstinence from nourishment in General Paralysis of the Insane (Warrington, Luke).

Pernicious of the sense of taste leads to illusions (Winstow, Reinhard, Luke), it may be of poisoning (Burrow, Soquiroz, Illison), or of metallic tastes in the food (H. Luke), or of pins and needles being in the articles of diet, offeree (Soquiroz).
Bibliography
(Esquirol), and so to the refusal of food (Burrow, Esquirol, Morrison, Harrington Luke, Reinhard, Rayner). Illusions of taste occur especially at the beginning of an attack of insanity (Morrison), and are removed along with the gastric irritation causing them (Esquirol). There is probably always digestive derangement in cases suffering from a metallic taste in the mouth (H. Luke). Illusions of taste in the insane who refuse food are caused by a disordered state of the saliva (Reinhard). The dry and gurgled moisture of the mouth in some cases leads to the idea of earth being in the food or of the food being pig's meat- (Esquirol). Illusions of poison may arise from the physical state of the stomach (Esquirol, Rayner), or from any alimentary disorder (Davy). Olfactory illusions (Esquirol), hallucinations (Esquirol, Leup) occur in delirium. When hallucinations are present the organ of sense to which they refer should be minutely examined, e.g., the mouth in cases of refusal of food (Preissinger). The illusions arising from some local mischief which sympathetically affect the organ of sight- (Winslow). Illusions from the sub-diaphragmatic viscera lead to delusions which vary in character with the course of irritation (Russo). Delusions are in many cases secondary to disorder of the digestive system (Lawrence), for illusions from the prime vitals lead to delusions, and these in turn to refusal of food (Munro). Rayner holds that a patient may refuse food simply in obedience.
Biblilography.

obdience to an hallucination - as the result of an "hallucination of taste" - or to some illusion dependent on the physical condition of the stomach, or some other physical cause.

In cases of refusal of food. Delusions are in many instances secondary to disorder of the digestive organs - (Laurence) but often they are independent of it - even when having a direct reference to food (Maudsley). Delusions are increased in melancholies if digestion is out of order (Maudsley). The character of the delusions entertained by patients labouring under aitophobia varies. They may believe themselves to be unable to swallow food (Campbell, Harrington Lake), or to have an obstructed alimentary canal from some cause or other (Georget, Maudsley, Milton), or to have no need for food (Campbell), or that they would burst if any food is taken (Milton). They may doubt the apparent nature of the food offered them, or believe themselves warned not to take food (Harrington Lake). Delusions of suspicion are common (Milton), and the most frequent (H. Lake) of all delusions is that the food is poisoned or is poison (Georget, Burrows, Squirel, Milton, Campbell, Harrington Lake, Morel, Maudsley, Hammond, Milton). Some think that they are just on the point of death and, therefore, need no food - others, that they are dead and don't require to eat (Maudsley). One class of cases
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cases labour under exaltation (Maudsley) and believe they do not require food to live (Campbell). Another class is depressed. Of this group, some refuse food on account of religious delusions (George, Campbell); others with the intention of martyring the body (George); others think they are unworthy to live because of crimes (George, Seager, Maudsley) and others because they do not do enough work (Maudsley). Some starve themselves to avoid dishonour (Seager), others not to compromise their friends (Seager) and others because they believe themselves unable to pay for any food (Maudsley, Blumston). A final group consists of cases absorbed by a solitary delusion, the individuals so possessed exhibiting a complete indifference to all their surroundings (Burrows).

With regard to the form of mental disease in relation to the refusal of food it is stated that refusal is not common in acute mania and if present, is of short duration (Maudsley) and it also has been said that it occurs especially in acute delusional mania as a symptom associated with gastric disorder (Bonolty). Acutely maniacal patients may require artificial feeding in order to ward off the dangerous exhaustion which would otherwise be developed (Lawrence). Moreover it is well to remember that mania itself may be caused by abstinence, or by an insufficient supply of food (Bonolty).

Sitophobia
Bibliography.

Schizophrenia frequently occurs in hypochondriacal (Morel) and melancholic insanity (Morel, Maudsley) and is then often very persistent (Maudsley). By far the greater proportion of those who refuse food are melancholics, but not exclusively so (Lawrence). Of these melancholics some are cases suffering from sluggish mentality (Maudsley) and others are labouring under stupor (Lawrence). Broadly observed, most melancholics have often oblique displacement of the color.

With reference to other forms of mental disease it may be said that Central Paralysis has only been distinguished in writings made in connection with refusal of food by the occasional occurrence of total inability on the part of the patient to swallow anything (Lawrence) and by the organic lesions of the brain which always exist in that disease (Harrington Luke). Some cases of refusal are actually demonstrable and those patients may forcibly resist food (Lawrence). Finally the Idiocy and Imbecility may exhibit instances of refusal of food (Harrington Luke).

Certain other conditions affecting this symptom in insanity have been observed. Many of those submitting themselves to abstinence from food are actuated by a suicidal determination (Burrow, Bondly, Morrison, Wm. Low, Harrington Luke, Pauph, Balston). Their purpose in refusal will be rarely
Bibliography

rarely confessed (Harrington Luke). On the other hand Crichton complained that in his time cases of asphyxia were too indiscriminately ascribed to the wish to destroy life. But among those who really attempt self-destruction in this means are melancholics who wish to escape life and its torments (Squier), and many of those who hear voices warning them not to take food (H. Luke).

Some patients in a wild delirium of mania refuse food (Squier, Spitzka); it may be from mere inattention to the calls of nature (Maudsley). But in other cases delirium is not the efficient cause but the effect of asphyxia, the consequence of an insufficient supply or absolute want of food (Crichton).

Sedation may be a cause of the refusal of food (Harrington Luke, Lucy), especially in melancholia (Lawrence).

Many refuse to take sustenance because from excessive and insane obstinacy they will not return their food (Lawrence, Maudsley, Gardner, Savage). Others do it merely from a fantastic spirit of opposition (Squier). At times it is only due to caprice (Burrows, Mortel, Lawrence), and in women is often only hysterical (Harrington, Rayner, Hammond).

Crichton says that it is very probable that refusal of food may be less difficult to overcome among the poor.
Bibliography.

The poor than among the rich and thin explains in a somewhat obscure passage the reasons for this. The temptation of good food he asserts is less easily resisted by the poor and he believes that no pains have been spared to overcome their repugnance and to avoid resorting to force when the symptom is exhibited by them.

The duration of the refusal of food in the insane has been stated to be 4, 7 to 15 days in periodical insanity (Vielé) and 18 days (Bouillot) and 15 to 20 days (Huseland) in forms of mental disease not specified, and even nearly 2 years in one fatal case of delusional insanity (Sheppard). It may vary from days to weeks (Georget) and it often varies directly with the state of the stomach (Bouillot). Refusal seldom extends to more than several days in cases of simple mania, but if they are actuated by a delusional or suicidal impulse it may extend to an alarming length of time.

In melancholia it is more persistent than in mania (Lonely).

The prognosis in cases of atrophobia has been much discussed. Refusal of food is said to be a grave but not an absolutely incurable symptom, because it depends on many different states (Morel). Harrison Lake believes that refusal seldom endangers life. The opponents of forced feeding...
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Feeding hold that almost all cases end fatally (Aron). There is no doubt that the physical condition of the invalid affects the result; the patients are often in a hopeless state of which one of the mere symptoms is an utter disinclination for food (Aron). Very emaciated patients and those suffering from any severe bodily disorder die rapidly (Sutherland). The form of mental disease, except in cases of general paralysis of the insane, has been recently asserted to have no influence upon the prognosis (Sutherland). On the other hand it has been observed for a long time that maniacs with delusions about having to expiate their sins, or who refuse food because of a fear of sinning against God or of compromising their honour may be obdurate to an alarming extent (Squierol). And in hysterical, epileptic and hypochondriacal cases the prognosis is grave. If hypochondriacs become excited the situation is still more grave (Morel). If the removal of melancholia is overcome their depression becomes less marked (Squierol). Age has no influence on the prognosis in hysteria (Sutherland). The prognosis is worse in men than in women (Sutherland). Basis of hysteria with delusions about food or about the power of taking it are the most frequent and most curable, and have seldom persistent delusions.
Bibliography.

delusions (Harrington Luke). When refusal of food depends on illusions of taste etc. it is in no way grave (Squier), indeed, the prognosis is favourable in cases suffering from the illusion of being poisoned because the removal of the alimentary disorder which is present cures the symptom (Morison). Those patients who hear voices warning them not to take food often become suicidal (H. Luke). Indeed, many of the insane labouring under delusions of suspicion often end by becoming suicidal (H. Luke). Alonomania with self-destructive tendencies are, if the aetiology is obstinate, alarming (Squier). The prognosis is good in all cases if the patient wishes to recover, but back if persistently suicidal tendencies are entertained (Sutherland). The prognosis of anilophobia is good in cases where there is only a disinclination for and not a distinct refusal of food, especially when it is dependent on some removable bodily cause (Sutherland). Phosphorised cases forcibly fed and treated for alimentary disorder have been speedily cured (Windso). The prognosis is bad when the bodily cause of anilophobia is inremovable, and, most unfavourable, in cases of general paralysis of the insane complicated with some severe bodily disorder (Sutherland). In cases of organic disease of certain parts of the brain, forced feeding may be useless, and death certain (Harrington Luke).
Bibliography.
(Harrington Juke), and indications of this cerebral disease such as lung disease preceding sialophobia (H. Juke), or the softening of the walls of the stomach co-existent with cerebral neuritis (Rothkansky) have an equally unfavorable influence on the prognosis, although the connection can be seldom established during life (Harrington Juke). Cases of refusal complicated with abscess of the stomach or paralysis of the esophagus etc. (Wilkes) are fatal (H. Juke); and the prognosis is bad in cases complicated with disease of the lungs acquired before or after refusal has set in (Ihordly). Sialophobia occurring as a symptom of brain lesion may aggravate the other symptoms already present and even render the progress of the cerebral disease more rapid (Ihordly).

The condition of the patient as to marriage and occupation has no influence on the prognosis (Sutkerland). Educated people adhere to their delusions more firmly than the uneducated (Rayner). If hysterical, epilptic and hyperchondriacal cases are complicated with hardness the already grave prognosis is made more serious still more grave (Hord). The prognosis is good in slight cases of sialophobia which are only felt once or so (Sutkerland, Rayner), it is bad when there is a persistent refusal of food (Sutkerland). Fasting, after four to five days duration...
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duration is most serious for washing rapidly sets in (Luyt). The prognosis is good when refusal occurs during a first attack of mental alienation; it is bad if refusal occurs during a second or a subsequent attack (Sutherland).

Refusal of food gives way to medical treatment of the bodily disorder causing it, and by the influence of persuasion (emotion). But medicine sometimes and reason often fails, and early feeding before exhaustion sets in is necessary. Exhaustion from want of food is the cause of many deaths in cases of delirium (campbell). Sheppard goes so far as to say that even prolonged feeding leads to death by exhaustion - the dietary he refers to is not specified. In refusal the prognosis is bad if the patient requires to be fed more than once, the recovery to mental health being less likely to occur in cases which have been fed a great number of times: it is good if the health and weight of the patient remains about the same, and bad if the patient loses flesh although fed daily, the tendency to death being very marked in such cases: and, finally, it is good if treatment by drugs and feeding is resorted to early, and bad if this is delayed (Sutherland).

