Cod liver oil : causes of its frequent inefficacy, and means of removing the same, with remarks upon the superiority of the light brown over the pale oil, directions for its use, and cases in which the oil has been used with the greatest effect / by L.J. de Jongh.

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COD LIVER OIL.

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CAUSES

ITS FREQUENT INEFFICACY,

RECOMMENDED BY THE MCORAL MILVENT PHYSICIASS

AN ACCOUNT OF MY JOURNEY TO NORWAY UNDEUTAREN IN 1846

WITH REMARKS UPON THE

MEANS OF REMOVING THE SAME;

SUPERIORITY OF THE LIGHT BROWN OVER THE PALE OIL,

DIRECTIONS FOR ITS USE, HIMAN BUT HIW CHTARAT READ

CVER OIL; RELATED BY TYR AUTHOR :---

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20. Scrofnious Airophy

CASES IN WHICH THE OIL HAS BEEN USED WITH THE GREATEST EFFE

L. J. DE JONGH, M.D.,

OF THE HAGUE,

Late Medical Officer of the Dutch Army, Corresponding Member of the Society Pratique of Paris, Author of a Treatise entitled, "Disquisitio Comparativa Char Medica de tribus Olei Jecoris Aselli speciebus" (Utrecht, 1843), and of a wor entitled "L'Huile de Foie de Morue envisagée sous tous les rapports comme moyen thérapeutique," (Paris, 1853);

> Dinionum commenta delet dies, Naturæ judicia confirmat!" CICERO, De Natura Deorum.

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FOR THE SALE OF DR. DE JONGH'S COD LIVER OIL IN THE UNITED KINGDOM AND BRITISH POSSESSIONS, 77, STRAND.

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present Netherlands' Consul-General at Bergen having like his predecessor, taken upon himself, as a further guarantee, to affix his consular seal to every cask of Cod Liver Oil shipped to me.

Experience having further demonstrated to me the importance of chemically analysing .MOHTDUGORTNI to the most careful analysis by myself previous to being expressed for sale. Persons desirous of employing this Cod Liver Oil prepared for medicinal purposes and put to the previous test of chemical analysis, are therefore requested to pay particular attention to my signature, and the subicined stand

THE salutary effects of the Cod Liver Oil and its superiority over all other remedies for the cure of Rheumatism, Gout, Consumption and all kinds of Scrofulous complaints are now generally admitted by the most eminent practitioners—no remedy having of late years been so successfully and generally employed in the treatment of these maladies as Cod Liver Oil.

A certain irregularity in its effects has, however, been detected by close observers, and this irregularity, which could by no means be satisfactorily accounted for, caused many members of the Faculty, and myself amongst the number, to entertain doubts of its perfect efficacy.

After having previously devoted two years to the study of this substance, by means both of chemical analysis and of practical observation, I directed all my efforts to discover and remove the causes of these irregularities, which at last, on minute investigation, proved to be no other than the adulteration or admixture of this oil with others that possess little or no medicinal property whatsoever. The origin of the evil having been detected, there still remained the more difficult task of removing it. To attain this object, a journey to Norway, the country whence the most efficacious oil is obtained, was indispensable, and the interests of humanity being at stake, I did not for a moment hesitate in undertaking it. Baron de WAHRENDORFF, Chargé d'Affaires of Sweden and Norway at the Court of the Netherlands, M. D. M. PRAHL, late Consul-General of the Netherlands at Bergen, and other persons of the highest respectability have always shown me the utmost goodwill and lent me their most cordial assistance in enabling me to attain the desired result-that of ensuring a constant supply of the most powerful and genuine Cod Liver Oil for medicinal purposes.

I have thus been enabled to obtain the genuine Cod Liver Oil intended for medicinal use and prepared in the Loffoden Isles,—the

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present Netherlands' Consul-General at Bergen having, like his predecessor, taken upon himself, as a further guarantee, to affix his consular seal to every cask of Cod Liver Oil shipped to me.

Experience having further demonstrated to me the importance of chemically analysing the Oil, it will be submitted to the most careful analysis by myself previous to being exposed for sale. Persons desirous of employing this Cod Liver Oil prepared for medicinal purposes and put to the previous test of chemical analysis, are therefore requested to pay particular attention to my signature, and the subjoined stamp.

The bottles containing the oil are labelled, and the corks covered with a pewter capsule bearing the stamp annexed. The directions, a copy of which accompanies every bottle, are similarly stamped and signed.

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to the same person on whom it had had no effect for a long time previous, yet not until he had tried the oil procured from another druggist. This defect must not, however always be attributed to the druggist, for it v TRUODOAS the After having presented very excellent results for a certain space of time, the oil obtained at the same druggists is suddente perceived to be quite ineffectual,

MY JOURNEY TO NORWAY,

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WITH THE INTENTION OF INQUIRING INTO THE MEANS OF PROCURING THE PUREST AND MOST EFFICACIOUS

COD LIVER OIL.

oil from the livers of the Dorse which is caught in great quant-

AFTER the excellent results obtained by the use of cod liver oil in the various scrofulous complaints I had under my treatment in the course of the year 1842, which results I partially introduced to public notice in my "Disquisitio comparativa chemico-medica de tribus olei jecoris aselli speciebus,"*—a work of which Her Majesty the Queen of the Netherlands was graciously pleased to accept the dedication—I had some reason to suppose that cod liver oil, considered as a curative, would have maintained its acquired ground.

The results of my chemical analysis of this oil, which I communicated in the above-mentioned work, having evidently proved the presence of iodine, phosphor, sulphur, butyric acid, and fish-gall,[†] amply confirmed me in my opinion, by throwing a light on the action of this medicine in the cure of scrofula and rheumatism.

The unfailing efficacy of this substance as a curative has, however, since been contested; and I myself have had frequent opportunities of observing the irregularity of its operation, which sometimes amounted to perfect inaction, and that in cases where, under the same influence, it had rendered the greatest service.

Having, as it were, exclusively occupied myself with the use and study of this remedy during two ensuing years, and arriving at this unfavourable result at last, I was desirous of detecting the latent cause of this apparent contradiction.

That it was by no means attributable to the influence of the seasons was evident, since this irregularity appeared in the summer as well as in the winter; and that it did not originate in constitutional tendencies was also apparent, from its suddenly becoming beneficial

^{*} See page 259—356 of that work.

⁺ See page 159—161 ibid.

to the same person on whom it had had no effect for a long time previous, yet not until he had tried the oil procured from another druggist. This defect must not, however, always be attributed to the druggist, for it very often happens that, after having presented very excellent results for a certain space of time, the oil obtained at the same druggists is suddenly perceived to be quite ineffectual, and this will generally be found to coincide with the laying in of a fresh provision.

The observation of these facts led me to suppose that the irregular action of this medicine could but originate in the quality of the oil, and I was strengthened in this opinion by calling to mind letters I had received in 1841,* from Norway, informing me of the oil being extracted from the livers of three different kinds of fish, called the *Dorse*, *Sey*, and *Haakjering*; and likewise stating that considerable medical properties were attributed to the oil from the livers of the Dorse which is caught in great quantities during the winter near the Loffoden isles; that the oil obtained from the two species, the Dorse and the Sey, was frequently mixed—which practice, however, was not adopted during the principal fishing season; that an oil was often to be met with composed of a mixture not only of various fish oils, but even of the oil obtained from the fat of the seal; and that all these mixtures were hardly to be detected even by connoisseurs.

The efficacy, therefore, of this substance, in fine, must depend on the accidental fact of its possessing more or less medical properties in proportion to its genuineness or its adulteration with other oils possessing no medicinal quality whatever, or, perhaps, even with deleterious kinds, such as the oil obtained from fat and from herrings, which latter oil I have only lately become acquainted with.

But I still bore in mind the excellent results I had obtained in 1842, when I employed, for medical treatment, the same oil I had analysed, and henceforward I resolved not to use any without having submitted it to this test.

The results of the chemical analysis I had made in 1842, I now considered as my standard, and only applied myself to ascertain the presence of the iodine and phosphor.

Henceforward the doubts I had entertained concerning the genuineness of the liver oils commonly retailed were converted into a settled conviction; for my investigations proved to me how seldom they were to be met with in an unadulterated form; very often I discovered only a slight trace of iodine and phosphor, where I ought to have found a very ponderable quantity; and it has even sometimes happened, that the complete absence of iodine has proved that the mere oil obtained from fat or from herrings,

^{*} See my dissertation, page 11-15.

or perhaps a mixture of these two sorts, was sold for the genuine Bergen cod liver oil.

Whenever the results of my chemical experiments were satisfactory, which they rarely were, the consequences were again as successful as ever, and, provided I could by chance meet with the article pure and unadulterated, my faith in the excellency of this remedy, for all scrofulous complaints and chronic rheumatism, was not only restored, but fully confirmed.

But a medicament that is but rarely and accidentally to be met with in its unadulterated state, and then even does not offer unequivocal outward signs of being genuine, cannot be considered as entitled to the confidence of the Faculty; for the physician can never foresee the fatal effects attending on a spurious mixture; and even considering it to be merely inefficacious and by no means detrimental to the constitution, he loses by delay a *most valuable time*, during which he might have tried other remedies. It therefore appeared evident to me, that whatever might be the precious qualities of this oil when applied in all its purity and genuineness, it was nevertheless on the point of being lost to medical use, unless proper measures were adopted to insure the possibility of always obtaining the purest and most efficacious quality.

This was therefore, for the sake of humanity, the task I now determined upon undertaking, and to which I devoted the labours of two ensuing years. The time it cost me to attain my object sufficiently proves the difficulties that lay in my way.

The investigations I set on foot concerning this subject, brought the following points to my knowledge, viz. :---

1. That Bergen is not the only town in Norway from whence cod liver oil is exported.

2. That the merchants themselves are not at all sure of always receiving an unadulterated article from Norway.

3. That people are utterly ignorant of the species of fish from which the oil is extracted.

4. That, very frequently, a certain oil is prepared from the Norway product, which is said to be purified, or, at least, divested of its unpleasant flavour, and therefore applied to medical purposes; but this oil, having undergone a certain chemical process, must likewise have been deprived of some of its essential qualities, and therefore no longer deserves the name of cod liver oil.

5. That a certain oil, obtained from fat,* is to be met with, which is usually half as cheap again as the real cod liver oil, and being, moreover, nearly tasteless, and of a light colour, is particularly fit for mixing with other fish oils.

When we take into consideration the number of hands the

^{*} Known by the trade under the name of South Sea oil, and obtained from the cachelot or spermaceti whale, a cetaceous fish of the balana genus.

Norway oil has to pass through before it is administered to the patient in the form of a medicine, it will evidently appear, from what I have stated, why the genuine unadulterated Bergen cod liver oil is so seldom to be met with.

I had now therefore come to the conviction that the only way of realising my project was to pursue my investigations on the very spot where the oil is obtained; and I consequently resolved to set off for Norway, and there to devote all my energies to the attainment of what I proposed. I left the Hague towards the middle of July, 1846, for Bergen, that great commercial city of the North.

Baron de Wahrendorff, chargé-d'affaires of Sweden and Norway, at the court of the Netherlands, had most obligingly favoured me with a special letter of recommendation to the various scientific institutions and authorities of Norway.^{*} I also took care to provide myself with some letters of introduction to the most eminent members of the Faculty, and to the first commercial houses of Bergen, amongst whom were Drs. Wisbeck and Danielsen, and M. D. M. Prahl, Netherlands Consul-General at Bergen; M. Krohn, Austrian Consul; and M. J. Mohr, Sicilian Consul. For these letters I was indebted to the obliging kindness of M. Antonij, Swedish and Norwegian Consul at Rotterdam, and M. Eugedius, Swedish and Norwegian Consul at Amsterdam.

Nor can I, in expressing my thanks to these gentlemen for the readiness with which they forwarded my views by favouring me with these highly interesting letters of introduction, omit testifying all I feel to those whose kind offices at Bergen were so highly instrumental in crowning my efforts with success.

