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27

REPORT

ON THE

EXPERIENCE OF MEDICAL MEN

WHO HAVE USED

"PANCREATIC EMULSION OF FAT."

BY HORACE DOBELL, M.D.,

PHYSICIAN TO THE ROYAL HOSPITAL FOR DISEASES OF THE CHEST, &c. &c.

LONDON:

JOHN CHURCHILL & SONS, NEW BURLINGTON STREET.

MDCCCLXVII.

REPORT

ON

"PANCREATIC EMULSION OF FAT."

The following Editorial note appeared in the Lancet, Nov. 17, 1866:—

"THE DIETETIC VALUE OF PANCREATISED FATS.

"It would be interesting to know to what extent the experience of those medical men who have used the 'pancreatic emulsion' of fat accords with that which Dr. Dobell has now recorded in our columns in about two hundred cases of consumption. Several thousand pounds weight of this new medical agent have, we believe, been supplied by the makers to the order of medical men in this and other countries; and we think, therefore, that the time has arrived when some perfectly impartial evidence should be added to that of the ingenious author of this treatment. The remedy has been placed fairly before the profession, the author reserving to himself no pecuniary interest or advantage whatever; and if the utility of the remedy bears any proportion to the large demand which has arisen for it, we ought to know this clearly, and to understand and appreciate our obligations."

With the sense and justice of this suggestion I entirely agreed, and in order to assist in carrying it out, I obtained from Messrs. Savory and Moore the names of some of the principal places from which they had received orders for Pancreatic Emulsion, and then posted to the leading medical men in those places the

following letter and Schedule of questions.

A 2

I had no other means than this of ascertaining who had used the Emulsion. But it is evident that in this way I must have sent to many who had not used it, and must have failed to reach a large number of those who had obtained it through other wholesale chemists than Savory and Moore, through provincial chemists, and other indirect channels.

[LETTER.]

"84, HARLEY STREET, March, 1867.

- "Dear Sir,—Allow me to direct your attention to the accompanying Editorial note, which appeared in the *Lancet*, Nov. 17, 1866.
- "It is clearly impracticable for any Medical Journal to publish separate reports of all the cases in which the Pancreatic Emulsion has now been used by different medical men.
- "I have, therefore, drawn up the enclosed questions to facilitate the collection of impartial evidence, as suggested by the *Lancet*, in a form in which it can be systematically arranged for publication within a limited space.
- "If you will kindly fill up the enclosed Schedule at your leisure, and send it within one month from this date to the Royal Hospital for Diseases of the Chest, addressed to the Hon. Secretary, I will see that the results are fairly tabulated and published as soon as a sufficient number of reports has been received.

"I am, dear Sir, yours faithfully,

"HORACE DOBELL."

SCHEDULE.

1.—In how many cases of Consumption have you prescribed the Pancreatic Emulsion, prepared by SAVORY & MOORE?	
2.—In what doses, at what interval after food, and for how long a time, did you administer it in each case?*	
3.—What is your opinion of its effects upon 1. Digestion? 2. Nutrition? 3. Weight of the patient?	
4.—Have you found that patients can take the Emulsion when they cannot take Cod-liver Oil?	
5.—What is your opinion of the effects of the Emulsion in 1. The True First Stage of Consumption (Pre-tu-bercular)? 2. The stage of Tuberculisation? 3. The stage of Softening? 4. The stage of Excavation?	
GENERAL	REMARKS.
Date Signa	ture
Adda	ress

* "From inquiries addressed to me, it appears that many medical practitioners are uncertain as to the mode of administering the Emulsion; and I may therefore state that I have found it best to give the dose from one to two hours after a full meal, such as breakfast or dinner, particularly avoiding a longer interval, and also avoiding warm drinks for two or three hours afterwards. When codliver oil agrees, I give a table-spoonful of oil directly after breakfast, to supply olein to the blood through the portal system, and a table-spoonful of Emulsion in a cup of milk or water two hours after dinner, to supply the blood with pancreatised solid fats through the lacteal system. If cod-liver oil cannot be

I have much pleasure in stating that, with three somewhat ludicrous exceptions, my inquiries were received with the greatest courtesy, often with expressions of warm approval of the course adopted to obtain the opinions of medical men; and the answers indicated that liberal spirit so essential to the advancement of science and art.