The Treatment of the refusal of food in the insane deserves the utmost attention, advice and sagacity
sagacity on the part of the physician, give plenty of liquids for the patient will generally drink expeditiously and readily. Such is Pinel's advice. If the digestive and assimilative functions are weak, treat worm (Burrows, Davey, Morel), if diseases of the mouth and throat are present, treat them (Burrows, Morel). If illusions depending on the state of the stomach are present, treat the disordered alimentary system (Seguin, Morel), and if illusions and delusions of a suspicions cast, are expressed, treat the gastric dyspepsia, which is sure to be present (Morel). When there is a positive longing for food—a want of all inclination for it, give mild antimonials, vegetable tonics, Vitalin over the region of the stomach, and if the patient complains of pain in that organ upon pressure—the warm and slaked salt is the most successful treatment to adopt in cases connected with obvious ocular disarrangement (John Winslow). For more pronounced alimentary disorder, give emetics and cathartics (Morel), or whatever is the most-appropriate treatment secundum artem (Burrows, Seguin, Morel, Davey et). Thus if refusal of food is due to some disordered condition of the stomach, e.g. from alkalies, determine if there is any flatulence and pass a tube into the stomach for that virtue may be so disarranged as to make all desire for food lost, and, having done this, give
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give drugs to stimulate peristaltic action (Gardiner).
Dyspepsia is common in the insane and its removal by therapeutic and dieticc agents is an important and efficient means of cure of mental disease (Bucknell and Luke). Other diseases as well as alimentary may occur in patients who refuse food and these may cause or influence altophobia. If refusal depends on a congested or hyperaemic state of the brains employ local depletion behind the ears (Lovel) if it is a result of a febrile condition abate the fever (Lonely, Davy). In short, in most cases of refusal, removal of bodily disorder is the first indication to be met, before food will be taken by the patient (Lonely).

Much difficulty will often be experienced in inducing cases of altophobia to take food (George). If the refusal is merely whimsical, or, if it is purely delusional e.g., of poisoning, exhortation and advice will generally suffice (Burrow). Repugnance to food in cases of delusion about food can usually be met by persuasion, and cases of illusion about food require as a rule only attention to the dyspeptic present, and some caperly (Barrington Luke, Hammond).

In the question of forced alimentation in cases of insane refusal of food, experts have always entertained widely divergent opinions. Lonely solicits his readers to give anything rather than
Bibliography

The straight waistcoat and the gag, while Blinot
believes that in many instances "stomach-pump
feeding is a capital thing." Sir William Ellis
treated nearly all cases of refusal of food as a
type of invalidism in which the athrophobia was a
symptom of a disordered body, that impaired vital
power and of a tendency to death. Connolly
says that forcible feeding should not be resorted
to in all cases without regard to its cause or
which the symptom depends. Instrumental means
may not be required in more than six out of 50
cases of refusal. It is true that some few purely
delusional cases require compulsion, but the majority
of cases, such as those with slight bodily disorder
and those in whom advanced marasmus declares
the approach of death from chronic and complicated
disease, ought not to be forced to eat. In the one
class the bodily disorder or receiving medical attention
gives way and the symptom along with it; in the
other, force would be the last thing thought of in a
general hospital, but the first and only thing
thought of in an asylum. Moreover, some patients
refuse food at the approach of any paroxysms,
some from fear of poison, some from dread of
exposure, and others from a belief that they
have received an order to abstain from it,
and in all these cases force can but increase
the patient's
Bibliography.

the patient's distress, although persuasion and
patience will often overcome the difficulty. But
the question of forcing an unwilling person to take
food when his continued obstinacy in refusing it
threatens life is not one to be summarily
disposed of. No physician, whatever his
imagination may be as to the uselessness of attempting
to prolong existence in such a case, can see death
positively approaching without a strong impulse to
try measures, in the absence of others, in which he
has small reliance. In the worst of these cases
the circumstances required for forming an unerring
judgment are incomplete until the physical
condition of the patient is revealed after death;
and for this contingency it would be more than
error to wait. The distinction of the cases in which
food administered by force may preserve life
from those in which forcible means are both dangerous
in the execution and hurtful in the effect can be
but imperfectly aided by mere description.

Notwithstanding Goddard's teaching the consensus
of medical opinion is that if medicine and persuasion
fail, obstinate refusal must be met by artificial
feeding (Campbell, Sheppard, Guiclain, Hammond,
Blenkin, Spitzka). It ought to be done early
(Campbell), say in some 4 to 5 days (Guiclain), to
prevent exhaustion (Campbell) and marasmus (Guiclain).

In patients
Bibliography.

In patients who labor under the delusion of being poisoned, first by persuasion, but failing it use force (Burrows). According to Winslow, in hysterical cases combine artificial alimentation with appropriate gastric remedies; but according to Harrison, forced feeding is almost never necessary in cases of dyspepsia and may add pain to the sufferer, while Davy recommends that force should be only used if there is no gastric disorder or constitutional disturbance. In cases of special organic disorder, e.g., of the brain or bowel, feed the patient even against all hope (Harrison, Luke). Cases of refusal due neither to hyperaemia of the brain nor to disease of the digestive organs require to be fed (Greisinger).

In most cases of delusion, especially in acute mania, the removal of the bodily disorder is the first indication before food will be taken by the patient (lonely). Acute maniacs who will not eat require to be fed by force, almost from the first, because of the risk of subsequent exhaustion (Lawrence, Maudsley, Bucknell and Luke, Hammond), and the downward tendency to dementia (Maudsley). Cases of acute dementia and cases of melancholic stupor may require the pump (Lawrence). It is a mistake to continue feeding hysterical cases if they are getting better. The acquired habit of being fed may often unnecessarily prolong artificial alimentation.
Bibliography, alimentation (Savage). In idiots and imbeciles feeding by the spoon is generally enough, but if it fails, employ the pump (Harrington Lake); and in paralysed will want of power in the oesophagus it, simply use a tube (Welkes, Harrington Lake).

When having recourse to artificial feeding it is essential to vary the aliment employed (Harrington Lake), by giving such things as milk, beef-tea, eggs, soup, salt, pepesin (Breisinger) and lime-juice (Harrington).

It is said by some authorities that various complications, such as gangrene of the lungs, frequently arise from the use of the stomach-pump and its use in many instances determine a fatal termination (usually). Others hold that the pump, in the hands of medical men, is not dangerous, and that gangrene of the lungs when it is present is as a rule due to other causes (Yellowles, Boston). Gurney have been passed in the habit of violently forcing open the jaws by any other means than an expanding gag (Skitzka), but surely such structures refer to methods beyond the ken of medical treatment.

Reposil of food in the mouth has been treated by several other means in addition to those already mentioned. Rayner believes that rest in bed is one of the most potent elements of success in the treatment of the early stages of tetanus. Williams had two cases of melanorrhoea with stupor and refusal.
Bibliography.

and refusal of food as symptoms, which yielded at once to the use of a 40-celled Stöhrer's battery, and after a few daily applications both patients recovered. And Huggard hypnotized a lady and induced her to take food when in this condition, and continued this plan until she became fairly strong.

The Cause or Causes of anaphylaxis have already been incidentally recorded with considerable attention in detail, and, now, need only be mentioned in relation to the etiology of the affection. Refusal of food depends on many different- and distinct- causes (Brock). Patients who refuse may be in a hopeless condition, and, therefore, cannot eat (always), for in the insane, as in the sane, anaphylaxis may be only one of the symptoms of decline, of impaired vital power and of a tendency to death (Ellis, Leccey); and, accordingly, it is found that the conditions, in which such an affection as gangrene of the lungs occurs, are just those conditions in which artificial alimentation is necessary (Yellowlees). A febrile state may induce refusal (Davies). Some hold that a faulty condition of the digestive organs and secretions is the immediate source of the symptom (Geogheg., Ellis). Most authorities express the opinion that some disorder of the digestive
Bibliography.

digestive functions may be a cause of the refusal of food (Esquirol, Davy, Harrington Luke, Morel, Breuninger, etc.). Refusal often depends on gastric disorder (Esquirol, Davy); it may be due to simple dyspepsia (Harrington Luke); or to an alkaline state of the stomach with flatulent distension (Gardner), or to the accumulation of food in the stomach (Cuisinier), or to gastric irritation, or to a morbid condition of the vagus (Cuisinier). It may be caused by organic disease of the digestive organs (Lawrence). If refusal of food has originated in some alimentary disorder which is eventually cured, and in which, nevertheless, still continues, then, the brain has probably become the seat of a local lesion (Morel). The brain may become affected by the sympathetic action of the sub-diaphragmatic viscera upon it (Rufus). In the majority of cases refusal to eat is the result of some local mischief remote from the brain, and sympathetically affecting the organ of thought. Thus it is that in patients with dyspeptic disorder food is refused from a positive loathing for it (Mivard). But dyspepsia may arise from a congested or hyperemic state of the brain (Morel), or it may be due to some special organic disease of that organ (Harrington Luke).
Bibliography.

Illusions and misconceptions of the senses may cause an insane patient to refuse food (Mowinckel, Leup) such gustatory or olfactory "hallucinations" (Leup). Delirium may also be due either to secondary delusions, that is, those which originate in abnormal sensations, or, to primary non-physical delusions (Lawrence). Illusions set up by the torpid state of the primaire vision may lead to delusions, and these delusions to the refusal of food (Mowinckel). Thus illusions of taste may lead to delusions of being poisoned, and so to the rejection of alimenta (Burrows). Delusions, which do not appear in the cases recorded to have been obviously or in any way connected with some exciting physical cause, frequently occasion refusal of food (Burrows, Gmelin, Winslow, Campfield, Lawrence, Harrington, Luke, Morel, Leup). Violent refusal may be a mere example of a general suicidal tendency (Campbell). It is frequently a mark of expression of a suicidal purpose (Burrows, Squibb, Gmelin, Mowinckel, Winslow, H. Luke & I.); but, on the other hand, alimentists are said to be too apt to ascribe all cases of refusal to a desire on the part of the patient to take away his own life (Gmelin). Delirium may also be due to an obstinate spirit of opposition (Lawrence, Kinslain); or to whimsical caprices (Burrows, Morel), or to hysteric

hysteria.
Bibliography.

Hysteria (Newington, Hammond), or to stupidity and mental inactivity (Tuke), or to a state of complete stupor (Lyns). Refusal of food in maniacs may be due to a wild delirium in which the patient has neither a thought of their existence nor wants, and are insensible to the calls of nature (Esquirol, Maudsley), or, it may be, to delusions of suspicion or, to delusions of an excited character (Maudsley). Refusal occurs especially at the beginning of an attack, or at the commencement of a paroxysm of mania (Esmont). In melancholies, if the disease is acute, aphasia may be occasioned by great mental depression, or by the intense concentration of thought on one subject to the neglect of all (Lawrence); or, in less acute cases, it may be due to delusions, or to a morbid perseverance resistive humour, or to a general sluggishness of nutrition and want of appetite (Maudsley). The utter stupidity and helplessness of idiots (Harrington Tuke), and acute dements (Lawrence), and the paralysis of deglutition in general paralytics (Harrington Tuke) may lead to a kind of refusal of food in the insane.
II Original Observations

1. Preliminary Notes.

The late Dr. Boyd pointed out (Vital Statistics, Journal of Mental Science. N° 10, p. 496) that although it has been admitted for a long time that the refusal of food in insanity is one of the most distressing symptoms of cerebral disorder, it is surprising to find that, notwithstanding the acknowledged prominence of the symptom, few observations have been recorded either of its frequency or of its probable causes. The object of the present paper is to diminish this important defect by furnishing statistics, compiled from cases treated in the Royal Edinburgh Asylum for the Insane, which may help to replace the vague generalities hitherto current, to give some degree of precision and definiteness to the received ideas upon the subject, and, if possible, to add a little to the etiology of the symptom. It is true that dogmatic conclusions cannot well be drawn from the number of patients examined; nevertheless, the inferences arrived at are based upon positive numerical results and are not mere expressions of opinion.
Observations.