The Consul-General of the Netherlands, as well as those of Austria and Sicily, not only afforded me every possible information, but also provided me with the different sorts of oil that I required for my experiments. To the Austrian Consul I was moreover indebted for the facility of making some indispensable chemical investigations in the excellent laboratory of his son, whose intelligent assistance was highly valuable. Drs. Wisbeck and Danielsen not only favoured me with all their observations concerning the medical action of the different sorts of oil, but they also introduced me to other members of the Faculty at Bergen, that I might become acquainted with the result of their practical experience.

Dr. Danielsen, principal physician to St. George's Hospital at Bergen, even had the kindness to accompany me to the great entrepôts of liver oil, and to put me in communication with the first men in that line, in order to gather every information that

[•] The tenor of this letter of recommendation evidently proves the deep interest taken by His Excellency in the success of my scientific investigations.— (See testimonial documents.)

could be acquired. I am, therefore, not only highly indebted to those persons to whom I was thus specially recommended, but likewise to M. Carl Konow, Spanish Consul; to M. J. Frielle, French Consul; and to Drs. Heiberg Müller, and Koren.

The results of my investigations and experiments, which have since been more minutely detailed in my works published in Germany, France, and England, were highly important, as they enabled me to ascertain that the best and most powerful oil was procured from the Dorse or Gadus Callarias, at the Loffoden Isles; that not only Bergen, but other places in Norway export their oils; that many of these places only derive their supplies from the peasants of their environs engaged in the small fisheries; that Bergen itself obtains in this way full one-fifth of what it exports, the produce of what is called the little fishery generally consisting of a mixture of all the different sorts of oil; and that, after all, it is not unusual among the wholesale dealers of Bergen itself to mix their oils. It, moreover, appears that, since the application of the cod liver oil to medicinal purposes, no change whatever has been made in its preparation.

These facts, therefore, amply account for the impossibility of always meeting with the genuine efficacious cod liver oil, as well as for the irregularity observed in its medical action; they likewise evidently prove that, even by addressing one's self to Bergen, the object of ensuring to the faculty a continual supply of the most efficacious and genuine cod liver oil would by no means be attained.

As soon as I discovered that the pure Dorse oil was prepared in the Loffoden Isles, and a certain quantity of it annually sent to Bergen, I concluded that the only way of obtaining a genuine supply lay in the co-operation of confidential persons, established either at Bergen or in the Loffoden Isles, or, if possible, in both of these places; and I was fortunate enough to succeed in securing such co-operation, and in entering into satisfactory arrangements with commercial firms of the highest standing and respectability in Norway.

I have now only to indicate one more precautionary measure which will be invariably and scrupulously observed, and this I consider of the highest importance. Of every cask of oil forwarded to me in the above-mentioned manner, a sample will be taken and submitted by me to a chemical test before its being exposed for sale. By this means, the Faculty and the public in general may rest assured of being able to procure the purest and most efficacious cod-liver-oil, and this medicine, no longer exposed to the influence of accidental causes or foreign ingredients, capable of destroying, altering or paralyzing its effects, will be able to assert its full rights, and maintain the ground it has so deservedly acquired.

SUPERIORITY OF THE LIGHT BROWN OIL OVER THE PALE OIL.

since been more minutely detailed in my works published in

The Light Brown Cod Liver Oil is in higher repute on the Continent than the Pale Oil, in consequence of the proved superior efficacy of the former. To such an extent does this preference prevail, that in Holland and Germany, where this remedy has been prescribed for upwards of thirty years by the Faculty for Rheumatism, Gout and Scrofulous Diseases, and of late years with striking success for Consumption, the pale, or rather the yellow oil, which flows spontaneously out of the livers, although formerly preferred by others and myself on account of its somewhat less disagreeable taste and smell, is at present almost totally in disuse. The preference given now by me to the light brown over the pale oil is not only based upon this ground, but is more especially founded upon the results obtained by me in a series of comparative therapentical experiments with both kinds.

The analyses which I made in 1852 of that kind of pale oil generally used in England, and prepared upon an extensive scale in Newfoundland, have moreover brought to light the causes of its inferiority as compared with the light brown. These are attributable to the livers used, the boiling, and the mode of preparation of the pale oil.

In my works upon this subject, extensively circulated amongst the Faculty in England and on the Continent, I have pointed out the essential difference between the Cod Liver Oil generally used in England, and that kind to which I have given the preference.

Chemical experiments made by me in 1842 and 1843 upon the genuine Cod Liver Oil, give the following component parts : viz.

GADUINE, an organic substance, I discovered, and to which I have given this appellation.

OLEIC ACID.	CHOLINIC ACID.	SULPHURIC ACID.
MARGARICACID.	BILIFELLINIC ACID.	PHOSPHORUS.
GLYCERINE.	BILIFULVINE.	CHALK. ont-svoda sit
BUTYRIC ACID.*	IODINE, BROMINE,	MAGNESIA.
ACETIC ACID.	AND CHLORINE.	Soda
FELLINIC ACID.	PHOSPHORIC ACID.	being able to procure

And, according to my analysis of 1852, the English pale oil contains scarcely any volatile fatty acid, and a smaller quantity of

* The existence of this acid in Cod Liver Oil was first discovered by me in 1842.

iodine, phosphate of chalk, and elements of the bile than the light brown oil.

When it is, moreover, considered that my series of comparative therapeutical experiments with the various kinds of Cod Liver Oil has demonstrated the superior efficacy of the light brown oil, and that this very kind contains in larger quantities iodine, phosphate of chalk, volatile acid, and the principles of the bile than the pale oil, there is no doubt that the efficacy of the Cod Liver Oil is to be ascribed to these principles, of which the pale oil is entirely or partially deprived by its mode of preparation.

This is the natural cause of the inferior action of the pale oil compared with the light brown, to which must be added the frequent adulterations with oil of poppy and almonds, its admixture with skate oil, and its filtration through charcoal, the aim of all which is to render the colour of the oil as pale and its flavour as pleasant as possible.

The object of ministering to the prevalent prejudice for the palest and most palatable oil is doubtless attained in this manner, but in proportion as both these points are gained the remedy loses in power and efficacy. Thus a large proportion of the oil sold as genuine and unadulterated Cod Liver Oil is very deficient in these requisites.*

* The following remarks by the late Dr. Edward Carey bearing upon this subject are extracted from the appendix to his translation of my work entitled "The Three kinds of Cod Liver Oil Comparatively Considered," &c., published by Taylor, Walton and Maberly, London, 1849, pp. 163-166 :--

"Dr. de Jongh's opinion, founded on practical experience, not on mere speculative theory, should carry with it its due weight, and lead, if not to its adoption, at all events to further inquiry, on the importance of this distinction, which has not been sufficiently regarded by the English practitioner, and which, indeed, may have arisen partly from its being still imperfectly known, from the writings on the subject being extremely limited, and in a great measure, perhaps, from the difficulty of obtaining the oil direct from Norway. The best Bergen oil has been shown to be derived most exclusively from the livers of the Dorse (Gadus callarias) and Coal-fish (Gadus carbonarius), which are caught only on the coast of the Loffoden Islands, and are not indigenous to our coasts, but are natives of regions many degrees colder ; and, from which circumstance, may be supposed to yield a far richer oil.¹ The fish caught on the English coast, from which the oil used in England is obtained, is considered by some naturalists not to be healthy,² from the fact of its being out of its proper latitude, as well as being deprived of its natural food, which is the cuttle-fish.

"Much also may depend on the mode of preparation adopted in England, which would appear to have in view the production of a white tasteless oil, irrespective of its chemical properties.³ Be it what it may, I am confident that, if analysed according to the method employed in this work, it will be

1. The size and fatness of the liver are often alluded to as being necessary to produce a rich oil.

2. Vide Pennant's "Natural History."

3. A great facility is thus given to the introduction of an adulterated oil, which is the impure fish-oil purified and blanched with chlorine.

DR. DE JONGH'S COD LIVER OIL.

MALADIES FOR THE CURE OF WHICH THE COD LIVER OIL HAS BEEN RECOMMENDED BY THE MOST EMINENT PHYSICIANS.

CHRONIC RHEUMATISM.	SCROFULOUS OPHTHALMIA.
SCIATICA, it old odt to selgioning	INFANTINE ATROPHY.
HEMICRANY, 1 boo edd to your	RACHITIS.
CARDIALGIA.	OSTEOMALAXY.
RHEUMATIC TIC DOULOUREUX.	SCROFULOUS CARIES.
CHRONIC GOUT.	SCROFULOUS AFFECTIONS OF THE
RHEUMATIC AND GOUTY PALSY.	JOINTS.
SCROFULOUS DIATHESIS.	TUBERCULAR CONSUMPTION AND
TUMEFACTION OF THE LYMPHA-	DIVERS DISTURBANCES IN THE
TIC GLANDS. wall sti fine slor	FUNCTIONS OF THE SYSTEM OF
SCROFULOUS ULCERS.	THE MUCOUS MEMBRANES.
CHRONIC EXANTHEMATA.	prostores and a second

found greatly deficient in many of the chemical properties which have been found in the Bergen oil, particularly in the biliary matter which imparts the colour to it, and to which it may owe its superior efficacy.

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"In the present state of our knowledge on the subject, and with these facts before us, I do not think we are justified in denying to the Bergen oil, and to the brown in particular, this superior efficacy, or in substituting an inferior article, merely on the supposition of its being more palatable. We thus peril the reputation of a valuable remedy, and favour a prejudice already too prevalent, which we should be careful how far we encourage—that it is more nauseous, and impossible for the stomach to bear; this not bring the case, an idea which can only have arisen, as I have before stated, from the genuine Bergen oil not being known."

Again, in the Lancet, June 17, 1848 (p 678), is the following communication to the Editor:

"In my experience in the use of the cod liver oil, which extends over a period of twelve years, I have never seen any ill consequence result; nor has any been noticed by the different authors who have written on the subject. On the contrary, it has seldom failed, when long persevered in, to afford amelioration of the symptoms in those cases where a cure could not be effected.

"It may be given with confidence in all cases where the powers of life are low, and where the improper assimilation of the food is the cause; it affords nourishment when none other can be borne, restores the functions of digestion, and furnishes the frame with fat in a truly wonderful manner.

"Success will depend as much upon long perseverance as on the Quality of the oil prescribed. The brown coloured oil should invariably be preferred, as it has been found to contain more of the active principle, whatever that may be, on which its virtues depend, and it effects the cure in half the time required by the lighter coloured."

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DIRECTIONS FOR USE

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The repugnance manifested by most patients towards commencing the use of Cod Liver Oil is mainly attributable to prejudice. Its taste and smell are, it must be admitted, not the most agreeable; but it is undeniable that there are innumerable other remedies, which are still more unpleasant in both these respects; and experience has proved that patients, who in the outset felt the greatest disinclination for this medicine, have gradually become accustomed to its use, and have eventually taken it with a certain degree of relish.* This is more especially the case with children and frequently it is found difficult to wean them from this remedy, after they have taken it for some time. I consider therefore everything that may be added to correct the flavour of the Cod Liver Oil not only as superfluous, but as contrary to the object in view, since substances used for that purpose often occasion risings in the stomach, which render the use of the oil disagreeable to the patient. A little preserve for children, some fruit, a biscuit, or a drop of Bordeaux or Sherry wine for grown-up persons, taken, however, after the oil, are the best means I can point out to remove the slight irritation that sometimes remains in the throat long after the use of the oil. I particularly recommend the use of the oil shortly after meals. I rarely prescribe the Cod Liver Oil for children under six months old. After that period it can be safely administered, especially when several children of the same family are labouring

* In the able "Treatise on the Oleum Jecoris Aselli, or Cod Liver Oil, as a therapeutic agent in certain forms of gout, rheumatism, and scrofula, by John Hughes Bennett, M.D., F.R.S.E., Edinburgh, 1848," that distinguished practitioner has the following remarks upon this subject, pp. 42 and 64 :- "In very rare cases it is again vomited, but the generality of individuals soon overcome the nansea, and after some days use of it find no difficulty in keeping it on the stomach. It is astonishing how custom reconciles individuals to taking this certainly highly disagreeable remedy, even those who at first have expressed for it the strongest disgust. The Laplanders and the inhabitants of some other northern nations, it is well known, take it habitually and consider it a delicacy. Even in Shetland, I am informed by Dr. Edmonston, that it is used extensively, when fresh, as an article of diet instead of butter, and that it is universally considered palatable and wholesome. Many practitioners have observed that children take it much more readily than adults, and become sooner accustomed to its use. Riecke remarks that they drink it by no means unwillingly, and even put their parents in mind of the proper time to take it. * * * * Indeed, I can confidently state that this objection is purely imaginary. I have now given it to numerous individuals, and to some persons in the higher ranks, who, on being assured that the nauseous taste would disappear as the stomach became habituated to the oil, have taken it for two months without difficulty. One gentleman informed me that, although it was exceedingly nauseous the first few days, he subsequently took it with as much facility as he should have done a like quantity of milk. Children soon become accustomed to it, and take it readily."