A large number of the Schedules were returned with a note, either that the sender had no experience to record; or had only used the Emulsion in such a hopeless stage of disease that he did not think he had fairly tested its properties; or that it had been given in only one or two cases, and for too short a time to be worth recording; or the answer was not given in a form in which it could be tabulated.

The gentlemen whose names appear in this report answered the questions on the Schedule with sufficient completeness to admit of tabulation, and their answers are published with the most scrupulous impartiality, whether favourable or unfavourable to my own views. As a number of valuable comments and opinions are expressed by these medical men in their reports, by which their opinions with reference to the Emulsion are emphasised, explained, or qualified; I have not thought it consistent with the object of this inquiry-viz., to obtain the "impartial evidence" suggested by the Lancet—to publish anything less than the exact words in which the evidence is given. I have, therefore, drawn up a verbatim copy of all the answers given in the reports, tabulating them under the headings of the six questions in the Schedule. This has, unfortunately, swollen my report to a size too large for the pages of the Lancet; and in order to redeem my promise that I would see the results of this inquiry "fairly tabulated and published," I am compelled to print them in the present form. A copy will be sent to every

taken, I give the Emulsion two hours after breakfast and two hours after dinner.

"In the very few cases in which the stomach does not easily tolerate the Emulsion, I have found it due, almost as a rule, to excessive acidity of the digestive fluids; and an alkaline powder of soda and calumba, or an effervescing draught of citrate of soda and potass, given before the meal which precedes the dose of Emulsion, has generally overcome the difficulty. It must be borne in mind that some adults cannot digest milk, and in these cases the Emulsion should be mixed with wa'er instead. Brandy or rum may be added in any case, if preferred, and a small plain biscuit should be taken after the dose."—Lancet, Nov. 17, 1866.

medical man who responded to my letter; and any other medical men interested in the subject will be able to obtain copies from the Publishers, Messrs. Churchill, New Burlington Street.

On a careful examination, it will be found that the experience of the effects of the Pancreatic Emulsion of Fat, as expressed in this report by a number of perfectly independent observers, corresponds in a remarkable degree with the results of my own investigations and experiments already published.* It will also be observed—and it is an important fact—that the greatest confidence in the remedy is expressed by those who have given it in the largest number of cases.

Note.—I shall be happy at any time to receive notes of the experience of medical men in the use of Pancreatine and Pancreatic Emulsion, for insertion in future editions of this Report. But the notes should be arranged under the six headings of the Schedule here given.

^{*} See Lancet, Sept. 10th, 1864; June 10th, 1865; Nov. 11th and 18th, 1865; Nov. 17th, 1866. British Medical Journal, Jan. 20th, and Feb. 20th, 1866. "On Tuberculosis; its Nature, Cause, and Treatment," Churchill, 1866. "On the true First Stage of Consumption," Churchill, 1867.