The method of investigation followed was that of making selected combinations of those circumstances which a priori appeared to be those which might have a causal or a significant relation to the phenomena of silicophonia, drawing conclusions from those associations, and, verifying or refuting these conclusions by means of ascertained data. Facts which cropped up during the examination were attended to if they seemed to have any possible connection with the refusal of food provided their relations could be determined. In some things germane to the inquiry—such as heredity—nothing was attempted because of the difficulties experienced in a city hospital in acquiring the needful information. The hypothesis finally formulated was derived from a study of the data in their relations to their own component parts, in their relations to each other, and in their relations to the refusal of food generally. Their relations to insanity generally and to the general statistics of sanity could not be determined for most of the influential circumstances but, if possible, they were made out whenever advisable and practicable. Unfortunately the Returns of the Registrar General of Scotland were of little use in connection with the comparative
Observations.

The comparative prevalence of many diseases e.g. alimentary disorders, in cases of refusal of food to large institutional population of the country. For his returns refer to mortuary statistics whereas the majority of affections influencing a patient's sense of well-being are only tabulated in clinical statistics and are seldom a direct cause of death.

The percentages drawn from the different data vary much in relative value. In some cases conclusions of considerable importance are established in which a second equal number of instances might give a different average. Under these circumstances only those results which appear to be of more or less service are stated while non-important and doubtful ones are omitted. Furthermore the figures have not been corrected for errors in observation because, as Dr. King has shown (Encyclopedia of Anatomy and Physiology, article Statistics), in fact which may be produced by a multiplicity of causes correction for possible error is to all intents and purposes inapplicable. Neither was it found feasible to compare the results obtained in Morningside with those of any other asylum for although the means of treatment are conducted in a certain way and not-way at each hospital, they vary much in different institutions. For various reasons no cases merely reported to have been fed by force elsewhere.
Observations

e elsewhere were accepted as genuine cases of refusal.

In this paper the term Refusal of Food in the insane has been taken to indicate that condition in which it is necessary to resort to forced alimentation by a spoon, pump, nasoesophagial tube or otherwise and exercised both moral and physical compulsion against the will and active resistance of the patient.

For it is difficult if not impossible to separate argumentative advice from moral suasion for a kind of conviction may be established by year, and it is almost unachieviable to ascertain which of those influences has operated as the resulting cause of the result - eventually obtained.

The application of the pumps or some equivalent for it is in lunaticas under treatment the only sure sign of the insane refusal of food.

Of course artificial alimentation may be adopted at times when advice would suffice but in a quinquennial where feeding is ordered to be refused as a last extremity before the patient seriously injures himself by his folly, the same routine and the same officials directing affairs make the results drawn from that institution fairly reliable.

It will be observed that the above temporary definition does not refer to alimentation of a very transient nature extending to some such periods as 24 hours, or to cases of mere loss of appetites, or to the casual refusal of meals. Nor is the definition
Observations

definition intended to include patients who do not eat - because they want the sense or power to exercise prehension but take food when it is placed in their mouths, nor to invalids in whom paralysis or some organic disease prevents the inception of food by the ordinary means. Nor does it admit cases of the persistent refusal of food by some part of the alimentary system for this is mostly medical and not psychological. In all these special cases not comprehended by the term refusal of food in the insane the immediate administration of food may be of slight import; or it may be possible to give an abundant and varied supply by putting it to the patient's lips, or the sufferer may be willing to take food if he could and the danger to be apprehended altogether arises from a seriously morbid condition of the digestive organs.

The classification of mental disease adopted in relation to the following statistics is an elementary clinical one, without reference to somewhat doubtfull psychological refinements, and consists in assigning each case to one of the universally acknowledged types viz. Mania, Melancholia, General Paralysis, Dementia and Idiocy.
Observations

2. Statistics.

Average of Refusals — Out of 1557 cases treated in the Royal Edinburgh Asylum for the Insane, 100 violently refused food and required forced alimentation, that is to say 6.42 per cent. of the cases had occasion to be fed by artificial means.

Relation of Form of Mental Disease in Cases of Sifophoria to Form of Mental Disease in Insanity Generally — (a) Out of 557 melancholics 62 refused food, i.e. 11.41 per cent. or 4.7 per cent. more than the percentage of cases of refusal of food in the total cases examined. Out of 862 maniacs, 31 refused food, i.e. 3.6 per cent., or almost 23/4 per cent. more than the general percentage of refusals in the total cases examined, and about 7½ per cent. less than the percentage of melancholics having sifophoria. This result confirms an opinion expressed by Maudsley. Out of 112 general paralytics 6 refused food, i.e. 5.3 per cent. or 1 per cent. less than the general percentage; 53/4 per cent. less than the percentage of melancholics and 13/4 per cent. more than the percentage of maniacs labouring under sifophoria.
Observations.

Out of 22 Imbeciles examined I refused food in the course of his illness. So that, the highest percentage of refusals of food occurred in cases of melancholia and then in order in general paralysis and mania. In melancholia alone was the prevalence of the symptom about that of the general percentage.

(2) Out of 2377 cases admitted into the Royal Edinburgh Asylum between 1870 and 1880, 36 per cent. were classified as Melancholia, and 8.5 per cent. as Mania (Melman). Now as the percentage of melancholies refusing food in the 1557 cases examined for melancholia was 11 and in the 862 maniacs 3.6, it will be seen that while melancholia was a much less common form of mental disease than mania in the cases admitted, refusal of food in the cases examined was a much more common symptom of melancholia than of mania.

Relations of Age to Melancholia in Cases of Refusal.

The greatest number of cases refusing food occurred between forty and fifty years of age. Below the age of twenty, 1 refused food; from twenty to thirty 13; from thirty to forty 21; from forty to fifty 28; from fifty to sixty 19; from sixty to seventy 10; from seventy to eighty 4; and above eighty, one case refused food.
Observations

But these numbers are absolute.

Relation of Ages of Cases of Sifophonia to Ages of Cases Examined — The percentage of refusals taken in connection with the percentage of cases examined is greatest between the ages of 50 and 60. In other words refusal of good was a more frequent symptom of insanity at the beginning of decline of life than at any other period. Next in frequency was the important period in life embraced by the ages of 40 to 50; whereas the true when the insane least frequently refused good was between 20 and 30 i.e. in the period of greatest vital strength and activity.

Relation of Ages of Cases of Sifophonia to Ages of Cases Admitted — When the cases refusing good were compared with cases admitted at various ages it appears that below forty the percentage of admissions is above the percentage of the refusals but on the other hand the percentage of the refusals above forty is higher than the percentage of the admissions i.e. refusal of good was more common after than before forty whereas the majority of admissions in insanity were below the age of forty. Below forty the percentage of admissions is 17 in excess of the percentage of refusals; above forty the percentage of refusals is 14 in excess of the admissions.
Observations

Relations of Ages of Cases of Insanity to Ages of Admission to Insanity Generally as given by Authors—The facts already detailed are more especially emphasized when the ages of cases of refusal of food are compared with those of admissions of large bodies of the insane (vide Bucknill and Lake p 75 and Boyd's Vital Statistics). The commonest age for insanity to occur according to most medical men who have been able to get data concerning the population of a district with the number of cases of insanity is between twenty and thirty i.e. the period when, according to the foregoing percentages, food is least refused. The statistics of Boyd and of Bucknill and Lake make it appear least refusal of food occurs—between 40 and 50, then 50 to 60, 60 to 70, 30 to 40 and 20 to 30 in that order.

Relations of Ages of Cases of Delirium Tremens to Forms of Mental Disease in Cases of Refusal—In the cases of melancholia examined the greatest number of refusals occurred between 40 and 50, then 50 to 60, 30 to 40, 20 to 30 and 60 to 80. In mania the greatest percentage occurred between 60 and 80, then 20 to 40, 40 to 60 and 50 to 60. That is to say melancholia between 40 to 60 refused food more frequently than at any other time, and mania between 60 and 80 and 20 to 40. In Mr. Wilson's melancholia it occurred in middle life, in mania, at
Observations.

The extremes of adult life. Twice as many maniacs refused food between 20 and 30 as melanchotics, an equal number were affected in both forms of mental disease between 30 and 40, about twice as many melanchotics as maniacs exhibited the symptom between 40 and 50, four to six times as many melanchotics as maniacs between 50 and 60 and over five times as many maniacs refused food as melanchotics between 60 and 80. The number of cases of general paralysis examined was too few for reliable information to be obtained from combination of data.

Relations of Ages of Cases of Silicophthisis and Forms of Disease in Cases of Refusal to Ages and Forms of Mental Disease in Insanity Generally. — According to Bleuler (Clinical Lectures on Mental Diseases) cases of melancholia are most prevalent between the ages of 35 and 40. Refusal according to the above statistics is most frequent between 40 and 50. According to Bleuler mania is commonest between 20 and 25 and again between 35 and 40. The percentage of cases of mania refusing food between 20 and 30 was 19, i.e. twice that in melancholia, and higher still at any other period in which mania occurs except between 60 and 80. Therefore refusal was commonest at the first of the commonest periods of the onset of mania with the single exception mentioned. Bleuler makes 40 to 45 the most frequent period of life generally.
Observations.

General paralysis to occur. Now in cases of refusal of food it has been found that 30 to 40 is the period when the symptom is most common.

When Boyd's figures expressing the prevalence of melancholia at certain ages are compared with those representing the occurrence of sylphoria at certain ages in melancholia the relative frequency of this form of mental disease is found — unlike Glemcm's data — to correspond exactly with that of the manifestation of refusal of food. Thus the greatest number of admissions and the greatest number of refusals occurred between the ages of 40 and 50. But it might well be mentioned that the percentage of admissions in Boyd's cases compared with that of the cases of refusal above stated correspond more closely in the figures dealing with melancholia than in those affecting mania. Further according to his tables it would appear that in WMC melancholia and mania the percentage of cases of refusal of food is greater than the percentage of admissions between the ages of 40 and 60.

Relations of Sex to Sylphoria in Cases Examined for Refusal of Food — Out of 839 females examined for refusal of food 59 were 0.7 per cent. had sylphoria. Out of 718 males 41 were 5.7 per cent. refused food. Sylphoria was therefore 1.3 per cent. higher in women than in men — a difference not

true.
Observations

in truth, not very remarkable.

Relation of Sex to Form of Mental Disease in Cases of Silicophonia. — About 8 per cent. more female maniacs than female melancholics refused food, and about 8 per cent. more male melancholics than male maniacs refused food. In fact, the relations were reversed within the sexes.

Relation of Sex and Form of Mental Disease, in Cases of Silicophonia. — Sex and Form of Disease, in the cases examined for Refusal of Food — The percentage of female melancholics who refused food for the total cases examined was practically the same as that of male melancholics, but of anything a rather greater number of female maniacs of male maniacs on the total cases examined refused food. About 5 1/2 per cent. more male melancholics than male general paralytics and 5 per cent. more female melancholics than female general paralytics refused food. About 2 1/2 per cent. more male general paralytics than male maniacs had cphorbia. Therefore the relations are to all intents and purposes the same when compared with the total cases examined as when compared with the sexes taken separately.

Relation of Sex to Age in Cases of Silicophonia. — Below twenty years of age 3 out of 41 males and 1 out of 59 females refused food. Between twenty and thirty the percentages of cases of silicophonia were 12.
Observations

For males and 13 for females; between thirty and forty the refusals were 12 per cent for males and 20 per cent for females; between forty and fifty 22 per cent for males and 32 per cent for females; between fifty and sixty 19.5 per cent for males and 18 per cent for females.