DR. DE JONGH'S COD LIVER OIL.

under scrofulous disease, and hereditary predisposition to that malady may therefore be supposed to exist. More than a tea-spoonful twice a day must however not be given to children under a year old ; to children between two and four years old, two dessertspoonsful a day; and to children above that age a table-spoonful. In violent cases this quantity may even be taken three times a day. To adults I prescribe from two to six table-spoonfuls a day, according to the urgency of the case. In cases of insurmountable aversion to the taste of this oil, which are, however, of very rare occurence, I have seen the happiest results attending its use in the form of a clyster. Such an injection consists of two ounces of Cod Liver Oil and two ounces of a solution of starch. For very young children, half of this dose suffices. If the precaution be taken to administer. the injection lukewarm, and shortly after a stool, the patient will retain it for a certain time, and may expect to derive from it the most salutary effects. When used as an anthelmintic this method will be found to be particularly efficacious ; but it must on no account be resorted to in cases of diarrhea. I prescribe the God Liver Oil not only internally, but also EXTERNALLY, for the cure of rheumatic and gouty pains, the swelling of the lymphatic glands, and the tumid belly of rachitic children. I cause scrofulous ulcers to be dressed with compresses saturated with Cod Liver Oil, and similar compresses to be applied loosely to the affected parts in cases of scrofulous exanthemata or scrofulous affections of the joints. Fresh compresses should always be applied every two or three hours. I have also most successfully applied the Cod Liver Oil externally in cases of scrofulous ophthalmia. Diarrhœa proceeding from an irritation of the intestinal canal, spitting of blood, or derangement of the digestive functions, require the immediate suspension of the Cod Liver Oil treatment until these disorders be removed by proper remedies. In order completely to eradicate a scrofulous or rheumatic habit, the treatment with the Cod Liver Oil must be continued uninterruptedly, at least during an entire year. I would especially recommend that for children of scrofulous habits its use should be combined with that of hop, camomile and potash baths. Of late years I have recognised the salutary effects of SEA-BATHING, when prescribed simultaneously with Cod Liver Oil, in the majority of scrofulous affections.

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BR DN JONCE COD LIVER OIL

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THE LIGHT BROWN COD LIVER OIL, RELATED BY THE LATE

DR. EDWARD CAREY.

1.—Curvature of the Spine, with Paralysis of the Lower Extremities.

robust child. He is now hine years old and has enjoyed average

MARY P-Aged 6, born of unhealthy parents, of scrofulous diathesis, and with enlarged abdomen, emaciated appearance, and swelling of the glands of the neck; had been affected since birth with curvature of the spine and paralysis of the lower extremities. In the lumbar region, the natural bend of the spine forward was increased so much beyond its proper axis, that the spinous processes could not be felt. The lower extremities, attenuated to the smallest size, hung powerless from the pelvis, which was thrown backwards. The whole osseous system was deformed; the sternum thrown forwards, the clavicle bent to right angles; the muscles of the back were sufficiently developed to support the erect posture when seated. The vital powers were much depressed ; cold shrunken skin, tongue furred, bowels irregular. The secretions having been corrected with mercury and chalk, the use of the oil was commenced by one table-spoonful three times a day, nourishing diet, and tepid salt water baths three times a week. At the end of a month the general health was visibly improved, the power of motion was gradually restored to the extremities, and she began to crawl. At the end of three months she stood at the bedside, and at the expiration of six months she walked alone. She continued improving under the use of the oil, until she was able to run about and enjoy the perfect use of her limbs. The spine remains still somewhat incurvated forwards.

D. G.—.—.Aged 1 year and nine months, born of scrofulous parents, a ricketty, strumous child; large head, fontanelles open and large, tumid belly, dark hair and eyes; the spine was distorted, the sternum and clavicles were thrown forwards, the bones of the frame soft and yielding. At this early age he was subject to periodical attacks of dyspnœa, resembling spasmodic asthma, occurring every fortnight, and ceasing after some hours duration. The respiratory murmur in the intervals was normal, though the breathing was somewhat quicker than natural. Three former children of the same parents had been similarly affected, and had died young. A course of iodine and hydriodate of potash had been persevered in, for three months, without any visible alteration in the general health or alleviation of the distressed breathing, nor had the infant acquired the least power over his limbs. The oil was prescribed when he was a year old in doses of a tea-spoonful three times a-day, increasing it gradually to a dessert-spoonful. After the first month, the attacks of dyspnœa became less frequent; at the end of the third they had ceased, the general health rapidly improved, the limbs acquired strength, and he became a stout, robust child. He is now nine years old and has enjoyed average good health since the above-named period.

2.—Phthisis.

M. D. P. — Aged 35, of consumptive habit, florid complexion, nervous temperament; father still alive and healthy; mother had died at an advanced age of gastric disease; an only brother had fallen a victim to confirmed phthisis, and one sister is at present living, of the same delicate appearance. Our patient had suffered for many years from pain in the left side, dyspncea, occasional cough, unattended by expectoration, which symptoms were readily aggravated by any exciting cause.

On the 10th of April, 1848, after exposure to cold and fatigue, having previously been much depressed by extreme mental suffering, she had an attack of her usual symptoms attended with considerable hæmorrhage from the lungs; when I first saw her, she was not reduced in flesh, but there was complete incapacity to assume the horizontal posture, respiration was short and difficult, with a feeling of oppression; pain in the side much increased, cough frequent, accompanied with bloody sputa; skin hot, pulse 120, weak.

Chest, over the greater part, dull on percussion; respiratory murmur inaudible over the whole of the left side; on the right, respiration puerile and bronchial, with distinct mucocrepitant râle in the clavicular region. Digestive organs much disordered; constant sour eructations, loss of appetite, bowels irregular.

The more urgent symptoms were subdued by leeches, moderate antiphlogistic treatment, etc.; and, although the expectoration was occasionally tinged and rusty, there was no recurrence of active hæmorrhage. The dyspnœa, cough, and pain in the left side were relieved, but still existed, with acceleration of the pulse; she had become much emaciated, hectic flush was present, with night sweats.

A course of hydriodate of potash and iodine was followed by no decided results; she remained much the same, her symptoms, however, were somewhat alleviated, and her strength sufficiently restored to allow of her rising from her bed, and reclining on a couch during part of the day.

Having succeeded in overcoming a very great aversion to the cod liver oil, she commenced taking it in August (notwithstanding her gastric symptoms), a table-spoonful twice a day. After she had taken it for three weeks, she was so sensible of the benefit she derived from it, in the amelioration of all her symptoms, but particularly in the restoration of her strength, improved appetite, and the absence of the acid eructation, that she increased it to three times daily. Her improvement was rapid, and she was soon brought to that state of health which enabled her to get through the winter comparatively well by continuing the oil, which she did, with only occasional intermissions, so that the spring found her capable of enjoying the air, and, in a short period, to return to her avocations, enjoying a better state of health than she had done for many years.

The left lung remains impervious to air; considerable change has taken place in the right, the respiratory sounds assuming a more healthy character.

3.—Incipient Tubercular Phthisis.

D. M.——.—Aged 15, delicate complexion, fine clear skim large blue eyes, dilated pupil; long eye-lashes; highly scrofulous appearance. Father died of consumption; one brother and three sisters living, all of phthisical tendency. She has always been subject to dyspnœa, particularly in ascending any height, with a feeling of pain and lassitude in the limbs; she was, however, never considered unhealthy, nor had she suffered from any serious illness.

On the 11th of January, 1846, after a violent exertion of running, her breath was so distressed that fainting was produced; from which, however, she soon recovered, and was able to walk home. From this time the pain and lassitude in the lower limbs were perceptibly increased, became gradually worse, and, after a few days, on attempting to rise in the morning, she found that she had lost all power over them. When I saw her, she exhibited her usual appearance, not reduced in flesh, but was perfectly paralysed from the pelvis downwards; sensation was perfect; no pain or pressure in the course of the spinal marrow; pulse from 120 to 130; small and weak; heat of skin rather increased; perspiration hurried; cough, though slight, easily excited. She had menstruated, and had been regular since the age of fourteen. Chest was dull on percussion; respiration highly puerile; heart sounds audible over the whole præcordial region. The dry cough increased with the confinement, and after a short time became incessant. continuing day and night without any intermission. She became much emaciated, and reduced to the last stage of exhaustion, having lost her appetite, and being unable to take any nourishment.

Every means failed to afford relief or subdue the cough, and the only one left, the propriety of trying change of air, was questionable, from her extreme debility. This, however, was accomplished in the month of June, by sending her across the sea to an adjacent island, but proved equally unsuccessful; she returned, still coughing, though her strength and appetite were somewhat improved. She was perfectly unable to move her limbs.

In the latter end of July, I prescribed the Cod Liver Oil, not in the expectation of its succeeding, for I considered her case beyond the reach of medicine; but to satisfy the friends that nothing had been left untried. A table spoonful was given three times a day; and she had taken it but a short time ere she perceived a decided abatement in the cough; her inclination for food returned; she was stronger, and a visible improvement was manifest in her general appearance.

At the end of six weeks her cough had entirely left her, and she had acquired some power over her limbs. She was put on crutches, from which time, being able to move about in the air, she went on gradually improving; before the autumn, she left off her support, and could walk short distances. She passed the winter without any recurrence of the symptoms; adopting the greatest precaution, and persevering in the use of the oil, which she continued taking until the following September, without once leaving it off. During the following winter, from taking cold, she had a slight return of the cough, which was arrested by again resuming the oil for a short time. She is now restored to a better state of health than she enjoyed previous to her illness, and which she attributes entirely to the Cod Liver Oil.

4.—Scrofulous Caries of the Lower Maxilla.

M. A ______, ___10 years of age; about two years ago, was the subject of low fever; convalescing from which, the whole chain of cervical glands as well as the parotid inflamed and suppurated, producing numerous pustulous openings under the chin. The inflammation soon after extended to the mucous membrane of the mouth and gums, where an abscess formed, which, on being opened, discharged a fetid pus, which, leading to the detection of extensive caries of the lower maxilla, her health was much impaired; the functions of digestion disordered; powers of nutrition low; temperature of skin cold; bowels irregular; pulse weak.

February, 1849.—Her present appearance is that of an unhealthy scrofulous child, with the powers of life low; left side of the face considerably swollen ; two pustulous ulcers on the cheek, and those under the chin fusing out a thin fetid pus, with no disposition to heal ; inside the mouth, the whole of the alveolar processes on the left side of the lower jaw was in a state of caries, attended with an insupportable factor ; some of the teeth loose ; others had fallen out.* She had been a considerable time under treatment, without any progress being made towards recovery ; nature making no effort whatever to throw off the necrosed bone.

A dessert-spoonful of the Cod Liver Oil was administered three times a day, using at the same time the nitric acid lotion for the mouth. After the lapse of a month her general health was evidently improving; the ulcer put on a more healthy appearance; the discharge lessened; the foetor remained the same. During the second month the bone began to exfoliate, and before its termination the part of the ascending ramus of the inferior maxilla loosened and came away with the coronal process quite perfect; the separation had evidently taken place immediately below the articular process; the cavity soon filled up and quickly healed, which was the case also with the ulcers under the chin. A short time afterwards a considerable portion of the horizontal plate of the jaw, with the alveolar process, was again thrown off; healthy granulations sprung up, and the gum readily closed over it.