SIGNATURE, ADDRESS.	1.—In how many cases of Consumption have you prescribed the Pan- creatic Emulsion, pre- pared by Savory and Moore?	2.—In what doses, at what interval after food, and for how long a time, did you administer it in each case?	3.—What is you of its effects Digestion? tion? 3. Wei patient?
1.—T. SMITH ROWE, M.D., Margate.	Five.	A large teaspoonful twice a day, between meals, from two to eight weeks.	1. Improved. 2 & 3. Marked ment, with it weight.
2.—G. B. Cornish, M.D., East Street, Taunton.	Six.	One tablespoonful three times a day, at or shortly after meals.	In four cases the improved in and in the taking a large tity of food.
3.—T. CLIFFORD ALLBUTT, M.A., M.B. Cantab., Park Square, Leeds. (See Letter, p. 23)	At least 100, probably much more.	One tablespoonful twice a day, in milk or water, two hours after food.	My "weight tale that these the tions may answer. Like Oil, when P. does good, it improves nut weight. To obthe digestic be carefully chiefly by divegetable bit
4.—Ph. E. Miall, M.R.C.S., North Parade, Bradford, Yorkshire.	Three cases. I have given it in others, but in some I have only just begun its use; and in some they are not recorded with sufficient care.	One teaspoonful two hours after breakfast and dinner, in milk.	Improvement gestion. Increase in 1 Increase in 1
5.—Arthur Ransome, M.B. Cantab., Bowdon, near Manchester.	About 20 cases, including deficient nutrition as well as consumption.	One or two teaspoonfuls two hours after meals, from two weeks to five months.	Those who tal experience mu from it, espec digestion is no
6.—J. B. Fife, F.R.C.S., Hood Street, Newcastle- on-Tyne.	In many cases. No record of the number. And in many cases I have prescribed both Cod-liver Oil and Emulsion.	From 3j. to 5ss., from half an hour to two hours after food, for periods of from one to twelve weeks.	In many cases been a ma provement in nutrition, an In others I l disappointed result.

-Have you found that patients can take the Emulsion when they cannot take Cod-liver 5.—What is your opinion of the effects of the Emulsion in:—1. The true first stage of Consumption (Pre-tubercular? 2. The stage of Tuberculisation? 3. The stage of Softening? 4. The stage of Excavation?

GENERAL REMARKS.

Jos

es, in all cases.

find, as a rule, scrofulous patients can take Cod Oil, and that the so-called "tubercular" patients cannot take it. Even when these latter can take Cod Oil, it does not benefit them, speaking generally. These patients can, as a rule, take Pancreatic Emulsion. Indeed, I have had no difficulty in managing to persuade any patient to take it.

all cases I have found this the fact.

es, in several instances; but it was not well borne by the stomach in about half the cases. It caused purging in two.

es, occasionally.

1. Not tried.
2, 3, 4. Decided retardation of symptoms; and in four prolonging life to a very marked extent

1 & 2. In four cases the improvement in these stages was considerable.

3 & 4. In two cases seemed to have little effect.

1. That it is of very great value.

That it is also very valuable.

3. That it has less value.

That the value is questionable.

True tubercular, as opposed to scrofulous ulceration of the lung, is benefited by no medicine that I know of in third and fourth stages.

1 & 2. Not tried.

3. Two cases improvement.

 One case improvement.

My experience has been too limited to allow me to answer this question.

I have found the Emulsion of great use in all the four stages of consumption; but I have never relied upon it to the exclusion of other treatment.

Have only used it in a few cases for two reasons.
1. The Emulsion is very expensive.
2. As prepared now, it is by no means so agreeable to take as the earlier preparations.

The Emulsion has been extensively used at the Taunton and Somerset Hospital.

It is more useful, and its effects better seen, in *private* than in hospital practice, *i.e.*, in cases where the patients can have every advantage. I find nothing equal to Cascarilla, as a bitter, to improve the appetite. (See Letter, p. 22, and No. 28 in this Report.)

Some patients complain that it is too nauseous* to take, especially since the ether has been used in its preparation; but others take it well. I think it probable that the ether, and occasionally the oil of cloves used in its preparation, interfere much with its usefulness. I am afraid it "keeps" too well, both in the shop and in the stomach; and the ether must interfere with stomachal digestion.

* The taste of the Emulsion, as now made, has been declared by so large a majority of patients to be rather agreeable than otherwise, that I think when the smell or taste has been seriously complained of, the patient must have obtained it before it was made by the present process, or must have been accidentally supplied with a spoiled specimen, or must have kept it exposed to the air till it had spoiled.—ED.

The Pancreatic Emulsion is of great service in chronic diseases, accompanied by emaciation, particularly where Cod-liver Oil cannot be taken, although in some cases the Cod-liver Oil has been retained, and the Emulsion rejected. I believe the Pancreatic fats to be valuable remedial agents, but not equal to Cod-liver Oil.