Relation of Sex and Age in Cases of Silphoria —

Second age in total cases examined for refusal — when these comparisons are worked out it appears that there is a large increase in actual percentage of some 12 per cent in cases of refusal of food in females when they get between forty and fifty years of age i.e., at the period of the menopause. But the period of puberty in them does not materially affect the symptom. On the one hand in the male case while age makes no marked difference in the percentage of refusals between thirty and sixty yet there is a slight tendency to an increase in the ratio of refusals with the advance of years i.e., with the decline of the vital functions. It is moreover worthy of remark that after the climacteric period in women the percentage of cases of refusal of food is almost the same as that in the case of the opposite sex.

Relation of Sex, Form of Mental Disease and Age in Cases of Silphoria — The highest percentage of refusals in male melancholics occurred between the ages
Observations

The ages of fifty and sixty; 20 per cent out of 40 male melancholics were between fifty and sixty. And the highest percentage of female melancholics was between forty and fifty; 25 per cent out of 60 cases were between forty and fifty. In other words the greatest number of refusals of food appear to have accompanied sexual or bodily decline in melancholics. During forty to sixty no male maniac refused food. But 12.5 per cent out of 32 male maniacs refusing food occurred between twenty and forty and 12.5 per cent between sixty and seventy. The largest percentage of female maniacs refusing food occurred between twenty and fifty i.e. during sexual activity and disorders. The relations of general paralysis revealed nothing notable.

Relations of Number of Attack of Insanity in Cases of Schizophrenia to Number of Attack in Patients Admitted — Of those refusing food 67 per cent were cases of first attack, 23 per cent of second, 7 per cent of third and 2 per cent of more than three attacks, and one case was quiescent. Whereas the percentage of patients admitted showed that 5-9.5 per cent were cases of first-attack i.e. about 7½ less than the percentage of those who in first-attack refused food. 20 per cent were cases of second attack, i.e. about 3 per cent less than
Observations

The percentage of those refusing food was 6.6 per cent. The cases of mental attack were very little less (about 0.4) than the percentage of those refusing food. 9.7 per cent had had several attacks, or 7.7 per cent more than those refusing food, and 4.4 per cent were congenital. Therefore the frequency of the refusal of food varied inversely with the number of attacks. If the attack was a first one the frequency was great, but if one of many attacks the chance of food being refused was small.

Relation of Number of Mental Attacks to Form of Mental Disease in Cases of Refusal — The number of melancholic's refusing food was inversely proportional to the number of the attack of insanity. About three times as many melancholic refusals were cases of first attack as were cases of second attack, and five to six times as many of second as of first. The number of maniacs refusing food was like melancholics, but it was less extreme; inversely proportional to the number of the attack of insanity. Rather more than twice as many maniacs refusing food were cases of first attack of second attack, and rather more than twice as many cases of second as of third attack.

Taking the calculations based for each form of mental disease on the totals of each form it appeared that melancholics were more apt than maniacs...
Observations.

Maniacs to refuse food in their first attack and maniacs with many attacks were more apt to refuse food than melancholics suffering from many attacks. 11 per cent more melancholics with delirium occurred than maniacs refusing food in their first attack, and 8 per cent more maniacs than melancholics of several attacks refusing food.

No noteworthy relation appeared to exist between the age and number of attacks in delirium.

Relations of Sex to Number of Attack of Insanity in Cases of Delirium. Of the males refusing food 63 per cent were cases of first attack, 22 per cent of second attack, and 14.5 per cent of several attacks. Of the females refusing food 71 per cent were cases of first attack, 24 per cent of second attack, and 5 per cent of several attacks. A larger proportion of females than of males who refused food were cases of first attack, but about the same percentage of cases of second attack occurred. So that, a first attack of insanity in the female sex was more likely to have delirium for one of its symptoms, than in the male sex.

Relation of Refusal of Food to the Circumstances that a Patient was Suicidal by other means.
Observations

than or in addition to Refusal of Food — Of 100 cases of refusal 40 per cent., or rather less than half had during the course of their illness attempted suicide by other means than by the mere refusal of food.

Relations of Cases Miss Otherwise Suicidal in that Refusing Food to the Total Cases of Insanity Examined for Sibophobia minus the 100 who Refused Food — Of the total cases examined minus the 100 who refused food the percentage of patients who attempted suicide otherwise than by the refusal of food was 7.6.

The total percentage of the patients examined who by any means whatsoever attempted suicide was about 14. So that suicide by refusal of food occurred in little less than half of the total percentage of those attempting suicide. Now while rather less than half of all the suicidal cases were cases of refusal of food, rather less than half of the cases of refusal who attempted self-destruction were suicidal by other means than or in addition to suicide by sibophobia. Refusal of food was therefore a common symptom of a suicidal mind; and, further, patients who refused food were often determined suicides.

Relations of Cases Miss Otherwise Suicidal to Form of Mental Disease in (a) the Cases of Refusal
Observations

(1) The general statistics of melancholia as half
the melancholics and quarter of the maniacs who
refused food were not otherwise suicidal, but is
losing force as many of the melancholics as of the
maniacs who refused food were suicidials by their
means, man or in addition to refusal of food.

(2) Out of 729 of Berroth's cases of melancholia
there were 283 or about two-fifths (39 per cent)
who had actually attempted to commit suicide.
Now, half (51 per cent) of the melancholics who
had self-phobia had actually attempted suicide
by other means than by the mere refusal of food.

Relations of Attempts to Commit Suicide by Other
means than by: in addition to the Refusal of Food, to
the Sex of the Patient having Self-phobia - Out-
of 41 males and 59 females, 40 cases were so
disposed to be suicidal; 44 per cent of the males
and 37 per cent of the females were thus inclined to
self-destruction. In other words refusal of food in
the male had a esential - more constant - relation
to a desire for self-destruction than in the female.

Relations of Cases thus Otherwise Suicidal to the
Number of Attacks of Insanity in Cases of Refusal
- Out of 40 cases who were thus otherwise suicidal
62.5 per cent were cases of first-attack, 25-
per cent of second attacks and 12.5 per cent of
subsequent attacks. Therefore such cases were
very
Observations
very slightly less frequent—ni first attacks than
in second or subsequent—ones. In other words cases of
successive attacks of insanity if they exhibit d.
silphoria were also to some extent likely to manifest
a suicidal impulse by other means than or in
addition to the refusal of food. For in this
connection it might be remembered that of all
those refusing food 67 per cent—were cases of
first attack, 23 per cent—of second and 9
per cent—of more than three attacks and one case
was quintal.

Relation of Nature of Delusions Expressed to Cases of
Silphoria—Out of 100 cases of refusal of food
56 per cent—laboured under delusions connected with
their food or with their alimentary system and 10
per cent—under delusions of suspicion.

Relations of Nature of Delusions Expressed to Form of
Mental Disease in Cases of Silphoria—About
70 per cent—of the melancholics refusing food had
delusions with regard to their food or their alimentary
system, and of the per cent—of those melancholics
who had delusions of suspicion is added to this
it appears that 75 per cent—had their delusions
connected with their alimentary system or of suspicion.
32 per cent—of the maniacs refusing food had
delusions about their food or digestive system and
Observations

5-3 per cent. had either delusions about their food and alimentary organs or of suspicion without any definite relation to food-stuffs. In 22-5 per cent. of the maniacs without alimentophobia, no delusions were discovered. But in only 12-9 per cent. of the melancholic refusing food were no delusions discovered. So that while the majority of cases of alimentophobia had delusions, which in many instances may have been illusions, connected with food or the alimentary organs, this was especially the case in melancholic refusing food.

Relations of Nature of Delusions expressed to Age in Cases of Alimentophobia — When the ages of the patients who refused food were compared with the ages of those who expressed delusions while refusing food, it was found that cases were more apt to refuse food without having any delusion to account for this alimentophobia, below the age of forty. Above that age refusal was almost invariably accompanied by well marked delusions. These delusions most frequently had reference to food and the alimentary system or were of a suspicioius nature. Out of 55 cases of delusion and alimentophobia above forty years of age, 40 had delusions about their food and digestive organs, and 8, delusions of suspicion. This latter variety of delusion was relatively speaking more common in old age.
Observations.

Relation of Nature of Delusions expressed to Sex in Cases of Schizophrenia—Of the males refusing food 61 per cent had delusions relating to food or the alimentary system, and of the females 52 per cent had similar delusions. That is to say in those who refused food delusions about the alimentary system were 9 per cent more frequent in males than in females. Of the males refusing food 12 per cent had delusions of suspicion once, of the females 8 per cent had similar delusions i.e. 4 per cent more of the males than of the females had delusions of suspicion. Of the males refusing food rather less than 5 per cent had delusions of being accused of bodily disease. The females had a still less percentage. Of the males refusing food rather less than 5 per cent had delusions of having to die, and of the females only 8 per cent had like delusions, in other words more females than males refusing food had delusions of being about to die. Of the males refusing food 14 per cent, and of the females 22 per cent, expressed no delusions i.e. 7 per cent more females than males expressed no delusions.

Males, therefore, expressed delusions bearing on the alimentary system, delusions of suspicion and of bodily disease more frequently than females, whilst—
Observations.

whilst, the latter had delusions of being about to die or had no delusions whatever more frequently than males.

Relations of Nature of Delusions to cause being Suicidal by One means & by another in addition to Refusal of Food in (a) cases were Marvin Suicidal (b) in Total Cases of Schizophrenia - of 1140 cases of schizophrenia, who were suicidied by this means than by or in addition to the refusal of food, 50 per cent. were melancholics with delusions about the alimentary system and food, and of the maniacs 4 per cent. had similar delusions. In short, melancholics with delusions about the alimentary system were far more apt than maniacs with similar delusions to be suicidied by this means than by or in addition to the refusal of food. 5 per cent. were melancholics with delusions of suspicion, and 7.5 per cent. were maniacs with delusions of suspicion. 10 per cent. were melancholics with delusions of being about to die. 10 per cent. were melancholics who died not express delusions.

In comparing the total cases refusing food with those who attempted suicide by other means as well as by or in addition to the refusal of food, it was found that of the total cases refusing food 69 per cent. of the melancholics had delusions about the alimentary system i.e. 19 per cent. more
Observations

Mean the percentage of the melancholics who were otherwise suicidal. So that delusions about food and the alimentary system were less frequent in cases suicidal by other means than by or in addition to the refusal of food. Mean in all the melancholic cases taken together, and consequently, much less frequent than in those melancholics did not have delusions about food. So put it. Otherwise, those who were suicidal and had delusions about their alimentary system or their food were more apt to attempt suicide by refusing food than by any other means.

Of the total manic-depressives labouring under delirium 3.2 per cent had delusions about the alimentary system and of those otherwise suicidal 5.8 per cent were maniacs with delusions about the alimentary system 1.4, 27 per cent less. So that suicidal maniacs who had delusions about food were far more apt to attempt suicide by refusing food than by any other means.

Of the total melancholics refusing food almost 5 per cent had delusions of suspicion, and of those suicidal by other means than by or in addition to refusal of food 5 per cent had delusions of suspicion.

Of the total manic-depressives refusing food fully 22 per cent had delusions of suspicion and of those otherwise suicidal fully 7 per cent had delusions of suspicion.
Observations.