She has taken the Cod Liver Oil for nearly four months, and is quite restored to health. There is very little deformity, with the exception of the loss of her teeth and the marks of the cicatrices on the neck ; the cheek little varying, somewhat swollen.

5.—Porrigo Scutulata.

M. F——.—12 years of age, of healthy appearance, although born of scrofulous parents, and having no tendency to these diseases; had suffered since her fourth year from porrigo, for which she had been subjected to various modes of treatment without any benefit resulting, and she had been declared incurable. Her state, when I first saw her, was the following:—The general appearance indicated that the state of health was good. No treatment had been adopted for some months, with the exception of shaving the head and keeping it clean by washing it with soap and water. The eruption occupied the whole of the hairy scalp, from the forehead to the occiput, and the patches running into each other, leaving but few healthy spots here and there. The clusters of pustules were in different stages of maturation, some forming, others pouring out a copious acrid discharge ; many inflamed irritable parts remained

^{*} She was able to open her mouth, the motions of the jaw being little impeded, considering the extent of the disease.

after the removal of the scabs, which was effected by the washing, and which tended much to keep the disease in check. The hair, which had been kept constantly close by shaving, appeared to be of healthy growth.

The treatment was commenced by a table-spoonful of the brown cod liver oil administered twice daily, which was gradually increased to thrice daily, with the continual application of the oil externally, and the occasional use of the nitrate of silver ointment. After three months no fresh pustules were formed, and the head altogether assumed a less irritable character. The pustules went on the same course in the diseased parts, the patches, however, becoming more defined. After ten months' perseverance, the ulcerated spots put on a healthy character, contracted, and healed.

The process of the cure was gradual, and required a twelve month's perseverance in the use of the oil for its perfect accomplishment. She has never since suffered a relapse.

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In the autumn of last year, I was making a casual visit in the country, when my attention was directed by a mother to her child, a girl of three years of age, who, she told me, had been afflicted since her birth. She had never been able to use her legs as another child, nor had ever attempted to support the body on them.

The relaxed state of the ligaments of the ankle joint, and the yielding nature of the bones, as well as the extreme curvature of the bones of the leg, prevented her placing the sole to the ground, which, when supported, she rested entirely on the outer side of the joint. Although fat, she was an extremely strumous child.

The intention of the parents was not to seek professional assistance. She was pointed out to me as an afflicted object, for whom nothing could be done. I combated this opinion, and explained to them how much might be effected, at all events, to ameliorate her state. I was, however, unsuccessful; they would hear of no plan which would subject the child to pain or confinement. I recommended the oil, which they had never heard of, and they consented to try it. The circumstances of the case entirely escaped my memory. I never saw or thought of it again, until a few weeks ago, when the parents brought the child to me to thank me for the advice I had given them, on which they had immediately acted. A month was sufficient to convince them of the efficacy of the medicine; in two months she was able to run about, and was so active on her feet, that the mother's expression was, "I cannot afford to keep her in shoes." They then discontinued the oil. Considerable curvature of the tibia and fibula still exists, for which I have advised their again recommencing the oil, in order to correct, if possible, this deformity.

CASE TREATED WITH

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LIGHT BROWN COD LIVER OIL,

had any relation of GATALAR any sister as to his duture

DR. CHAMPOUILLON,

AND COMMUNICATED BY HIM TO "LA GAZETTE DES HÔPITAUX," 12TH JANUARY, 1851.

7.—Tubercular Phthisis in its last stage.

On the 4th June, 1850, a man named Touchelet entered the Hospital of Val-de-Grâce afflicted with intense bronchitis of three weeks' standing. The third day after entering, he felt a very violent pain on the left side of his chest. Rusty sputa, and crepitating râle at the apex of the two lungs, shewed that a double pneumonia had succeeded to bronchitis. Two bleedings from the arm, cupping, tartar emetic in large doses, and a large blister at the seat of pain, rapidly reduced the pneumonia to the condition of tubercular bronchitis-the condition which existed previous to the appearance of the pulmonary obstruction. In the first days of the month of July, a fresh pleuro-pneumonia, with considerable effusion, manifested itself on the left side. Resolution took place more slowly than the first time, but at length the disease vielded to the same therapeutical means which had been adopted previously. This relapse appeared about to terminate fatally for the man, who was devoured by an intractable hectic fever kept up by the growing progress of the phthisis. In fact, violent diarrhea, night sweats, and nummular expectoration, which floated in a greyish puriform fluid, were daily exhausting his strength. There was at that moment beneath the left clavicle a very distinct gurgling, which extended over a limited surface, and coincided with cavernous voice; over the whole right subclavicular region, moist crackling was heard,-the unequivocal indication that tuberculisation was going on on this side.

It was then that I resorted to Brown Cod Liver Oil, without, however, having much faith in the success of this medicine, owing to the serious nature of the case. Nevertheless, the patient had scarcely taken a kilogramme of this substance, in doses of one ounce each day, when he was free from diarrhœa, sweats, and fever; the sputa, much less copious, were simply mucous. Convalescence, accelerated by an insatiable appetite, advanced with rapid strides. At the end of six weeks of this treatment, he had recovered his entire strength, and become more robust than he had ever been before.

I speedily discharged this man from the hospital. When he left all râle had ceased, and his breathing had become free and restored to its normal condition. It is impossible to assert whether this cure will be lasting. All that I know is, that since the 21st of September, the day on which Touchelet returned to his family, he has not had any relapse calculated to cause any alarm as to his future health.

CASES TREATED WITH

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BROWN, LIGHT BROWN, & YELLOW COD LIVER OIL,

weeks' standing. The thys GETALER's entering, he felt a very

THE AUTHOR.

8.—Scrofulous Chronic Conjunctivitis and Corneitis, with consequent Blindness.

pneumonia had succeeded to broughitis. Two bleedings from the

JANE VAN INGEN (15 years of age).-The father and mother have never been affected with scrofula, although all five brothers have suffered from it. The patient had had, until her fourteenth year, an eruption on the head, of which she had been cured by continued washing with soap and water. Six months afterwards, she went to bed perfectly well, and awoke unable to see out of the right eye; four weeks after this, the same thing happened to the other eye, and she then sought advice. She was ordered the internal use of the Cod Liver Oil. Although it was not taken regularly, the improvement in the eyes was so great, that, after a few days, she was able to see her way alone. On the 16th of March she was bled, in consequence of violent throbbings in the head, and drowsiness. The throbbings, the drowsiness, and the headache gave way, but the wound in the vein suppurated, and the matter burrowed so deep, that it was feared that it would reach the joint. The Cod Liver Oil was again ordered; the patient herself acknowledged that she had altogether neglected its use. On the 1st of May she was placed under my observation, and her state was the following :---

Delicate constitution, cachectic habit, the edges of the lids swollen, and the vessels of the conjunctiva of the lids and ball of the eye very turgid; a plexus of vessels in each eye, running from the angle to the coener, and there forming a ring; the cornea of both eyes obscured; a central pustule on the left cornea; on the left arm the above-named abscess. The appetite good, the digestion often disturbed; diarrhœa; respiration normal, the pulse slow, the secretion from the meibomian and lachrymal glands increased; slight pain in the eyes and in the arm. On closing the right eye, the patient cannot distinguish between light and darkness; with the right eye, objects are seen as in a mist. The sleep is quiet.

15th May.—The edges of the lids less swollen; the ulcer cleaner; the digestion better, the evacuation less frequent, the secretion of the meibomian glands not so great.

1st June.—Improved appearance, the vessels of the conjunctiva not so distended; less opacity of the cornea. The patient is enabled to distinguish objects better; the right eye can bear more light; the secretion of tears diminished; the ulcer not so deep, and more contracted.

15th June.—Far better appearance; the edges of the lids no longer swollen; the plexus of vessels begin to disappear, particularly in the right eye; the secretion from the meibomian glands has nearly ceased; the digestion is normal; the ulcer, reduced to one-half, is granulating from the bottom.

Ist July.—The general appearance still more improved; the plexus of vessels, the opacity of the cornea, and the pustule on it, daily diminishing. The patient distinguishes objects well: a few days since she came to me without a guide. There was a lesser degree of intolerance of light, as well as a diminished secretion of tears. The ulcer is cicatrising.

15th July.—The patient sees distinctly; digestion normal; the ulcer perfectly cicatrised.

1st August.—The general appearance very good; the opacity so diminished that the cornea in both eyes begins to shine; the pustule of the cornea is becoming every day less.

15th August. – Only a small spot on the cornea; no intolerance of light, and no increased secretion of tears.

1st September.—With the exception of a very small speck on the cornea of the left eye, there is nothing to be seen. The patient was cured within four months, and has since been perfectly well.

9.—Herpes Squamosus Madidans.

EVERT SWEDENBERG (14 years of age).—Father and mother were scrofulous. The patient was supported entirely, for two years, on his mother's milk, during which he enjoyed perfect health and never suffered from swollen glands. At two years old he was vaccinated, six months after which he was attacked with inflammation of the eyes, which continued a twelvemonth. The symptoms were these :----the eye lids were much swollen; purulent discharge, constant burning pain, intolerance of light, and secretion of acrid tears. As the chronic inflammation and intolerance of light abated, the mother observed a speck on the cornea of the left eye.

Six months after the cure of the affection of the eye, the mother perceived, in the bend of the knee, a large red spot, consisting of many pustules, which burst, and poured out an acrid serous fluid. These running together, after a time dried up, and fell off in scales, when pustules were again formed. In three months, a similar eruption appeared in the bend of the right knee, spreading to the calf of the leg. This eruption remained in the same state. Different ointments, the last of which appeared to me to be the red precipitate, were in vain prescribed: nothing was given internally. With the exception of this affection, he was always well. On the 2nd of May, the child was brought to the hospital and placed under my care, at which time its state was this :---A decided scrofulous habit; a slight pustule on the cornea of the left eye; the glands of the neck swollen; the eruption in the bend of the knee appeared to be of a scrofulous character; the digestion often disordered; sour eructations; constipation; respiration normal; the secretion of an acrid serous fluid, from the surface of the eruption, was most abundant; the patient can scarcely walk, and that with great pain; the sleep is tranquil.

15th May.-The constipation is removed.

1st June.—The surface of the eruption is less red, in many places dry and smooth, in others, still covered with broad crusts; digestion and the sour eructations better; the secretion from the eruption less; the sleep latterly more tranquil.

15th June.—The swollen glands in the neck have nearly disappeared; the eruption begins to dry up generally although in some parts new pustules have arisen; four evacuations daily; sleeps better.

1st July.—The eruption on the right knee is altogether dried up; no humid spots are left; when the scabs drop off the skin is red, and rough to the touch. In the bend of the left knee the eruption proceeds equally favourable. The secretion is no longer acrid; evacuations two and three times a-day.

15th July.—The eruption on both knees is cured; the skin on the right knee has assumed its natural colour; the left is still red, and both are rough. The patient can walk easily; the swollen glands in the neck have almost disappeared; digestion good; evacuations twice daily; sleep quiet.

1st August.—The skin on the left knee is now healthy. For the space of one month no fresh pustule has formed; the digestion restored, and motions regular. In the space of three months, the patient has been cured, by the use of the cod liver oil, of an eruption, from which he had suffered for ten years; since which he has been perfectly healthy.

10.-Incipient Scrofulous Affection of the Ankle-joint.