SIGNATURE. ADDRESS.	1.—In how many cases of Consumption have you prescribed the Pan- creatic Emulsion, pre- pared by Savory and Moore?	2.—In what doses, at what interval after food, and for how long a time did you administer it in each case?	3.—What is your of of its effects up Digestion? 2. tion? 3. Weight patient?
7.—HenryGibbons, M.R.C.S. 28, Stafford Street, Wolverhampton.	Two cases.	One teaspoonful one hour after food for two months.	1. No effects. 2. Good. 3. Increase.
8.—John Fox, M.D., Ardgowan Sq., Greenock.	About twenty-four.	One teaspoonful one hour after each meal. Not continued long, owing to the expense.	1. Nearly all the part stated that it in a digestion. 2 & 3. Cannot ans a.
9.—J. Swift Walker, M.D., Hanley, Staffordshire.	About thirty.	A teaspoonful three times a day, about two hours after food.	 Increases appel a promotes digest Increases. Increases.
10.—Henry S. Purdon, M.D., College Square, Belfast.	Three cases.	In teaspoonful doses, after food, administered in milk.	1. Promotes diges in 2. Patient apperaisment apperaisment apperaisment and flesh. 3. Ditto.
11.—R. GUTTERIDGE, M.D., London Road, Leicester.	One case.	Not stated.	The patient id gained both fle lar strength.
12.—C. Glenn Bott, M.D., 2, Eyre Street, Sheffield.	About nine.	Half a teaspoonful in milk three times a day, half to three-quarters of an hour after food.	The result would encourage my count ing to use it.
13.—H. S. LEVERTON, M.R.C.S., &c., Truro, Corn- wall.	A case of general atrophy. Cases of disease of stomach, &c. &c.	According to the printed directions.	It decidedly ass d gestion and no shi the body.
14.—John Skaife, M.R.C.S., &c., Northampton Square, London.	Six cases noted, several others not noted.	One teaspoonful twice a a day, one hour after food, from two weeks to three months.	Digestion and notice are improved. Weight is increase

special stomach derangement.

lave you found that ients can take the ulsion when they not take Cod Liver	5.—What is your opinion of the effects of the Emulsion in:—1. The true first stage of Consumption (Pre-tubercular)? 2. The stage of Tuberculisation? 3. The stage of Softening? 4. The stage of Excavation?	GENERAL REMARKS.
far better.	1. Very good. 2. Very good. 3. Very good. 4. No effects.	Very far superior to Cod-liver Oil. The only objection to its general use being the price.
occasionally.	 Certainly useful. 3, 4. All the patients stated that they were benefited by its use. 	Have not had time to warrant me in giving a decided opinion on its merits. I must say, however, that I am favourable to it, and would willingly continue its use if permitted by the Directors of this Infirmary.
	1. Very good; much superior to Cod-liver Oil. 2. Ditto, ditto. 3. No effect. 4. No effect.	In cases of old standing bronchitis, and also in debility, after a severe attack, it is superior to any other remedy.
	1. In one case a boy, aged 12, attacked by first stage of phthisis, the effects of the remedy were amazing; and at the present time no symptoms of consump- tion remain. 3. One case, a man, age 40, stage of softening, derived much benefit from the Emulsion, and has gained in strength and flesh. One case only a few months under treatment.	The first case was in Belfast Charitable Society Infirmary. The reason I have not tried the Emulsion more frequently is, that its expense is rather too much, especially in hospital and dispensary practice.
the second bottle took such a dislike the flavour that she uld not resume it. See Note, p. 9.)	Second stage, rapid increase in flesh and strength.	I have used the Emulsion in one case, second stage, with considerable success. It strikes me, if the flavour could be varied, or if it could be sent out without flavour, it would be a very great improvement. (See Note, p. 9.)
ght cases out of nine agreed.	Not answered.	I am sorry I have not sufficient data to reply to all your questions. I was only able to use the Emulsion for a short time, in a few cases, about twelve months ago, while House Surgeon to the Leeds Dispensary.
decidedly in two three well-marked es.	I intend to try the Emulsion thoroughly in cases of phthisis.	In cases of debility, wasting, &c., from any cause, this is a most valuable remedy.
	The general plight of the	The Emulsion invariably agrees, unless there is some

body is improved in

every stage.