Of suspicion, so that more were 15 per cent. more maniacs who had delusions of suspicion than those who having delusions of suspicion were suicidal by their means than by or in addition to the refusal of food. Therefore it can be said that more maniacs with delusions of suspicion were more apt to be suicidal by the refusal of food than by any other way. Of the total melancholics refusing food 8 per cent. had delusions of being about to die and of those otherwise suicidal 10 per cent. had similar delusions so that more melancholics who had delusions of going to die were more apt to attempt suicide by their means than by or in addition to the refusal of food. Of the total maniacs who refused food 6 per cent. had the delusion of being about to die. But none of those who were otherwise suicidal as well as by or in addition to refusal of food had that delusion. Therefore the only way a delusion of being about to die led maniacs to attempt suicide was by the refusal of food. Of the total melancholics refusing food about 13 per cent. expressed no delusion, and of those suicidal by their means more by or in addition to melancholia 10 per cent. expressed no delusion – a not important difference. Of the total maniacs refusing food fully 12 per cent. expressed no delusion and of those expressing no delusion none were suicidal.
Observations

By Mr. means I mean by or in addition to refusal of food. This is a most significant relation. In those maniacs who expressed no delusions and who refused food the only manner in which suicide was attempted was by the refusal of food whereas almost the contrary was the case in melancholia.

Recapitulating these various relations it is seen that in cases which were otherwise suicidal by Mr. means in addition to or by refusal of food the tendency of melancholies and of maniacs who had delusions about the alimentary system and of maniacs with delusions of suspicion, or of having to die, or not expressing delusions was to attempt suicide by starvation or preference to other means. Melancholies with delusions of suspicion or nor expressing any delusions were equally prone to attain self-destruction by refusal of food and otherwise. Melancholies who believed themselves about to die were more apt to attempt suicide by Mr. means than merely by the refusal of food.

Relation of cases of Delirium or Maniacal suicidal death by or in addition to the refusal of food to the presence of functional or organic bodily disease in cases of refusal - 92 per cent of the cases thus either suicidal had some functional or organic bodily disease, thus leaving a very small percentage indeed of cases who had no obvious physical
Observations.

physical cause which might possibly lead to refusal of food and in whom the atrophobia could only be regarded as a suicidal impulse whether intentional or not. But of course in many of the patients with bodily disease self-destructive tendencies might also, or only be due to mental states. There is no absolute connection established between physical disease and suicidal desires, although it is easy to see how some lesions may indirectly be the cause of suicide.

Relation of Alimentary Disease to Atrophobia —

With reference to the occurrence of disease of the digestive system in cases of refusal of food it will hereafter require careful observation based on the clinical and pathological recognition of the exact kinds of alimentary disorder — such as abnormality of absorption, of peptic ulcer, of bile secretion, etc. — which may excite atrophobia in order to determine scientifically the precise alimentary defects which may occasion the symptom. In this paper these diseases are only referred to in a general way as alimentary disorders.

This explanation being promised it can now be stated that in 85 out of 100 cases of refusal of food alimentary disease was present beyond all doubt — and in so many as 79 out of these cases serious organic disease was probably absent.
Observations.

The percentage of cases with alimentary disease in the total cases examined was uniformly not accentuated and no statistical information upon the occurrence of these disorders in insanity seems to be included in psychological literature.

Relations of the Occurrence of Alimentary Disease to the Form of Mental Disorder in Cases of Scolophobia—About 87 per cent of the melancholics and about 84 per cent of the maniacs refusing food had alimentary disorder. In 90 per cent of insanity these were therefore a large proportion of the refusal cases affected with alimentary disease. The tendency for the maniacs to be slightly less troubled with it than the melancholics is so small as not to be significant.

Thus was only one general paralytic in whom alimentary disease was noted. He was in a very weak bodily condition and dying of phthisic pulmonary.

Relations of the Occurrence of Alimentary Disease to the Nature of the Delusions Expressed in Cases of Scolophobia—Out of 100 cases of refusal of food 57 had disease of the alimentary system and delusions connected with that system; 34 had alimentary disease but no delusions about the alimentary system; 10 had multiple alimentary disease and delusions connected with the alimentary system, and 5 had no alimentary disease, but had delusions connected with other systems.
Observations

with the alimentary system.

Out of the 100 cases of autophobia there were 15 cases without ascertained alimentary disorder. Of these 5 had delusions about their food or digestive tract - and 3 delusions of suspicion. So that in addition to the 85 per cent. in which alimentary disease was present 5 per cent. had delusions connected with the alimentary system. And in 3 out of 4 cases in which although food was refused and no delusions were expressed it was probable that alimentary disorder was present. Two being extremely reduced purpurial cases and one an emaciated phthisical patient.

Relations of Disease of the Haemo- poietic System to Sirophobia and to the Form of Mental Disease in Sirophobia - out of 100 cases of refusal of food 21 had some disease of the haemo poietic system. About 26 per cent. of the melancholics had disease of the haemo poietic system, and 16 per cent. of the maniacs. This kind of disorder was therefore a more frequent accompaniment of autophobia in melancholics than in maniacs.

No remarkable relation could be established between diseases of the circulatory system and refusal of food.

Relations of Disease of the Respiratory System to Sirophobia.
Observations.

Silphoria and of Tuberculosis Pulmonalis in cases of Refusal of Food to Tuberculosis in Insanity and in Sanity generally — out of 100 cases 21 had disease of the respiratory system. 10 of these 21 cases had phthisis pulmonalis or tuberculous consumption. When these data were compared with those given by Blunn (N.I. Journal of Mental Science, April 1863) it was observed that the percentage of phthisis in cases of refusal of food is almost 50 per cent. less than the percentage of phthisis pulmonalis in insanity generally and it is 10 per cent. less than the percentage of deaths from phthisis pulmonalis in sanity above twenty years of age (Quarterly Report of the Registrar General for Scotland). Hence phthisis pulmonalis was a much less frequent accompaniment in cases of refusal of food than it is in insanity generally and a less frequent accompaniment of silphoria than of insanity generally.

Duration of Insanity before Refusal of Food in cases of Silphoria — of the cases refusing food examined during the course of their illness 23 refused food during the first week of mental alienation, 21 during the first month exclusive of those already refused to, 12 during the second
Observations

10 during the third, 7 during the fourth, 4 during the fifth, and 3 during the sixth; 5 refused during the second six months, 5 during the second year, 3 during the third year, and the other cases occurred at intervals of more than a year between four and twenty-six years of illness. Refusal of food was therefore a more frequent symptom of the early than of the late stage of insanity.

Duration of Refusal of Food in Cases of Mental Disease in Cases of Sialophobia — The frequency of refusal in early mania was most remarkable. 45 per cent. of the cases of sialophobia in mania occurred during the first week of mental illness. In melancholia 77 per cent. of the cases of refusal occurred within the first three months of illness, 35 per cent. being during the second, third, and fourth months and 27 per cent. being during the first month. It also appeared to be commoner in the earlier than in the later stages of general paralysis.

Duration of the Refusal of Food in Cases of Sialophobia — The highest percentage of cases refusing food — 37 per cent. — had sialophobia for periods within one week. Including those 37 per cent., 73 per cent. of the cases of sialophobia refused food for periods none of them exceeding four.
Observations.

four weeks, and 12 per cent. between one and two months. Of the Maria one was regularly fed for a year and a half.

Duration of Refusal of Food in Form of Mental Disease in Cases of Siphophobia - Refusal of food was continued for shorter periods in mania and general paralysis than in melancholia. About 42 per cent. of the maniacs refused food for a period not exceeding one week, while only 29 per cent. of the melancholics who refused food did so only for a week. 90 per cent. of the maniacs refused food for a period not exceeding one month and of these 42 did not exceed a week. 53 per cent. of the melancholics refused food for a period of a month or less, 29 being under a week. Of the 10 per cent. of the maniacs who refused food for more than a month, none of them exceeded three months in the entire duration of their refusal of food. Whereas of the 47 per cent. of melancholics who refused food for a period exceeding a month 19 of the 47 refused food for a period exceeding three months and 8 of the 19 from six months to a year and a half. Almost all the general paralytics who refused food did so for less than a week and none for more than two weeks. The only melancholi
Observations

who refused food did so for less than a week.

Duration of refusal of food to the circumstance that
the cases were suicidal by other means than by or in
addition to the refusal of food, in cases of schizophrenia.
Of the cases there were suicidal 30 per cent. continued
their refusal for a period less than a week, 35 per cent.
between a week and a month, or including more for
one week, 65 per cent. of the cases refused food for
less than four weeks, 17 per cent. refused food
over one month and under three. Various individuals
refused food for periods ranging from three to
two months. So that there was a tendency for
such suicidal cases to be, on the whole, more prolonged
in their refusal of food than those who had not
multiform and aggravated suicidal tendencies.

Duration of refusal of food in relation to the form
of mental disease and the absence of associated
mental disorder in cases of schizophrenia — Of
the fifty patients refusing food in whom no
mental disease was distinctly observed, 9 cases,
— i.e., 5 maniacs, 2 melancholics, 1 general paralytic
and 1 inveteret — refused food for less than a month,
and 6 cases for various periods about a month, 3
being over three months. All these six cases
refusing food and not having serious digestive
disorder were melancholics.

Duration of refusal of food in relation to the nature of
the
Observations.

The delusions expressed in cases of Sicophobia -

The relation between the delusions expressed and the duration of the refusal of food were not important. The only indication obtained in this connection was that in cases which persisted for over three months there was an increased likelihood that the patient would express delusions either referring to the alimentary system or delusions of suspicion and that these cases were on that account not the most amenable to treatment.

Relation of Social Position of the Patients to Cases of Sicophobia - Out of 544 private and 1013 pauper patients examined there were 100 cases of refusal of food of whom 73 were private and 27 pauper patients, i.e. 13.4 per cent of the private patients and 2.6 per cent of the pauper patients refused food. This great difference of 10.3% in the percentage of refusals from the more influence of social position is of considerable importance.

Relations of the Form of Mental Disease and the Social Position of the Patients to Cases of Sicophobia - About three-quarters - 72.3% per cent - of the cases of melancholia refusing food were private patients and about four-fifths - 80.6 per cent - of the maniacs were private. The effect of the influence of social position

Observations

Position was therefore more marked in mania than in melancholia. The number of special paralyses requiring food were too few to furnish reliable data in this connection.

Relation of Mental or Physical Improvement in the Patient's Condition before the Occurrence of Silphobia. Food was recommended to be taken after distinct mental improvement - in 12 of the 100 cases, after bodily improvement - in 7 and after both mental and bodily in 16 cases. In 97 cases, improvement, either mental or bodily or both together, took place before food was again voluntarily taken.

Relations of Melancholy Slumber to the Symptom of Repetition of Food - 12 out of 62 melancholicins with silphobia laboured under melancholy slumber. Of these 9 were males and 3 females. In the majority were males. 2 cases occurred between twenty and thirty years of age, 3 between thirty and forty, 5 between 40 and 50, and 2 between fifty and sixty. Five cases were suicidal by means than by or in addition to the repetition of food. 7 had delusions about - the alimentary system or about food; 2, of suspicion; 1 of bodily disease, 1 of having to die, and 1 refused no delusion.
Observations

Delusion. 11 of the 12 cases had alimentary disorders, i.e. a higher rate than in refusal generally. One refused food for a week, 3 for two weeks, one for a month, 2 for two months, 1 for three months, 1 for four months, 2 for six months, one for seven months, and 1 for ten months. In short, the majority of cases of silophoboria accompanied by melancholic stupor were above a month's duration; whereas 73 per cent. of the total cases refusing food were of less than a month's duration. 8 of the silophoboria cases in stupor were private, and 4 were pauper cases. 14 out of the twelve cases of stupor received 2 were relieved, 2 remained under treatment, and 4 died, i.e., a third of the cases laboring under melancholic stupor and silophoboria died whereas only a quarter of the cases of refusal suffered altogether died.

Relations of Acute Maniacal Excitement to the Symptom of Refusal of Food - In 10 cases of the 12 of silophoboria there was acute delirious excitement accompanying the refusal of food. Of these, 2 had attempted suicide by other means as well as by or in presence of refusal of food, 6 had delusions about their food or alimentary euphemia, 9 had alimentary disorder and in one its presence or absence failed to be noted. 4 had other diseases, 4 had delusions of suspicion, 2 expressed no delusions, 1 had the delusion of having committed an unpardonable sin.
Observations

3 recovered, 2 remained under treatment and 4 died.