KATHERINE HENTING (9 years of age).-The father and mother were never scrofulous, though they suffered from rheumatism. The mother has had fourteen children, and of these, twelve died between the ages of six months and three years. From the accounts, it appeared that the disease of which they had died (for almost all of them had been nursed only two months) was atrophia infantum. Of the two remaining children, the one (which is now six years old) at the age of one year and a half had an eruption on the head, which was cured in three months with red precipitate ointment, and washing with soap and water. She has since been healthy, with the exception of carious teeth, and an offensive smell from the mouth. The other child, our patient, was weakly and delicate until she was a year and a half old, since which the body had been better nourished. In the third year she was seized with a discharge from both ears, which soon ceased of itself; again came on, and was then more decided than at present. In 1834 she suffered from an eruption on the back part of the head, which was cured by mercurial ointment. In March, 1839, and March, 1840, it again recurred, but was healed in a short time by the same means. At the commencement of the year 1841 she suffered very much from cholic, at the same time she was subject to fits of somnambulism. The eruption of the former year did not again return. In the month of May, 1841, she complained of pain in the right anklejoint, which was swollen. For the last fourteen days the patient has scarcely been able to stand on the right foot, on which account the mother brought her to the hospital on the 16th May, and she then presented the following appearances :---

Brown hair and eyes : well-formed face, rather freckled ; the chest well formed ; the belly hard ; the joint of the right foot is swollen, particularly in the outer ankle. The ankle of this foot considerably larger, painful on motion, and the patient can scarcely stand upon it. The appetite good ; tongue clean ; sometimes sour eructations, spasms, and cholicky pains. The bowels are open once a day ; fæces hard ; respiration and pulse normal ; sleep disturbed ; fits of somnambulism.

1st July.—The belly less swollen; sour eructations not so frequent.

15th July.—Belly softer ; digestion better ; no spasms.

1st August.—The cholicky pains less frequent.

15th.—The swelling of the right ankle joint has decreased;

digestion good; the cholicky pains and spasms of the stomach appear to have subsided altogether.

1st September.—The swelling of the ankle is diminishing, as well as the pain on motion.

15th September.—The ankle is decidedly better; standing on the foot gives scarcely any pain; walking is still out of the question.

1st October.—The swelling has disappeared; the ankle is, however, increased in size; she can now stand on it better, and there is no more pain experienced on moving it.

15th October.—The diseased ankle is much reduced in size; the patient is able to walk slowly without pain.

1st November.—The patient improves daily in walking.

15th November.—The inner ankle of the right foot is thicker than the left; the outer ankle is still somewhat more swollen; but for a month there has been no visible diminution in the enlargement. The patient can stand and walk without difficulty. The belly is soft, and not large; the functions natural. The patient was restored in about six months; she has remained healthy, and the affection of the ankle of the right foot is quite restored.

11.—Scrofulous Conjunctivitis and Corneitis (with an incipient Opacity, and a central Spot on the left Eye).

HENRY VAN HOORN (29 years of age).-A tailor; parents, as far as he is aware of it, have never suffered from scrofula. Seven brothers and sisters have died, though he does not know of what diseases; the only brother now living is scrofulous. The patient suffered until his fourteenth year from scrofulous eruption on the head, with swollen glands in the neighbourhood of, and under the chin. Cured of this, the glands in seven weeks began to swell, particularly in cold weather. In his twentieth year he became a soldier. Shortly afterwards, he suffered from ophthalmia, and was during three months in hospital. After six months he was again attacked with ophthalmia; so that in the space of two years it occurred four times. In 1833, having left the military service, he began to exercise his trade; from this time, he was never free from the affection of his eyes, by which the cornea of the left eye has become opaque. After he had been treated with every known antiscrofulous remedy, with the exception of cod liver oil, he was placed under my care; his state was the following :---

The scrofulous diathesis strongly marked; lymphatic temperament. The right eye healthy; the lids of the left eye red and tumid; the lashes for the most part are gone; the vessels of the conjunctiva much injected, plexus of vessels are seen running from the angle of the eye to the cornea, and there forming a ring; the cornea is opaque with a pustule upon it; purulent secretion; inereased flow of tears; intolerance of light; imperfect sight. Appetite good, evacuations irregular; respiration natural, pulse slow; disturbed sleep.

1st June.—The inflammation increased; great intolerance of light; constipation, for, which, on the 29th of May, an infusion of senna and tamarinds was prescribed.

15th June.-Inflammation somewhat relieved; two motions daily.

15th July.—Inflammation much less; the purulent secretion, flow of tears, and intolerance of light decreased. Sleep more tranquil.

1st August.-In every respect better.

15th August.—The redness of the conjunctiva much less, and in the external angle almost gone, as well as the intolerance of light and secretion of tears.

1st September.—Since the 28th of August, after exposure, all the symptoms were again increased; the right eye, hitherto healthy, was sympathetically affected; burning pain in both eyes, particularly in the left. Application of cold water to both eyes.

15th September.—Since the 7th, the right eye is again restored; the left is also better; the opacity and the pustule on the cornea, however, are again increased; pain nearly gone; appetite is good; cold water applications discontinued.

1st October.—Inflammation becomes daily better.

15th October.—The inflammation has almost ceased; no unnatural secretion of tears.

lst November.—The redness of the conjunctiva decreases daily; it is not so, however, with the opacity and pustule of the cornea.

15th November.—The general appearance improved; the inflammation, and intolerance of light removed. Digestion normal.

On the 1st December.—With the exception of the opacity and speck on the cornea, quite healthy.

15th December.—The sight of the left eye is affected by the opacity and speck on the cornea, otherwise he is quite well. He has taken the cod liver oil seven months; he has never since been subject to inflammation of the eyes.

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12.—Scrofulous Caries.

DIRK VENENDAAL (9 years of age).—Both parents were scrofulous. All six children are affected with swelling of the cervical glands, as well as those at the back of the head. One patient was cured of these swollen glands in his fourth year, and, although delicate, since that period had been healthy. In November, 1839, he was seized with an illness, the name of which he did not know; all he remembered was, that he had lost his appetite and his accustomed sleep; he was under treatment for it during nine months, and when restored he remained well for nine months; there however existed in his left knee a pain which soon became worse, and prevented his walking. Brought to the hospital, he was immediately cupped on the knee, which was repeated after three days; he then lost the pain. After eight days the scarified wounds suppurated, which at the commencement secreted a thin matter, after which they all healed, with the exception of two on the inner side of the knee; these increased daily, and became deeper, with raised edges, discharging a great quantity of thick yellow pus.

Dr. van der Steen, who saw the patient daily, discovered, after eight days, caries in the thigh-bone, and treated him with antiscrofulous remedies, and for a short period with cod liver oil. The patient, not wishing to submit to the proposed amputation, was placed under my care.

On the 27th May he showed the following appearance:—A decided scrofulous habit; cachectic appearance; the legs, hands, and arms very attenuated; the belly swollen. In the neighbourhood of the knee were the cicatrices of the former ulcers; in the inner and under part of the thigh there are two sinuses, which on the slightest pressure discharge a great quantity of thick, yellow, fetid matter. The probe passes easily between the muscles to the back part of the thigh. In the upper sinus I discovered caries of the bone. The feet were œdematous. The patient was unable to stand, but suffered no pain. Appetite small; digestion disordered; diarrhœa; the respiration towards the evening accelerated. Pulse slow, weak; hectic fever; sleep disturbed; weakness considerable.

15th June.—The evacuations less liquid.

1st July.—The discharge of pus diminished; sleep less disturbed.

15th July.—The belly soft and less swollen; appetite somewhat better.

1st August.—The complexion better; digestion good; evacuations three times daily; faces soft.

15th August.—The ulcers are contracted; discharge continues, and is fetid. Caries is still felt by the probe.

1st September.—The general appearance much improved ; hectic fever diminished.

15th September.—Strength perceptibly increased.

1st October.—The appearance improving; discharge has lessened. 15th October.—The hectic fever better; appetite good; evacuations twice daily; fæces soft. The spirits and the strength improve. A little wine ordered daily.

1st November.—The patient is getting daily better; the ulcers very much contracted; the discharge considerably less, as well as the fever; sleep tranquil. 15th November.—The upper sinus is granulating; the ædema of the legs has nearly disappeared; appetite and strength increased; evacuations daily; fæces soft.

1st December.—The complexion good; the general appearance decidedly better; appetite and digestion good; the strength so increased as to allow the patient to stand alone.

15th December.—The arms and legs have again become fleshy; the œdema has disappeared; the discharge very little. No caries is discovered by the probe.

1st January.—Discharge slight; the remaining sinus nearly healed; pulse natural; the patient walks with the help of a stick.

15th January.—The sinuses are closed; better appetite; good digestion; evacuations regular; appearance good; strength improves; the patient can walk better.

1st February.—The patient was perfectly cured in eight months.

13.-Scrofulous Rachitis.

JOHANNA VAN DOMMELEN (3 years of age).—Parents had always been healthy, although both had been afflicted in their youth with scrofulous swellings in the neck. She had twelve sisters, seven of whom had died,—two of small-pox, five of difficult dentition. All the children had suffered from scrofulous enlargement of the cervical glands, and two from eruptions on the head.

The patient ran alone at two years and three months, daily became stronger, and could walk without assistance; three months since, however, the mother remarked that the child became weaker on its legs; the appetite was unaffected,—the child ate, as before, nothing but potatoes and black bread; she became weaker and weaker until she could neither stand nor walk, and the belly became swollen and hard. The mother brought her to the hospital on the 25th of April, and placed her under my care.

The state of the child was this :--light hair, blue eyes, round face; the nose somewhat swollen and ulcerated, the upper lip not swollen: sound teeth; the glands of the neck enlarged, but not painful; the arms thin; the belly large and hard, ulcer on the organs of generation; the knees somewhat swollen, the shin bone slightly curved; the ankle joints enlarged; appetite good, digestion often disordered, acid eructations; sometimes vomiting of sour matter, irregular motions, hard fæces, respiration normal, pulse slow; at one time wakeful, at others sleepy; the voice hoarse; inability of keeping the erect posture.

1st June.—The sores about the nose were healed, the voracious appetite was diminished; the sour vomiting was less frequent, the motions regular; the sleep more tranquil.

6th June.-The vomiting ceased ; the sleep quiet, no drowsiness.

15th June.—The swollen glands in the neck are less hard, the belly softer.

1st. July.—The glands are by one-half smaller, the belly soft and far less swollen, the sores on the genitals healed; the digestion natural; for some days the strength of the feet has increased; the patient attempted to stand.

15th July.—The swollen glands have disappeared; the belly soft, and not the least increased in size; the enlargement of the ankles is almost entirely removed. The patient stands steadily on her feet, and runs with the assistance of the mother.

Ist August.—The general appearance is good : the arms and legs have become more fleshy ; the reproductive functions are natural ; the patient has to-day, for the first time, run without assistance.

15th August.—The appearance and the functions are natural; the patient runs as before. She has taken the cod liver oil for three months and a half, and is considered perfectly cured. Up to this time she has remained quite healthy.

14.—Scrofulous Swelling of the Subcutaneous Glands, with Amenorrhœa.

CORNELIA VAN ROSSUM (17 years of age).—Neither parents had ever suffered from scrofulous affections; the mother was sometimes subject to rheumatism. The patient was scrofulous in her childhood. In her sixteenth year she first menstruated, which returned regularly every fourteen days; after six weeks it discontinued, and since that never returned again. One month after this the patient felt unwell. Two months after, a small swelling arose under the left ear; it was only painful during four days, nevertheless, it increased daily in size. She entered the hospital in 1841, where the swelling was taken for paroditis, and she was recommended to keep it warm, and at the same time to rub in the mercurial ointment. The patient pursued this course until the 23rd April with little success, and on that day was given over to my charge.

She was of phlegmatic temperament; the swelling in the neighbourhood of the left parotid extended two inches backward, three inches and a half below, and one inch and a half forward. It was hard and insensible to the touch. Besides this, there was an enlarged lymphatic gland on the same side, which could be separated from it under the skin. The whole of the left cheek was inflamed, but not hard; the lower part of the belly felt tumid and hard. The appetite bad, the digestion regular, motion once a day, the respiration and the pulse regular; menstruation had ceased; occasional cholicky pains, particularly in the lower bowels, combined with mal-aise and giddiness; sleep tranquil.

15th May.—Since the 10th of this month the cellular membrane in the neighbourhood of the swollen gland had become inflamed. For some days past she has suffered from frequent headaches and increased giddiness. Poultices were applied.

1st June.—On the 18th ultimo, fluctuation was detected, and on the 20th the abcess was opened with a lancet, giving vent to a great quantity of yellow thick caseous matter, after which a slight discharge continued. Since the 23rd, the pain in the inflamed spot has ceased; the edges of the wound are raised. On this day the menstruation again returned; the cholicky pains, the mal-aise, and giddiness, are diminished.