Relative of the Puerperal Statis to the Symptoms of Sitophobia—8 out of the 9 females who refused food were puerperal cases: i.e. 13.5% puerper.

Of these eight 3 were between twenty and thirty, 4 between thirty and forty and 1 above forty. Seven were cases of first and one a case of second attack.

4 were suicidal by other means than by or in addition to sitophobia. One had delusions about the alimentary system, one of identity, two of having to die, one of bodily disease and three expressed no delusions. 6 had alimentary disorder. Three refused food for one week, 2 for two weeks, 1 for a month, 2 for two months, and 1 for three months. One was privy aged 12 pauper. 4 refused was more frequent in private puerperal cases than in pauper. Three of the puerperal cases of sitophobia recovered, three were relieved, one was discharged not improved and one died.

Causes of Death in Cases of Sitophobia—

Of the 25 cases refusing food who died 22 had alimentary disease as the cause or one of the causes of death, 11 had cerebral disease, 10 respiratory, 9 had exhaustion as their cause or one of their causes, 6 had urinary disease, 5 hematopathic, 6 circulatory.
Observations

3 reproductive disease, 3 acute maniacal excitement, 2, senile decay, and 1 a conjunctiv attack. It is evident from this analysis that in some of the cases more than one bodily system was affected with the disease. The forms of alimentary disease present were 2 cases of diarrhea, 2 of peritonitis, 1 of pyloritis, 1 of enteritis, 1 of fatty liver, and 1 of ulceration of the pharynx. The forms of cerebral disease present were 2 cases in which there was softening of the brain and 2 of atrophy of the brain. 2 were cases of apoplexy, 2 exhibited the ordinary non-specific lesion common in general paralysis and 1 was a case of cerebral tumour. The forms of respiratory disease present were 4 cases of pneumonia, 3 of phthisis and only 1 of gangrene of the lungs. This last patient had softening of the brain and when alive laboured under melancholic stupor combined with an extremely low state of the constitution during the whole course of his brief illness. There was, therefore, no direct relation between gangrene of the lungs and removal of the heart. Two fatal cases of aetophthisia had ovarian disease, one had heart disease (aorta) and one diabetes. Seven of the 9 cases in which death was ascribed to being partly or altogether due to exhaustion were complicated with either more or less grave affections. Six of these had alimentary disease, 3 cerebral, 3 respiratory, 2 urinary.
Observations

Hemiania and hemicrania, a hemiplegic disease and one laboured under acute maniacal excitement. Only one case of exhaustion attributed to persistent melancholia was not complicated with one or more diseases. Simple mania itself was therefore a rare cause of death.

Relation of the presence of melancholia to the result of the case.

I. Recoveries.

Relation of recovery in cases of melancholia to recovery in the total cases examined and to the percentage of recovery in the Royal Edinburgh Asylum for 18 years — out of 100 cases of referral of proof 30 were discharged recovered. The percentage of recoveries on the total cases examined for melancholia was 42.6 and the percentage of recoveries in the Royal Asylum for 18 years was 42.1 of the average number resident. Hence the refusal of proof in a hundred cases of melancholia implied that 12.5 per cent. loss of the cases would recover and was to that extent an unfavourable element in the prognosis.

Relation of recoveries to the form of mental disease present — in cases of melancholia and in cases of melancholia generally — An equal percentage, 52.2 — of melancholics and of maniacs recovered. The ratio of recovery is alarming in the case of melancholia for
Observations

Aston (A Clinical Lecture on Mental Disease) finds that in melancholia generally the percentage of recoveries is 5.4. In fact, refusal of food in melancholia determines or is determined by the same causes which determine non-recovery in more than 20 per cent of the average in that form of mental disease generally.

Relations of Ages in Cases of Delirium and in the Total Cases Examined to the Number of Recoveries.

The greatest number of recoveries for mental health in cases of delirium occurred between forty and fifty years of age. But, here, the greatest number of cases refusing food occurred between forty and fifty. The greatest number of admissions to the cases examined occurred between thirty and forty and the greatest number of recoveries in all the cases examined for refusal occurred between thirty and thirty, thirty and forty, and thirty and forty and fifty. The highest percentage of recoveries out of a hundred cases of refusal — 15 per cent — became lighter between forty and fifty. The highest percentage of those refusing food — 28 per cent — was between forty and fifty years of age. 24.4 per cent of the cases examined were between thirty and forty, and about 15 per cent of the recoveries in the cases examined occurred between twenty and thirty. Hence, while in all
Observations

all the cases examined the highest percentage of recoveries occurred at a different age from the highest percentage of the admissions, in the cases of refused the highest percentage of refusals and of recoveries occurred at the same age.

Relotions of Recoveries to Sex in Cases of Scleroderma and in all the cases treated in the R.E.A. for 19 years—more females than males recovered in cases of refusal of food, indeed even proportionately more of the recovered females in all the cases treated in the R.E.A. for 19 years. In the cases of scleroderma 13.5% per cent. more of the women than of the men recovered and in the R.E.A. for 19 years 4.8% per cent. more of the women admitted recovered than of the men admitted. Hence compared with the result of an attack of insanity an attack of refusal of food was in women not so serious. It occurred in the not very unfavourably disposed cases of mental alienation. Possibly scleroderma in females is at times induced by sexual peculiarities and occurs in ages especially affecting female susceptibilities.

Relotions of the Number of Attacks of Insanity to the Chance of Recovery in Cases of Scleroderma—The number of attacks of insanity in no way relation to the recoveries. A higher percentage—43.5% per cent.—of cases of second attacks recovered after refusal of food than of first attacks—25.5% per cent. The number
Observations.

Of recoveries in cases of severe attacks of insanity or in those of congenital disease were too small to furnish reliable data.

The effect of frequent attacks of silicophoria was not established. Out of 13 so affected 2 cases were eventually discharged recovered.

Relatives of the Number of Recoveries to the circumstance that the patients labouring under silicophoria had attempted suicide by more means than by or in addition to by refusal of food — the percentage of recoveries was not much affected. The presence of suicidal impulses of the nature referred to made little difference in decreasing the ratio of recovery of the patients — 2.5 per cent, less recovered who were otherwise suicidal than recovered of those simply refusing food.

Relatives of Recovery to Delusions Refused in Cases of Silicophoria — About a quarter of the patients refusing food and having delusions connected with the alimentary system recovered. Fully a quarter of those having delusions of suspicion recovered. And about two fifths of those expressing no delusion recovered.

Relatives of Recovery to the Presence of Ascertained Bodily Disease in Cases of Silicophoria and in Many Cases of Insanity — About 30 per cent of the patients refusing food and having alimentary disease.
Observations

disease recovered, i.e. 12.6 per cent. less than the total recoveries in the cases examined for aphasia. About 24 per cent. of the patients refusing food and having disease of the respiratory system recovered, i.e. 18.6 per cent. less than the percentage of recoveries in all the cases examined. But only 10 per cent. of the phthisic cases recovered from the symptom of aphasia in the total of the cases of phthisia refusing food. About 28 per cent. of the patients labouring under voluntary starvation and having haemopoeitic disease recovered.

Relation of Result of Case to Duration of Insanity in Cases of Etiophenia after Recovery from Aphasia. When the duration of insanity in patients who after refusing food began to again take it was over one and below three months 77 per cent. of the patients recovered.

Relation of Recovery Being the Result of the Case to the Social Position of the Patient. An almost equal percentage of private and of pauper cases of etiophenia recovered.

Relation of Recovery to Form of Mental Disease and Social Position of the Patient. The percentage of private melancholics who recovered, taken on the total of melancholics refusing food was 12 per cent. higher than that of pauper melancholics. The number of pauper maniacs who recovered was 42 per cent. higher than that of private maniacs.
Observations.

More private melancholics recovered than private maniacs — 11 per cent more. The chances of pauper maniacs recovering were 42 per cent greater than those of pauper melancholics. Private melancholics and pauper maniacs showed the highest rate of recovery. 35 per cent of private melancholics recovered 23 per cent of pauper melancholics. Pauper maniacs refusing food were twice as apt to recover as to die. 66 per cent of pauper maniacs recovered, and 24 per cent of private maniacs recovered. The percentages given under this heading are not based on current data.

II. Relief.

Number of Cases Relieved in Sylophoria Patients to
Number Relieved in Total Cases Examined and in
the Average Number Resident in the Royal Edinburgh
Asylum for 18 years — Of the hundred cases of
repose of food 20 were discharged relieved. The
percentage of those relieved on the total cases examined
for refusal was 16.7, and the percentage of those
relieved in the R.E.A. for 18 years was 16.3 of the
average numbers resident. Hence 3.5 per cent
more cases were relieved of those who refused food
than of the total patients treated.

Relation of Cases Relieved to the Form of Mental Disease
present — in cases of Sylophoria — 28.8 per cent of
the melancholics and 9.6 of the maniacs who refused
food.
Observations

Food was received in about 16 per cent, more melancholics than maniacs were received.

Relative of Ages in Cases of Sclerophoria and in the Total Cases Examined to the Number of Those Releved - of the cases of refusal which were relieved most were so discharged between thirty and forty and then between fifty and sixty years of age. In other words most cases of sclerophoria were discharged relieved neither at the decade when refusal of food occurred most nor at the time when insanity was most frequent.

Relative of Numbers discharged Related to Sex in Cases of Sclerophoria - fully 3.5 per cent more males were relieved than females, and compared with the number discharged relieved in insanity generally more cases of male and of female were so discharged in cases of sclerophoria.

Relative of Number of Attacks of Insanity to the Number Releved in Cases of Sclerophoria - of those refusing food 20.8 per cent were relieved in their first attack, and 13 per cent in their second so that almost 8 per cent more patients were relieved and so discharged in their first attack of insanity than were in their second.

Relative of Number of Cases discharged Related to the Number of Cases Suicidal by Other mean in addition to or by their mean alone by Refusal of Food and to the Number so discharged in the Total Cases of Sclerophoria - 27.5 per cent of more refusing food and being suicidal.

suicidal
Observations

suicidal by their means than by or in addition to refusal of food were relieved as 7.5 per cent. more than in the total cases refusing food.

Relations of Number of Cases Discharged Relieved to the Delusions expressed in Cases of Delirium. Of those having delusions about the alimentary system and refusing food 21 per cent. were relieved, and 26 per cent. of those not expressing delusions were relieved. Among those not expressing delusions were more apt to be relieved than the total cases of refusal were i.e. were still more apt to become relieved than those giving expression to delusions.

Relations of the Number Discharged Relieved to the Presence of Ascertained Bodily Disease in Cases of Delirium — 18.8 per cent. of the cases refusing food and having alimentary disease were discharged relieved. 14 per cent. of the cases refusing food and having disease of the respiratory system were relieved. Of those who had phthisis pulmonalis 30 per cent. of the cases of phthisis were relieved. 28.5 per cent. of the cases refusing food and having haemorrhagic disease were relieved. That is to say 8.5 per cent. more were so discharged than in the total cases of delirium.

Relations of Social Position of Patient to Number Discharged Relieved in Cases of Delirium — 23.2 per cent. of the private patients were discharged relieved
Observations.

and 11.2 per cent of the pauper. The number of pauper patients labouring under silicophonia received was less than half that of the private patients and little more than half of the total cases of refusal of food; discharged relieved.

The effect of frequent attacks of silicophonia was not determined: out of 13 cases so affected 3 were discharged relieved.

The relation between the number of patients discharged relieved and the form of mental disease and the social position in cases of silicophonia have not sufficient statistical basis to warrant their now being formulated. It may however be remarked that no pauper maniacs were discharged relieved, and that melancholics were often more discharged than maniacs.

III. Remained Under Treatment.

Relations of the Number of Patients Remaining under Treatment in Cases of Silicophonia to Those Remaining in the R.E.A. during 18 years of its existence — of the 100 cases who refused food 18 remained under treatment. During 18 years of the R.E.A. the number remaining under treatment was 13.2 per cent. It would, therefore, appear that cases who refused food were more apt to remain under treatment than cases of insanity in general.
Observations.

Relative of the Number of Patients Remaining under Treatment— in Cases of Schizophrenia and to the number remaining in the total cases treated in the R.E.A. during 18 years — 14.5 per cent. of the melancholics and 25.5 per cent. of the maniacs who refused good remained under treatment— so that more maniacs, comparatively speaking, remained under treatment—than melancholics or even more than in the total cases who refused good or died on the total cases cases treated in the R.E.A. during 18 years.

Relative of the Number of Patients Remaining under Treatment— to Ages in Cases of Schizophrenia—Patients who refused good if they were under forty years of age were more apt to remain under treatment than those who refused good when above forty. The highest percentage — 25 per cent. — of cases refusing good and remaining under treatment, taken on the total referrals at a given decade, occurred between the ages of twenty and thirty.

Relative of the Number of Patients— Remaining under Treatment— to the Sex of the Patients— in Cases of Schizophrenia compared with the cases treated in the R.E.A. during 18 years — 19.5 per cent. males and 16.9 per cent. females of the patients who refused good remained under treatment— i.e. rather more males than females— of the cases under treatment— during 18 years of the R.E.A.s history 14.1 per cent. of the males
Observations.

and 12.3 per cent of the females remained under treatment. The same relations between the sexes were preserved in 93.9% cases but the cases of refusal were more apt to remain under treatment than the total cases under treatment.

Relations of the Number Remaining under Treatment to the Number of Attacks of Insanity in Cases of Schizophrenia - 19.7% per cent of the cases who refused good in their first attack remained under treatment; and 21.7 per cent of those who refused it in their second attack. Cases of second attack were, therefore, in anything more likely to remain under treatment than cases of first attack. Because the relation hereby established leaves out of account all those predetermining influences on the prognosis of first and second attacks.

Relations of the Number Remaining under Treatment to the Tendency to be Suicidal by their own means. By or in addition to by refusal of Food - 15 per cent of the cases thus minority suicidal and refusing good remained under treatment; and 18 per cent of the total cases of refusal remained under treatment so that suicidal tendencies did not increase the chance of a patient becoming chronic.

Relations of the Delusions Expressed to the Number Remaining under Treatment - in cases of Schizophrenia - 19 per cent of those having delusions about the alimentary
Observations

Alimentary system and refusing food remained under treatment. 30 per cent. of those with delusions of suspicion remained under treatment. Relations of the Number remaining under treatment to the Presence of Acute or Early Bodily Disease in Case of Cataphobia - 17.6 per cent. of those laboring under alimentary disease and refusing food remained under treatment. 14.2 per cent. of those refusing food and having haemopoietic disease remained under treatment.

There was almost no difference observed in the relations of social position to the tendency to remain under treatment. 17.8 per cent. of the private and 18.6 per cent. of the pauper cases remained under treatment.

Those patients in whom the duration of insanity after recovery from cataphobia lasted over twelve months, for the most part, became chronic.

The effect of frequent attacks of refusal of food on the prognosis was not made out. Of 13 cases who had more than one attack of cataphobia 3 became chronic.

IV. Discharged, Mental Condition not Improved.

Of the 100 cases refusing food 5 were discharged without improvement. Of the 185.7 cases examined 5.7 per cent. were similarly discharged and of the cases treated in the R.S.A. during 18 years 165
Observations.

Evidence 10.1 per cent were so discharged. 6.4 per cent. of the melancholic refusing food were discharged not improved. 90.7 per cent. of the males refusing food were so discharged and 1 female. 2.3 per cent. of those with alimentary disease and refusing food were discharged not relieved. The other admissions were not worthy of remark.

V. Discharged, Mental Condition Unknown.

Two cases of melancholia were eventually discharged with their mental condition unknown at the date of their restoration to liberty. One was a male melancholic and the other a male maniac. The melancholic had had two attacks of melancholia.

VI. Deaths.

Relations of Deaths in Cases of Melancholia to Deaths in the Total Cases Examined and to the Percentage of Deaths in the Royal Edinburgh Asylum for 18 years — Of the 100 cases refusing food 25 died. Of the 1567 cases examined 12 per cent. died and the death rate on the average numbers resident in the R. E. A. for 18 years was 18.1 per cent. So that the death rate in those refusing food was 13 per cent. higher than for the total cases examined and 7 per cent. higher.
Observations.

They obtained for 18 years results in the R. E. A. Dept of good. Therefore, materially increased the death-rate in insanity: a quarter of the cases of silo-phobia died.

Relation of Deaths to Form of Mental Disease in Silo-phobia – 19 per cent. of the melancholics who refused food, and 29 per cent. of the maniacs refusing food died, i.e. 10 per cent. more maniacs than melancholics died.

Relation of Deaths to Age in Cases of Silo-phobia – Taking the percentage of those who died in each decade on the 100 cases of silo-phobia, and the percentage on the 25 who refusing food died, it was found that the death-rate of patients refusing food increased at a rate directly proportional to the age of the patient. It was lowest under thirty years of age and highest above sixty.

Relation of Deaths to Sex in Cases of Silo-phobia and in Insanity Generally – 21.1 per cent. of the males, and 27.1 per cent. of the females refusing food died. The percentage of deaths in the males treated during 18 years of the history of the Royal Edinburgh Asylum was 19.9 and of the females 16.3. So that in the cases treated during that period in the establishment referred to the death-rate in relation to the sexes was more favourable in
was lower in the female than in the male. But in cases of anorexia it was otherwise. Many more females than males died.

Relation of Death to Number of Attacks of Insanity in cases of Refusal - 29.8 per cent. of the cases refusing food and labouring under a first attack of mental alienation died, and 17.3 per cent. of the cases of second attack died.

Relation of Death to Cases of Anorexia being Suicidal by other means than by or in addition to Refusal of Food in cases of Refusal - 22.5 per cent. of the cases were otherwise suicidal and refusing food, died, i.e. 2.5 per cent. less than the general death rate in cases of anorexia. So that impetus to commit suicide by other means than by or in addition to refusal of food did not increase the death rate.

Relation of Death to Delusions Expressed in Cases of Anorexia - 25 per cent. of those who died during or after exhibiting the symptoms of voluntary starvation had delusions about the alimentary system, 40 per cent. had delusions of suspicion and 21 per cent. did not express delusions. Delusions of suspicion were, moreover, a more frequent accompaniment of fatal cases of anorexia than any other delusions.

The relation of bodily disease to death in cases
Observations

cases of refusal of food in insanity have been
detailed under the heading of causes of death.
Relating to Death to Social Position of Patient
in Case of Sifophoria - 20.5 per cent. of the
private cases refusing food died, and 37 per
cent. of the pauper cases. Refusal of food was,
therefore, much less likely to end fatally in private
patients than in paupers. In the latter class the
risk was very considerable; more than a third of
the cases died.

Too few data were available to decide the relative
death rate due to the form of mental disease exhibited by
and the social position of the patient. It appeared
that more maniacs died than melancholics and
more pauper maniacs and melancholics than private
maniacs and melancholics.

The effect of frequent attacks of sifophoria was
likewise not established. Out of 13 cases so affected
4 died.

Relating to Death to the Duration of Insanity in Cases
of Refusal after the Disappearance of the Symptom of
Sifophoria - When the duration of insanity in patients
who after refusing food began again to take it was less than
a month. 66 per cent. of the cases died. Of these,
only half of the melancholics succumbed, but the result in the
case of all the maniacs was, without exception, fatal.

Treatment—
Observations.

Treatment of Senophelia.

An inquiry into the proper treatment of the insane who refuse food was not instituted during the compilation of the above observations because the question would have required prolonged experimental investigation and sufficient experience in this direction was difficult to obtain. It may hence be said that nearly all the cases of senophelia the data refer to yielded to treatment of the alimentary system secondarily alone. To effect a cure when persuasion failed, fresh air, exercise, moderate purgation, gastric remedies and, when necessary, feeding by the naso-oesophageal catheter generally sufficed. In some cases of alimentary disorder such as the exhausted stage of acute mania, artificially digested food proved advantageous. For ordinary cases that was all the treatment necessary. But in instances of extremely persistent refusal of food from whatever cause or causes, and in patients in whom diarrhoea was brought-on by the ingestion of their customary stomach pump was often required. In employing this instrument—a soft tube was preferred; but it was the practice to have on hand an old soft gum elastic one for emergencies (vide Appendix, Clinical Lectures on Mental Diseases).
Observations


Out of 1557 cases examined, 100 during the course of their illness refused food and required forced alimentation, that is to say, about 6.5 per cent. of the patients observed refused food at some period or other of their attack of insanity.

The highest percentage of refusals occurred in melancholia and mania in order in general paralysis and mania. Soporophoria was a more common symptom in melancholia than mania. Although melancholia was in the cases admitted a less common form of mental disease than mania.

Voluntary starvation was a more frequent symptom of insanity in cases above forty years of age than in those below it. The percentage of refusals in relation to age was found to be greatest between fifty and sixty. In other words at the beginning of the decline of life refusal of food was a more prevalent symptom in mental alienation than at any other period. Next in frequency was the important decade embraced between the years of forty and fifty. Whereas the period of life when the insane least often refused food was twenty to thirty, a time when the patients probably possessed their greatest vital strength and activity. In melancholia, refusal occurred
Observations

occurred chiefly between forty and sixty or in advanced middle life. In mania it presented itself at the extreme of adult life being most abundant between sixty and eighty and also between twenty and thirty which is the first of the commonest periods of the onset of this form of mental disease. In general paralysis the greatest number of cases of arithrophobia happened between thirty and forty.

Scarcely any more women refused food than men, whether regard be had to the total cases of arithrophobia or merely to the cases of melancholia or those of mania refusing food. More female maniacs than female melancholics and more male melancholics than male maniacs had arithrophobia. There was a very great increase in the number of cases of refusal in females when they reached forty to fifty years of age in other words when they arrived at the period of the menopause. But the period of puberty in men did not materially affect the prevalence of the symptom. With regard to the male sex it was remarked that while age made no very marked difference in the percentage of refusals at any time between thirty and sixty the tendency was always towards a slight increase in the ratio of refusals with the advance of years i.e. with the decline of the vital functions. It is well to observe, however, that in women after the climacteric period the percentage of cases of arithrophobia closely corresponded to male.
Observations.

In melancholia the greatest number of refusals of food accompanied sexual or bodily decline; the highest percentage of female melancholics with anorexia was between forty and fifty and of males between forty and sixty. In manic-depressive activity in females and youth and age in males were most accompanied by the symptom of refusal of food.

The frequency of anorexia both in melancholia and mania but especially in the former varied inversely with the number of the attacks of mania and the chance of refusal was considerable in a first-attack but slight in recurrent cases. And in those patients who had thus experienced several attacks the chance of anorexia was greater in manic-depressive than in melancholic cases. It was also noted that a first attack of mania was more likely to have refusal of food as one of its symptoms than the female form in the male case.