15th June.—The swelling of the parotid is smaller by one half; the wound has contracted; the edges less raised: the caseous discharge diminished. Since the fourth of June, no more poultices were applied; the belly is softer; the appetite improved; the sleep more tranquil; the headache entirely removed.

Ist July.—The tumour is much less; the wound nearly closed by granulation; the swollen lymphatic glands smaller and soft; the appetite reduced; the nausea is removed. On the 19th June the menstruation again returned; there is very seldom giddiness. 15th July.—The wound is cicatrised; the swollen lymphatic glands have almost disappeared; the surrounding swelling is entirely gone; the belly soft, and reduced in size; the digestion good; no giddiness or nausea.

1st August.—On the 21st July she again menstruated, and is regular in every respect; the patient has used the cod liver oil for three months and is perfectly restored.

15.—Scrofulous Swelling of the Subcutaneous Lymphatic Glands.

ANTHONY GESINK.—Aged eight months; the mother suffered as a girl, from abscess of the cervical glands, of which she still shows the cicatrix; the father was always healthy. A second child was rachitic, and died at two years old. Our patient was reared on its mother's milk from the first month; and was likewise fed on potatoes and black bread. Before it was two months old, the mother remarked that the glands under the chin, at the back of the neck, were swollen, as also the arms, hands and face. The mother came on this account to the hospital, and placed the child under my care.

The head was larger than natural, eyes brown, the nose broad, the face puffy, the glands under the chin and back of the head swollen, the chest well formed, the belly tumid and hard. The child took the breast with great avidity, and at times other food. as we have before mentioned. Sour eructations, vomiting with pain in the lower bowels; the motions irregular, fæces smelt sour. The respiration and pulse normal, the sleep unquiet.

15th May.-The evacuations regular, but still of sour smell.

1st June.—Sleep somewhat more tranquil.

15th June.—The swollen lympathic glands softer and more detached; the belly far less hard; the vomiting sour; eructations and pain in the bowels are diminished.

1st July.—The swelling of the lymphatic glands nearly gone; the belly less tumid and much softer, the evacuations regular; the sleep tranquil. Since the 18th of June the puffiness of the face, the arms, and hands were no more remarked.

15th July.—The swelling of the glands no longer exists; the belly normal, the evacuations regular,

The patient was cured in two months and a half, and has since been perfectly well.

16.—Scrofulous Rachitis.

MARIA VAN WYK.—Two years and five months old ; the father has always been healthy ; her mother, however, and nine brothers and sisters, have suffered from scrofula. The patient has been vaccinated ; she has had none of the diseases incidental to childhood ; she was suckled a year and a half ; then had pap, and afterwards broth and potatoes. Before she was weaned, she could already stand, and in the second year she could get about with the assistance of surrounding objects. Later, however, her strength failed her, she was unable to stand, and the belly began to swell, the mother then brought her to the hospital, and placed her under my care.

The head is well formed and covered with hair, which is blond; the face full and round; the eyeli !s darker than the hair, the lashes long and brown; the alæ of the nose swollen, the complexion pale; the neck delicate, having many small moveable glands under the skin; arms and hands thin, the muscles flabby, the chest well formed, the belly swollen and hard; the thighs attenuated, the shin bones curved outwards, the vertebræ, particularly the last dorsal and the first lumbar, inclining to curvature.

Appetite good (the child had eaten potatoes to the last); tongue covered with white fur, sour eructations; motions regular, soft and brown. Respiration natural, pulse slow; voice rough, can scarcely stand or walk; stomach painful on pressure, sleep disturbed.

15th June.—The sour eructations less frequent.

1st July.—The belly neither so swollen nor hard; the sleep more tranquil.

15th July.—General appearance better ; glands less swollen ; no craving for food, belly not so painful.

1st August.—The glandular swellings in the neck have disappeared. From the 23rd to the 26th July she suffered from diarrhœa, having five or six motions daily; she had continued the oil notwithstanding.

15th August.—The arms and legs more fleshy; general appearance much improved; three motions daily, appetite good.

1st Sept.—The belly soft, less swollen, and not so painful; the digestion in good order.

1st October.—The patient has attempted to stand ; the strength in the feet increases.

15th October.—Since the 7th of this month the patient has been able to stand, and since the 13th she walks as she did before, holding on surrounding objects.

1st November.—The patient has become fat ; strength increases daily ; all the functions in a healthy state. The cure has been effected in five months and a half. She has been ever since healthy, can run, and the slight curvature of the vertebræ has disappeared.

17.—Scrofulous Rachitis.

PETRONELLA DE BRUNI.—Two years and a half old ; father and mother scrofulous ; out of four children who were still living, two were healthy ; a boy, however, suffered for two years from otorhœa and swelled glands of the neck, and the mother remarked that our patient had fallen away during the past nine months. This child was nursed for one year, and then was fed on pap, black bread and potatoes. In the thirteenth month the child began to run, and continued doing so for a whole year, being quite healthy. She had been subject to no disease, though she suffered from dentition. Nine months since, however, she began to grow thin, the skin became yellow, the child could scarcely stand, there was no question about walking. On the seventh of May, the following notes were taken.

Large head, with scarce any hair, which was blond ; eyes bright brown ; the nose thick and swollen, as well as the upper lip ; four decayed teeth ; face pale, glands in the neck enlarged ; arms thin and flabby, the skin wrinkled and hanging about her body ; chest well formed ; belly hard and swollen ; the vertebræ of the spine soft and curved, particularly in the region of the three lower dorsal and two upper lumbar ; the thighs thin and muscles flabby ; the knee-joint somewhat swollen. Appetite good, particularly for potatoes, black bread, and cheese. The digestion often disturbed ; sour eructations, vomiting, irregular motions, cholicky pains ; at one time constipation, at another diarrhœa. Respiration and pulse rapid ; sleep disturbed.

1st June .- Four evacuations daily ; faces fetid and slimy,

15th June.-Cholicky pains less frequent. all - Jargu A det

1st July.-Less craving for food ; vomiting not so frequent.

15th July.—The appearance improved; motions irregular; sleep not tranquil.

vomiting and sour eructations less frequent; sleep still disturbed.

15th August.—The glands of the neck not so swollen, as is also the case with the belly; the general appearance improved; the evacuations regularly twice a day.

1st September .- The belly soft and not painful.

15th September.—The swelling of the glands is daily disappearing; the appetite for food, natural; the digestion good.

1st October.—Digestion healthy; neither the belly nor glands are any longer swollen.

15th October.—The countenance improved ; the strength increases ; the patient attempts to stand. 1st November.—Since the 22nd October the child begins to run, with the assistance of the mother.

15th November.—The child is quite fat ; runs as before, although it is disposed to fall. The cure has been effected within six months. She has continued healthy.

18.—Scrofulous Rachitis.

WILHELMINA VAN LUIN (One year ten months old).—The mother died of low fever, and, according to the account of the grandmother, was very subject to scrofula in her youth, so that she constantly required surgical assistance on account of tumours on her head and neck. The father was never scrofulous, but suffered from rheumatism. The patient was nursed for one year, when she was fed on broth and potatoes. Three months after this change of diet the belly became swollen and hard. The child, who at thirteen months could stand with assistance, has so completely lost her strength, that she can scarcely keep herself upright on the floor, and she can no longer use the hands with which she was in the habit of feeding herself; in consequence, she was placed under my care.

On the 29th of May the following notes were taken :--The head not very large; profusion of blond hair; long brown lashes; dilated pupils: nose swollen: fat cheeks; ruddy complexion; enlarged glands under the chin; arms thin; chest well formed; belly large and hard; curved spine; thighs thin and muscles flabby; ankles swollen. Appetite voracious; digestion often disordered; sour eructations; sometimes vomiting and spasms; one motion daily; faces slimy. Respiration hurried; pulse slow and weak; disturbed sleep. 1st July .--- Complexion improved. A privormal --- daugu A del

15th July.—The glands in the neighbourhood of the chin less swollen ; vomiting and sour eructations the same.

1st August.—General appearance better; the belly not so large; vomiting and spasms less frequent.

15th August.—Extremities filling out : digestion good ; sleep more tranquil.

1st September.-Digestion continues better ; the face fuller.

15th September.—The swelling of the glands has disappeared; no spasms.

no spasms. 1st October.—The belly soft, reduced in size; pulse regular; digestion good; muscular power increased.

15th October.—The general appearance daily improves; the ankles no longer swollen.

1st November.—The frame well nourished; digestion restored; sleep tranquil; is enabled to stand with assistance.

15th November.—The patient is perfectly restored. The cure has occupied five months and a fortnight.

19.-Scrofulous Rachitis.

WILHELMINA ROLLMANS ($6\frac{1}{2}$ years old).—Both parents were scrofulous. The father died of a rheumatic affection; the mother has suffered from chronic inflammation of the eyelids for twenty years. Of three children, two died early; the third, our patient, when one year and a half old, was affected with an eruption on the head, which was readily cured with fresh butter. She only first began to run when three years old : and even from the first year she was thin, and complained of griping; the belly was large and hard. Before three months the cervical glands began to swell; increased daily; the skin inflamed, and scrofulous ulcers were formed.

On the 30th of May, when she was placed under my care, she presented the following appearance :—Blond hair; brown lashes; blue eyes; small, thin, pasty face; many of the cervical glands swollen, with three ulcers on the neck. The chest contracted; arms and legs very much attenuated; the shoulder-blades raised; the belly large and hard; the long bones slightly curved; the ankles swollen. Appetite good, even voracious; sometimes griped; irregular evacuations; any motion of the body attended with pain; excessive night sweats; no muscular power; sleep restless; occasionally slightly convulsed.

15th June.—The sleep more tranquil.

1st July.—The cervical glands, as well as the belly, less swollen; the gripings diminished; the voracious appetite less.

15th July. General appearance improved ; the ulcers on the neck are cicatrising ; digestion better ; the night sweats have decreased ; muscular power greater.

1st August.—Improving daily ; belly soft and reduced in size ; evacuations regularly three times a-day ; faces soft, seldom any griping ; ulcers nearly cicatrised.

15th August.—The swollen glands have altogether disappeared; the ulcers are cicatrised; size of ankles reduced; digestion good; night sweats have nearly ceased; the muscular power is increased; the sleep is no longer convulsed.

1st September.—The gripings have ceased ; the muscular power improves ; sleep tranquil.

15th September.—The countenance is full and healthy; belly natural in size; the swelling of the ankles much decreased; the functions are restored. The patient was cured in three months and a half.

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20.--Scrofulous Atrophy of Children.

JOHANNA FLAAT $(1\frac{1}{2}$ years old).—Father and mother scrofulous. She was one of two children, the son had always been healthy; the daughter was also healthy as long as she was nursed by the mother, her body being well nourished and well formed. After she was weaned she fell off, and the glands in the neck and groin swelled. The emaciation increased daily; the belly became harder and larger, and the strength was so diminished that she could not support herself, and was obliged to be carried. The mother now sought my advice.

On the 2nd of June the patient showed the following appearances :--Light hair, blue eyes, with long brown lashes; thick nose, face much reduced; the under part of the chin much developed; numerous glands on the neck, which were felt moving under the skin; arms and thighs emaciated, the skin wrinkled, and the body reduced literally to skin and bone. The belly large and very hard. Appetite voracious; the child ate nothing but potatoes and black bread; sour eructations; motions twice and three times a day; the fæces liquid. The respiration and pulse accelerated; muscular power very much diminished; voice shrill; sleep disturbed.

15th July.—The general appearance improved ; appetite less depraved.

1st August .- The respiration and pulse slower.

15th August.—The belly softer ; fæces more consistent ; sleep more tranquil.

1st September.—Glands less swollen; general appearance better; sour eructations not so frequent.

15th September.---Improving ; voice stronger, and less shrill.

1st October.--Still improving; digestion good; pulse and respiration almost natural.

15th October.-Muscular power much increased.

1st November.—Daily improving; digestion healthy; evacuations twice daily; faces soft; sleep tranquil.