Rather less than half of the patients who refused food had attempted suicide by other means than by or in addition to suicide by starvation. And while rather less than half of all suicidal cases were cases of anorexia, rather less than half of the cases of refusal were suicidal by other means as well as by or in addition to by the refusal of food. Voluntary starvation was, therefore, a common symptom of a suicidal...
Observations

Suicidal minor and patients who refused food were often determined suicides. Those of successive attacks of insanity accompanied by satiophobia were to a certain extent likely to be moronic suicidal. Refusal of food in the male had a more constant relation to a desire for self-destruction than in the female. Since so many of the melancholics as of the maniacs who refused food were also or only moronic suicidal, 92 per cent. of these cases who were suicidal by their means were by or as well as by refusal had some functional or organic bodily disease. There is of course no absolute connexion hereby established between physical diseases and suicidal desire although it is easy to see how some lesions may indirectly be the cause of suicide.

Of the 100 cases of refusal 50 laboured under delusions about their food or connected with their alimentary system and 10 under delusions of suspicion. So that the majority of cases of satiophobia had delusions (or illusions?) connected with the alimentary system. This was especially the case in melancholia. Males expressed delusions having in the alimentary system, delusions of suspicion and of bodily disease more frequently than females whilst the latter laboured under delusions of having to die, or, expressed no delusion, more frequently than the former. The tendency was greater for males with
Observations

with melancholia who had attempted self-destruction by other means than by or as well as by refusal of food, to have marked delusions, and for those with delusions of suspicion or of having to die by their attempt suicide. In cases thus otherwise suicidal the tendency of melancholia and maniacs who had delusions about the alimentary system and of maniacs with delusions of suspicion, or of having to die, or not expressing delusions was to attempt suicide by starvation in preference to other means. Melancholics with delusions of suspicion or not expressing delusions were equally prone to attain self-destruction by refusal of food and by other methods. Melancholics who believed themselves about to die or lost killed were more apt to attempt suicide by other means than by the refusal of food alone. Out of the hundred cases of refusal of food 57 had alimentary disease and delusions connected with the digestive system, 34 had alimentary disease but no delusions about the alimentary system, 10 had neither ascertainment alimentary disease nor delusions connected with the digestive tract, and 5 had no ascertainment of alimentary disease but had delusions connected with the alimentary system.

In 85 out of the 100 cases of melancholia alimentary disorder was present—beyond all doubt. But in 79 of those serious organic disease was probably absent. There was only one general paralytic in whom
Observations.

Whose some alimentary affection was not observed, he was very weak and had phthisis pulmonali. The percentage of cases with alcoholic disease in the total cases examined was not ascertained. 21 of the cases of refusal had disease of the haemopoietic system which, however, was a more frequent accompaniment of melancholia in melancholic than in maniacs. 21 of the cases had disease of the respiratory system and only 10 had phthisis pulmonali. Consumption was therefore a less frequent accompaniment in cases of refusal than in society generally and much less common than in maniacs generally. Enuresis of the urine occurred in only a single case and the patient, who had enuresis of the urine, was in an extremely low vital condition and laboured under melancholic stupor.

Schizophrenia was a more frequent symptom of the early stages of the more advanced stages of mania. This was especially the case in mania. Almost three-quarters of the hundred cases who refused food did so for periods not exceeding four weeks and very many of these for less than seven days. But in one case artificial alimentation was regularly conducted for a year and a half. It was continued for shorter periods in mania and general paralysis. Mania in melancholia: 90 per cent of the maniacs and all the paralytics only persisted in refusal for less
Observations

for less than four weeks. Whereas almost half of the melancholics refused food for more than a month.

Of the 15 patients with silphodia in whom no alimentary disorder was distinctly observed 9 cases refused for periods less than a month and 6 for various periods above a month. These six cases laboured under melancholia. Cases who had attempted suicide in some way other than by mere silphodia were, on the whole, more prolonged in their refusal of food than those who had not had multiform and aggravated suicidal tendencies. The relation between the delusions expressed and the duration of the refusal of food were not important. The only indication obtained in this connection was that in cases which persisted for over three months there was an increased likelihood that these patients would express delusions after referring to the alimentary system or delusions of a suspicious nature. Nine cases of silphodia in whom no alimentary disease was distinctly observed refused food for less than four weeks, and six - all of them melancholics - refused it for periods over a month, three of the six continuing in the symptom for over three months.

18 per cent of the private patients examined for silphodia and 21/2 per cent of the pauper refused food with showing a very considerable excess of refusals in private over pauper cases.

Difference
Observations

Difference in the social position of the cases of melancholia had more effect in varying the proportion of refusal of nourishment in mania than in mania, namely: about three-quarters of the melancholics were private patients, and about four-fifths of the maniacs were private cases.

In 35 out of the hundred cases, marked improvement, either mental or physical or both together, took place in the patient's condition before food was again voluntarily accepted.

Twelve of sixty-eight melancholics having asthenopia laboured under it, seven of these three-quarters were males. Eleven of the twelve had alimentary disorders. The majority of the cases refused food for more than a month. Two-thirds were private patients and finally a third of the patients died.

Eight out of fifty nine females refusing food were puerperal cases. Seven of these were cases of first attacks of insanity, and six were private patients. Six had alimentary disorder and only one died.

Of the ten cases labouring under acute maniacal excitement, and refusing food nine had ascertainment of alimentary disorder and one died.

By looking at the statistics in their relation to the result of the case it was observed that-
Observations

30 per cent. of the cases refusing food were discharged 'recovered', that is to say 12.5 per cent. below the average number so discharged in the total cases examined and about the same below that of those healed during eighteen years of the Asylum's history. Ectymorrhia was to that extent an unfavorable element in prognosis. An equal percentage of melancholics and maniacs recovered. In melancholia generally, the ratio of recovery was 5.4. But in melancholia complicated with psychotic, the percentage was only 3.2. While the highest proportion of recoveries in all the cases examined occurred at a different age from the highest percentage of admissions, in cases of refusal the highest percentage of recoveries and refusals occurred at the same age: 6. In the instances of refusal, 13 per cent. more women than men were discharged 'recovered' so that a much larger difference obtained between the sexes in relation to recovery in ectymorrhia. Home was obtained in the same relation during 18 years general experience in insanity. When the subsequent duration of mental disease, in patient who after refusing food began again to take it was over one and a half till three months, three-quarters of the cases recovered and even when the duration was above three and below twelve months the result still tended towards recovery. A higher percentage of cases of second attack recovered after refusal of food.
Observations.

Mention of cases of first attack. The presence of suicidal impulses in addition to or in preference to attempts by refusal of food made little difference in decreasing the rate of recovery of the patient. About a quarter of the in-patient cases who had delusions connected with the alimentary system and rather more than a quarter of those who had delusions of suspicion got better. About two-fifths of those who did not express any delusion recovered. The percentage of recoveries in those with alimentary disease was the same as that of the hundred cases of refusal. But respiratory disease decreased the rate of recovery in those who refused food. An almost equal proportion of private and of pauper patients exhibiting voluntary starvation regained mental health. More private than pauper melancholics and more pauper than private maniacs recovered.

Twenty per cent. of the cases of refusal of food were discharged "relieved," that is to say, were cases were relieved of those who refused food. Mean of the total patients examined, of whom only 16.7 per cent. were so discharged. A greater proportion of melancholics than of maniacs were relieved, indeed, no pauper maniacs were thus sent from the asylum. The highest percentage of cases discharged relieved occurred neither at the decade in life when refusal of food happened most nor at the time when insanity was most frequent, but between thirty and forty years of age.
Observations.

Of age. More cases of melancholia 30% of males and females were relieved of their mental disease than in insanity generally; and more of these were relieved in their first man in their second attack of lunacy. Those who had attempted suicide by means in addition to that as well as by melancholia had a higher percentage improved by treatment than were relieved in all the cases of refusal taken generally. Those not expressing delusions were more apt to be discharged relieved than those giving expression to delusions. Respiratory disease reduced the percentage of the cases relieved.

The number of pauper patients ameliorated by treatment in those who at some period or other of their illness refused food was less than half of that of the private patients and a little more than half that of the total cases—i.e., pauper and private—of refusal of food who were relieved. More private than pauper melancholy, and more private than pauper maniacs refusing food were relieved of their insanity.

18 per. cent. of the cases refusing food remained under treatment, and as 13.2 per. cent. was the average similar result for 18 years for all the patients treated in the R.E.A., it follows that cases of melancholia were more apt to continue under treatment and in them more likely to become chronic than cases of insanity.
Observations of insanity in general. More manics than melancholics and a larger proportion of patients below than above forty years of age remained under treatment. Difference in sex had no influence. Patients who after refusing good began again to take it, if they outlasted twelve months treatment—subsequent to their recovery from their attack of situophobia most frequently became chronic. Cases of a second attack of mental alienation complicated with situophobia persisted in their insanity more often than those of a first attack. Suicidal impulses and moral delusions made little difference, but delusions of suspicion greatly increased the risk of a case labouring indefinitely under mental disorder. And with regard to social position it was observed that more pauper than private melancholics remained under treatment, but that in mania the reverse obtained.

Twenty-five per cent. of the cases refusing food died. The death-rate in cases of situophobia was thirteen per cent. higher than for the total cases examined, and seven per cent. higher than experienced for eighteen years in the history of the Royal Edinburgh Asylum. So that, refusal of food materially increased the death-rate. One in four of the cases died. More of the manics than...
Observations

Man melancholies died. Taking the percentage of those who died in each decade of life on the total cases under treatment during eighteen years experience and of those who having had delirium tremens eventually died in each such decade, it was found that the death rate of patients refusing food increased in proportion to the age of the patient. Many more females than males died. Impulse to commit suicide by other means than by or in addition to by voluntary starvation did not increase the rate of mortality. Delusions of suspension were a more frequent accompaniment of fatal cases of delirium tremens than any other delusions. Alimentary, cerebral, and respiratory disease were the chief causes of death in cases of refusal of food. In nine cases exhaustion was considered the cause or one of the causes of death. Of these nine, only one or at the most two cases were not complicated by other serious disease in addition to delirium tremens. When the duration of insanity in patients who, after refusing food, began again to take it, was less than a month 66 per cent. died; barely half of the melancholies succumbed, but all the maniacs, with one exception, died. Voluntary starvation was less often a concomitant of fatal cases of insanity in private patients than in paupers in whom the risk was very considerable; more man
Observations.

than a third of the pauper cases died. Finally from the foregoing data it was observed that a higher percentage of pauper than of private melancholies and of pauper maniacs than of private maniacs who had suffered from siletphobia as a symptom of their mental disorder, eventually died.

Whilst this paper is almost exclusively concerned in the expression of conclusions based on numerical premises and not in the ventilation of hypothetical opinions it may be well to conclude by formulating a theory - in as few and brief sentences as possible - on the essential nature of the symptom of refusal of food in the insane. Or, therefore, subjecting the multitudinous facts detailed above to a close scrutiny it seems probable that siletphobia is a symptom generally excited by a depraved bodily condition of the patient and especially connected in a consequent manner with digestive disorder and with illusions or delusions about the alimentary system and in some instances with pain reflex visceral irritation. Occasionally it is of a purely suicidal, and at times of a merely whimsical origin. It is most frequent amongst the educated classes but its import on prognosis varies inversely with the social position
Observations
of the patient in fact it is more often a trivial symptom in privy than in pauper cases. It may result from the absolute inattention to the calls of nature which is often exhibited in the shape of melancholia and in the incoherence of acute mania. In women it is influenced by the menopause and by the puerperal period. It appears to be sustained by a reduced state of the system and by delusions about food or of suspicion - the latter are common in insanity when the patient is labouring under some bodily disorder e.g. phthisis pulmonalis. It is aggravated by self-destructive impulses, and it tends to the production of an unfavourable termination to an attack of insanity. The purely physical symptoms dependent on refusal of food in the insane are for the most part only those of ordinary starvation - the mental probably often belong to that class of phenomena included under the term conscious reflex processes.
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