15th November.—The swelling of the glands entirely gone ; muscular power increasing daily ; voice again natural.

1st December.—Healthy complexion ; digestion normal. Since the 19th of November she has been able to stand with the assistance of her mother.

15th December.—Perfectly healthy appearance; functions natural; the muscular power so increased, that the patient can walk with the assistance of her mother. The cure has been effected in six months and a half. She has since continued healthy.

21.—Chronic Rheumatism.

HENRIETTA H. — (20 years of age). — Neither father or mother have ever suffered from rheumatic affections. In infancy, however, the mother was scrofulous. Out of thirteen children, three died of rachitis; the others had all suffered in their childhood from swollen glands in the neck, and eruptions on the head; which, however, were cured by the application of various ointments.

At the age of five years, our patient was free from disease, and was perfectly healthy until her seventeenth year. From this time she was seized with headache and lassitude. In her nineteenth year she first menstruated, and has ever since been regular. Shortly after the appearance of the menses, the first attack of rheumatism came on. The ankle swelled, and increased daily with insupportable pain. The cause of the seizure was evident; for she was in the habit of standing at her work with naked feet, hot and perspiring, on a cold floor, in order to cool them.

On the application of leeches the pain and swelling diminished, although there still existed slight pain. A short time afterwards, a second attack occurred from the same cause. By cupping and sudorifies, the violent pain was relieved. A fresh attack was afterwards brought on by fatigue in dancing and exposure to cold, which, however, was checked by rest and warmth. Three weeks after, she suffered from another relapse in consequence of fatigue; there was now, however, not only pain in the feet, but she also complained of pains in the arms and back. On the 26th of April the father informed me of the state of his daughter, at the same time begging me to place her under treatment with Cod Liver Oil. She presented the following symptoms :—

Delicate constitution ; sangaine choleric temperament ; black hair and eyes ; fair complexion ; the hands swollen above the wrists, as well as the feet, which were swollen above the ankles. The hands and feet very painful, and hot, though not red; both feet perspiring greatly; pains in the back and side; scarcely able to move; the appetite diminished; the tongue clean; evacuations irregular; respiration and pulse normal; sleep quiet.

15th May.—The swelling of the hands and feet have disappeared; two natural motions daily; the pain in the feet and wrists less; that in the shoulders and side relieved; sleep tranquil.

1st June.—Continual improvement; the pain in the back gone, and less in the feet; the motions of the hands free, those of the feet still impeded; the heat of the skin in the hands natural; great perspiration of the feet, with an offensive smell; the appetite and sleep better.

15th July.—All pain and swelling removed; the perspiration of the feet, as before, considerable; all the functions natural. On the 10th, she was declared well; consequently, the cure was effected, by means of the Cod Liver Oil, in the space of forty-one days. She was advised to wear woollen drawers and stockings, and she continued healthy.

rollows most bood 22.—Chronic Rheumatism.

CORNELIUS ARNAAT (38 years of age ; shipwright).—His father from his fortieth year, suffered from rheumatism ; died in his seventieth year from Asiatic cholera ; the mother, eighty-one years of age, is still alive, and has always been healthy. He has two sisters, of whom one has been rheumatic for many years, and since her infancy has suffered severely from scrofula. Our patient enjoyed good health until he was twenty-nine, and then began to suffer severe pains in the left hip. From that time the pain never ceased, and generally once a year, particularly in the autumn, was so severe, that he was obliged to give up all work and lie in bed. According to his account the diaphoretic treatment had been adopted. The state of the weather of this spring, constant rain, accounted for his being suddenly seized on returning from his work with such acute pain, that he was not only obliged to keep his bed, but after some days he sought my advice.

On the 14th of May I found the patient lying in bed on the right side; he was of a pretty strong constitution and choleric temperament. Acute pain in the left hip; there was nothing to be remarked externally; the heat of the bed increased the pain; he was scarce able to move; no appetite, the tongue furred; bowels acted once daily. Sleep disturbed; respiration and pulse normal. Ist June.—Appetite better; motions twice daily; pain somewhat abated; can move more easily.

15th June.—Sleep more tranquil. Yesterday for the first time he rose from his bed; still the pain is so acute that any movement is impossible.

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July 1st .- Digestion good ; pain continues.

July 15th.—The patient can walk ; the pain is nearly gone ; the digestion is good.

August 1st.—The pain is removed ; unrestrained motion of the limb ; function restored. Since the 23rd of July he has returned to his work. He was cured in two months and eight days.

23.—Chronic Rheumatism.

ELIZABETH DE MAU (aged 77).—She suffered in her youth from scrofula, and, since her thirtieth year, from rheumatic pains, which were so severe as often to confine her to bed; in the latter years the pains in the legs became worse. Diaphoreties and blisters were used with some success in the very acute attacks, but still they were unable to remove the pain entirely. In this year the attacks were oftener repeated, and on the 31st May her state was this:—The patient lay in bed, which she had not left for many days; strong frame of body, choleric temperament; frequent pains in both shoulders, and in the right hip, extending to the knee; pain much increased on motion; the arms moved with difficulty; impossibility of raising the right leg. Appetite good, digestion and respiration normal, pulse slow, skin cool, no sleep.

15th June.—Sleep better.

1st July.—Pains diminished.

15th July.—Since the 12th, pain severe, particularly in the right hip; the appetite somewhat impaired.

1st August.—Since the 19th July, the pains have abated; arms are moved better; since the 23rd the patient has risen from her bed; the digestion somewhat disturbed; four evacuations daily; fæces soft.

15th August.—The pain is diminished in both arms, which are moved easily; pain in the right hip less; appetite better; digestion good, two motions daily.

1st September.—The pain in the right hip is removed; the motions of the limbs are now unrestrained; sleep tranquil; digestion good.

15th September.—No pain, the limbs are quite free; the functions of the body natural. The patient was cured in three months and a half.

aitangelig to a 24.-Tinea Granulata.

CORNELIUS VAN SCHOONHOVEN (1 year old).—Both parents were scrofulous in their youth. The patient has been nursed and fed with pap and broth; has not yet been vaccinated, and has not had any of the infantile diseases. Has always been healthy. About two months ago, an eruption appeared on the head, White vesicles formed, which burst and discharged an acrid, watery fluid. which hardened into scabs; these scabs being daily washed off with soap and water, there remained behind red spots ; the disease soon again resuming the same course. The mother brought the child to the hospital on the 8th of May, when it was placed under my care.

The head of the child is unusually large; the hinder part being peculiarly formed, being more prominent on the right than on the left side; bald in some places, in others the hair scanty, and matted together with yellow crusts, extending over the whole head, particularly on the forehead, and which, separating slowly, expose shining red spots-on some of which are seen round pustules.

Large blue eyes; nose swollen; sores on the alæ of the nose, the face pale; the glands in the neck and under the chin, swollen; the belly hard ; joints healthy. The digestion often disordered ; sour eructations, sometimes vomiting; respiration normal; pulse slow; sleep disturbed.

1st July .- The sores on the nose healed.

15th July.-The belly less swollen and hard; the digestion better ; vomiting seldom occurring.

1st August .- The glands under the chin no more swollen ; the belly soft ; cholicky pains not so frequent.

15th August.—Within the last eight days the head has become much cleaner ; sleep tranquil.

1st September .- The head cleaner ; no fresh pustules ; digestion good ; sleep tranquil.

15th September.—The healing progresses slowly.

1st October .- The improvement is decided ; all the crusts have fallen off; no new pustules have formed; the new hair is growing; no cholicky pains; the digestion and sleep good.

15th October.-For the space of one month, no fresh pustules have formed; the hair is growing profusely; all the functions in order. The cure has been effected within five months.

25.-Tinea Favosa.

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JANSKE KLOET (14 years of age) .- Nothing deserving notice requires to be mentioned with regard to the parents. The patient from the earliest years had suffered from an affection of the glands of the neck. In the sixth year she first became the subject of tinea; external and internal remedies were prescribed in vain. The hair was even removed without benefit,

27th May .- She came under my care; she is of phlegmatic temperament, of apparently good constitution, but of a decided scrofulous habit, suffering from tinea; appetite and digestion natural, as well as the pulse and respiration; excretions and secretions healthy; sleep tranquil.

15th August .--- Head somewhat cleaner.

15th September .--- The improvement of the head very evident.

1st October .- The head continues better; the eruption is not reproduced.

18th November.-The greater part of the head is free from disease.

15th December .- The head is quite clean; the hair is beginning to grow again; the cure was effected in six months and a half.

26, --Asthma

MR. R.-Druggist at the Hague, of delicate constitution and lympathic temperament, had suffered during his childhood from slight scrofulous affections, and as long as he could recollect he had never been able to lie on his back, nor on his right side. Being afflicted with asthma of the severest kind, he invariably awoke with extreme oppression upon the chest when, during his sleep, he did not remain constantly lying upon the left side. Previously he had only suffered from an attack of asthma once a week. The patient did not derive any sensible benefit either from frequent bleedings, or from the application of various remedies, such as the extract of hyosciamus, cicuta, tar-water, datura stramonium and different mercurial and antimonial preparations. The attacks, which had been less frequent during the latter years, became more acute, and often lasted for several days. They always terminated in abundant expectoration of mucous sputa.

In January, 1851, the patient, being seized with a similar attack, placed himself under my care. The fever was violent. I prescribed the extract of hyosciamus, cherry laurel water, and digitalis. The attack this time lasted six days, and left the patient very much exhausted.

A few days after, I prescribed Cod Liver Oil, of which the patient took regularly, during three months and a half, two table-spoonsful daily.

Since this period, not only have the attacks of asthma altogether ceased, but the patient is able to lie on his back and on his right side without his sleep being in the least disturbed.

Sea bathing, during the summer of 1851, has greatly augmented the physical strength of the patient.

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15th September .- The improvement of the head very evident TESTIMONIAL DOCUMENTS.

Twill Marginher - The month' part of the head is free from

Introductory Letter from BARON DE WAHRENDORFF, Chargé-d'Affaires of Sweden and Norway at the Court of the Netherlands.

[Translated from the French original.]

Dr. de Jongh of the Hague (the author of a work bearing the title of "Disquisitio comparativa chemico-medica de tribus olei jecoris aselli speciebus," the dedication of which Her Majesty the Queen of the Netherlands has graciously deigned to accept), intending to undertake a scientific expedition to Norway, and particularly to Bergen, in order to acquire further information concerning the subject he has treated, and that on the very spot where the fishery is carried on, has expressed to the undersigned the desire of being provided, not only with the official visa of the legation of Sweden and Norway, but also with a special recommendation to the authorities of those realms, whose assistance he might stand in need of for the furtherance of his views. It is therefore in the interest of science that these letters have been granted to him, and the undersigned has hereby the honour of requesting the government and scientific authorities of Norway to afford the Doctor their most cordial support, The Chargé-d'Affaires of Sweden and Norway, (Signed) BARON DE WAHRENDORFF.

The Hague, July 7th, 1846.

Certificate from the late CONSUL-GENERAL OF THE NETHERLANDS at Bergen. at Bergen. In [Translated from the Dutch original.]

The undersigned, Consul-General of the Netherlands at Bergen, declares that Dr. de Jongh of the Hague has been at Bergen for the purpose of making investigations and analytical examinations of the different cod liver oils, as likewise for researches in order to discover the means of ensuring a continual supply of the pure and unadulterated oil of the Dorse-liver. This object having been attained, the undersigned has most willingly taken upon himself the care of forwarding to Dr. de Jongh the said oil, and in order to avoid all possibility of mistake the undersigned will address them to the Doctor under his seal of office.

(Signed) D. M. PRAHL.

Bergen, Aug. 9, 1846.

Certificate from the CONSULAR AGENT OF FRANCE at Bergen. [Translated from the French original.]

The undersigned, Joachim Friele, Consular Agent of France in this city, declares that Dr. de Jongh of the Hague has been here in order to derive information concerning the oil considered as most efficacious by the Faculty of this place, and that he has moreover contracted such engagements as will ensure him a continual supply of the oil he has given the preference to, in its most pure and unadulterated state. (Signed) JOACHIM FRIELE.

Bergen in Norway,

Aug. 10, 1846.

Certificate from the AUSTRIAN CONSUL at Bergen.

[Translated from the German original.]

We, the undersigned, do hereby declare that Dr. de Jongh, of the Hague, has been engaged during his residence at Bergen in a series of chemical and therapeutic investigations concerning the different kinds of cod liver oil, and that on our side we have done everything in our power to be of use to the learned Doctor in his important labours. (Signed) MICH. KROHN & Co.

Bergen in Norway, Aug. 13, 1846.

Certificate from the SPANISH CONSUL at Bergen. [Translated from the French original.]

The undersigned declares that Dr. de Jongh, of the Hague, has been engaged during his residence at Bergen in finding out the means of ensuring a continual supply of the pure and unadulterated cod liver oil, of the kind he considers most efficacious, and that his investigations, wherein I have rendered him all the assistance in my power, and the high importance of which in a medical point of view cannot be overlooked, have been, according to my opinion, erowned with the greatest success.

Bergen, Aug. 8, 1846 maintel pair and balanart a

(Signed) CARL KONOW.

Certificate from the NEAPOLITAN CONSUL at Bergen. [Translated from the French original.]

We, the undersigned, declare that Dr. de Jongh, of the Hague, has been here engaged in scientific researches concerning the different kinds of cod liver oil, in which researches we have lent him all the assistance in our power. Having likewise applied himself to the means of procuring the most efficacious kind in its pure and unadulterated state, we have no hesitation in affirming that he has met with them in the engagements he has contracted here.

Bergen, Aug. 10, 1846. (Signed) AUG. C. MOHR & SON.

Certificate of the most Eminent Physicians at Bergen.

[Translated from the French original.]

The undersigned physicians at Bergen in Norway do hereby declare that Dr. de Jongh, of the Hague has been engaged during his residence at Bergen, in chemical and therapeutic researches, concerning different kinds of cod liver oil, and that they have done all that lay in their power to be useful to this physician in his learned but arduous investigations, which amongst others had for their object to determine upon the most efficacious kind of cod liver oil.

(Signed)	DR. C. HEIBERG, Stadtphysicus.
and or Sur	DR. CHR. WISBECK, Oberartz.
hiertorate:	DR. J. W. MÜLLER, Brigadenartz
VI. Du chlored	DR. J. KOREN, Conservator of the
. 9, 1846.	Museum.

Certificate from the Chemist C. KROHN, at Bergen. [Translated from the French original.]

kinds of cod liver oil, and that on one side we have done everything

The undersigned declares that chemical experiments have been made in his laboratory and in his presence by Dr. de Jongh during the residence of the latter at Bergen. The above-named physician has arrived at the following results, viz.: that the oil of the Dorse liver contains more iodine than that of the Sey, whereas the Herring oil is totally devoid of that element.

and the bar bar (Signed) CONRAD KROHN, Chemist. Bergen, Aug. 11, 1846. herohanne solate fi Transferrar pressent ovar

mr.appretautoide huthmitioning of which in a medical point of

view cannot be overlooked, have buon, according to my opinion Certificate from the present CONSUL-GENERAL OF THE NETHERLANDS woxo H JILO (borni at Bergen.

[Translated from the Dutch original.]

The undersigned, Consul-General of the Netherlands at Bergen in Norway, certifies that Dr. de Jongh, of the Hague, was at Bergen in 1846, where he was engaged in the scientific investigations into the medical and chemical properties of the various descriptions of cod liver oil, and for the purpose of discovering the means of ensuring a constant supply of the genuine and unadulterated oil of the liver of the Dorse. The undersigned has undertaken to affix his consular seal to each cask of this oil, shipped to the said Dr. de Jongh at this port. (Signed) G. KRAMER.

Bettesen Out 1901 Fast

Netherland's Consulate at Bergen in Norway, Mar. 12, 1853.

A WIRLEY YES Bergen, Aug

Letter from the SECRETARY-GENERAL acting ad interim as Minister of the Interior of Holland.

[Translated from the Dutch original.]

The Secretary-General, acting ad interim as Minister of the Interior, has, by order of the King, the honour of informing M. L. J. de Jongh, M.D., at the Hague, that His Majesty has read with great interest the account of his journey to Norway undertaken for the purpose of making investigations concerning the cod liver oil, and has remarked with pleasure his efforts in the cause of suffering humanity. His Majesty has been pleased to express his perfect satisfaction on that account, with the assurance that the results of his investigations shall, according to previously adopted rules, become the object of consideration on the part of Government, in order to meet with an appropriate reward.

The Hague, Oct. 9, 1847. (Signed) G. VOLLENHOVEN. To Dr. L. J. de Jongh, at the Hague.

Letter from the INTENDANT OF THE CIVIL LAST of Belgium. [Translated from the French original.]

SIR—The King has charged me to return you his very particular thanks for the homage done to him, by the presentation of your most valuable researches concerning the cod liver oil : as an expression of his utmost satisfaction, he has given me the order of presenting you with the accompanying large gold medal.

I remain with the highest regard, &c.,

The Intendant of the Civil List, unitedat

(Signed) Conwe. ...

Brussels, October 6, 1847, To Dr. de Jongh, at the Hague.

Letter from BARON JUSTUS LIEBIG, Professor at the University of Giessen, &c.

SIR—I have the honour of addressing you my warmest thanks for your attention in forwarding me your work on the chemical composition and properties, as well as on the medical effects, of various kinds of cod liver oil. You have rendered an essential service to science by your researches, and your efforts to provide sufferers with this medicine in its purest and most genuine state, must ensure you the gratitude of every one who stands in need of its use.

I have the honour of remaining, with expressions of the highest regard and esteem,

Yours sincerely, DR. JUSTUS LIEBIG.

Giessen, Oct. 30, 1847. To Dr. de Jongh at the Hague.

Letter from Dr. FOUQUIER, Professor at the University of Paris, Physician to his late Majesty Louis Philippe, dc. Translated from the French original.]

DEAR SIR AND HONOURED COLLEAGUE-I must begin by thanking you for your polite attention in sending me your works, and must furthermore openly acknowledge that you have rendered an eminent service to science, by acquainting practitioners with the cause of the frequent irregularity in the effects of the cod liver oil, and directing their attention to a proper choice. You have thereby preserved to science the use of a medicine that might have fallen into utter discredit in consequence of its unaccountable inaction in some cases. It is therefore with the greatest pleasure that I pay my tribute of well-merited praise to the successful efforts of the learned physician and chemist, whose researches after truth have cost him so many sacrifices, and who has shown us the way of rendering highly effectual the administration of one of the most powerful medicines we are acquainted with.

Accept the assurance, most honoured colleague, of my sincere expression of gratitude and regard.

(Signed) Fouquier, Paris, Nov. 12, 1847. Physician to the King. vour most valuable researches and printering

Letter from DR. JONATHAN PEREIRA, Professor at the University of London, &c., &c.

MY DEAR SIR-I was very glad to find from you, when I had the pleasure of seeing you in London, that you were interested commercially in cod liver oil. It was fitting that the author of the best analysis and investigations into the properties of this oil should himself be the purveyor of this important medicine.

I feel, however, some diffidence in venturing to fulfil your request by giving you my opinion of the quality of the oil of which you gave me a sample ; because I know that no one can be better, and few so well, acquainted with the physical and chemical properties of this medicine as yourself, whom I regard as the highest authority on the subject.

I can, however, have no hesitation about the propriety of responding to your application. The oil which you gave me was of the very finest quality, whether considered with reference to its colour, flavour, or chemical properties; and I am satisfied that for medicinal purposes no finer oil can be procured.

With my best wishes for your success, believe me, my dear Sir, to be very faithfully yours, (Signed) JONATHAN PEREIRA.

Finsbury Square, London, July Party Y

April 16, 1851. To Dr. de Jongh.

Giessen, Oct. 30, 1847 To Dr. de Jongh at the Hague,

Letter from the MINISTER OF THE INTERIOR OF HOLLAND.

[Translated from the Dutch original.]

boy singuot sh ru hadiment oval The Hague, Feb. 1, 1848. I have the honour of bringing to your knowledge, that it has pleased the King to grant you, by his decree of the 20th January, 1848, No. 101, a silver medal with an appropriate honorary inscription, as a testimony of His Majesty's high approbation for your efforts in securing to this country a supply of the most efficacious cod liver oil from Norway. I have given the necessary orders for the execution of this medal.

-ze eval I doidw notingo adt The Minister of the Interior, account (Signed) VAN DER HEIM. To Dr. de Jongh, at the Hague.

Letter from the DUTCH MINISTER OF THE INTERIOR ad interim. Translated from the Dutch original.

The Hague, May 8, 1848.

In accordance with a communication of my honoured predecessor of the 1st February, No. 36, I have the pleasure of forwarding you the medal which the King has deigned to grant you, as a testimony of his high approbation for your efforts in securing to this country a supply of the pure cod liver oil from Norway.

The Minister of the Interior ad interim. To Dr. de Jongh at the Hague. (Signed) L. M. LUZAC.

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Certificate from DR. E. RIEGEL of Carlsruhe, Grand Duchy Baden. Translated from the German original.

The undersigned declares that he has analysed the cod liver oil of Dr. de Jongh, of the Hague, who has distinguished himself by his chemical and medical investigations of the properties of various kinds of fish-liver oil. This analysis has convinced him that Dr. de Jongh's oil is not only prepared with greater care than the ordinary cod liver oil, but that it contains in larger quantities those principles which are generally admitted to be most active and essential, so that it ought to be considered the most efficacious kind, an vranibro ni lio- re (Signed) DR. E. RIEGEL,

Mitglied der Groszherzoglich Badischen Pharmaceutischen-Prüfungs-Commiswingleans and mailed sion. Director des Deutschen Apotheker - Vereins, Abtheilung Süddeutschland, Vorstand des Pharmaceutischen-Vereins in Baden, Mitglied mehrerer Gelehrten Gesellschaften.

Carlsruhe, June 26, 1851.

Certificate from DR. SEGNITZ of Gelnhausen, Duchy of Hessen.

[Translated from the German original.]

For upwards of two years I have prescribed Dr. de Jongh's cod liver oil instead of that which is generally used in Germany. With the desire of making known the truth, I am bound to state that this oil is greatly superior to all other kinds previously used by me, and that therefore the object aimed at by the use of this remedy is more surely attained by this oil than by any other kind. It is true that, in some cases of scrofula and tubercular diseases, the simultaneous use of this oil with the ioduret of potassium becomes necessary, but this in no way affects the opinion which I have expressed. (Signed) DR. SEGNITZ.

Gelnhausen, July 1, 1851.

Certificate from DR. VAN DEN EYNDEN, Emmerich. [Translated from the German original.]

I have prescribed Dr. de Jongh's cod liver oil for a considerable time with the most satisfactory results; and I can conscientiously recommend it to my colleagues as being superior to all other kinds. (Signed) DR. VAN DEN EYNDEN.

Emmerich, Jan. 22, 1852.

he attender of the Interior ad interim.

DANJ Certificate from the ROYAL POLICE OF PRUSSIA.

[Translated from the German original.]

In answer to your letter of the 2nd ult., requesting permission to sell Dr. de Jongh's cod liver oil in bottles, accompanied with his stamp and signature, the Royal Police of Prussia (Königlichespolizei-Praesidium) has the honour of informing you that it has caused the sample which you have forwarded to be submitted to an official investigation, and that the result of such investigation has proved it to be not only the genuine cod liver oil, but still further that it is of a kind which distinguishes itself from the cod liver oil in ordinary use, alike by its taste and chemical composition. Considering moreover that it has come to their knowledge that physicians generally recommend the use of Dr. de Jongh's oil in preference te the cod liver oil in ordinary use, the Royal Police accedes to your request.

KöNIGLICHES POLIZEI PRAESIDIUM, Berlin, Jan. 23, 1851. To A. M. Blume, Chemist, Berlin.

W. S. JOHNSON, "'NASSAU STEAM PRESS," 60, ST. MARTIN'S LANE, CHARING CROSS.