SIGNATURE. ADDRESS.	1.—In how many cases of Consumption have you prescribed the Pan- creatic Emulsion, pre- pared by Savory and Moore?	2.—In what doses, at what interval after food, and for how long a time, did you administer it in each case?	3.—What is your of of its effects on 1. Digestion? In tion? 3. Weig of patient?
15.—J. P. Cassells, M.D., 419, St. Vincent Street, Glasgow.	In a very large number. Dr.Cassell writes again, July 23, 1867: "Since my last report I have had a run of cases suit- able for the use of the Emulsion, and in which I have prescribed it very largely, with much benefit, so increasing the favourable opinion I have already ex- pressed."	From 3j. to 3ss., about one hour after food. In some cases it was used for about twelve days, in many for some months, and in one (1st stage) for about eight months, using 3ss. doses with the most marked benefit. Indeed, I am inclined to regard it as having effected a cure.	1. Improvement cases. 2 & 3. In those which I have point it for a long tire it improved the print and increas weight of the ite
16.—C. B. GARRETT, M.D., Hastings.	About fourteen.	A dessert-spoonful three times a day, almost directly after meals.	1. Agrees well. 2 & 3. Adds to eand strength.
17.—John Firth, M.R.C.S., Macclesfield.	Seven cases.	One teaspoonful two hours after food, in two cases for three months, in four cases for one month.	1. Did not as Appetite improd. 2. Improved. 3. Apparently in all. Not when
18.—A. MERCER ADAMS, M.D. Edin., Boston, Lincolnshire.	One case.	One hour after food, twice a day.	I found it mos reable. The at could not take in last stage sumption. Read a time by g Digestion is and weight in as
19.—A. C. CLIFTON, M.R.C.S., Abingdon Street, North- ampton.	Thirty-two.	A teaspoonful half hour after food, in fourteen cases for one month, in four for fourteen days, in four for ten weeks, in eight for two months.	In a few cases it be to improve st In other cas t nil. In all to cases the pat is proved in nut on weight.
20.—G. T. W. Mugliston, M.D., Maryland Point, E.	Five cases.	One teaspoonful one hour after meals, three times a day in water, milk, or brandy and water.	1. Assists diges 1. 2. Improves numical 3. In one case to at gained 3½ lb n weeks.

ave you found that tients can take the culsion when they mot take Cod-liver

in every case.

5.—What is your opinion of the effects of the Emulsion in:—1. The true first stage of Consumption (Pre-tubercular)? 2. The stage of Tuberculisation? 3. The stage of Softening? 4. The stage of Excavation?

GENERAL REMARKS.

1, 2. When it can be borne by the stomach, benefit has in most cases followed, using large doses.

3, 4. A decided opinion cannot be given, for the reason that in these stages I have not been able to prevail upon patients or their friends to continue its use for a length of time sufficient to test its properties.

perties.

2, 3. Good in both.

 In two cases the patients are now quite well.

Two still under treatment.

In the last stages. Three dead.

I have only experience of its use in the softening stage. But I should think it very useful in the earlier periods, and shall not fail to make a trial of it.

1. Decidedly beneficial.

2. Do. do.

Nil. except in three cases, which were benefited.

4. Nil.

1. Not had the opportunity of trying it.

2, 3, 4. It improves the strength, and renders the expectoration more healthy and less copious. I have found it equally beneficial in cases of wasting in poor children. And in one case of malignant disease of the pancreas—female, aged forty-five—where large masses of fatty-looking matter passed in the stools, and there was great wasting of the body, the patient improved much in general condition under the use of the Emulsion, and the fatty matter ceased to pass in the stools in a rapid manner. (See Report of case, p. 20.)

I think it a splendid invention.

I consider the Emulsion a valuable addition to the nutritive agents required in the treatment of phthisis, and it is specially useful in cases where Cod-liver Oil cannot be taken.

No remarks.

The Pancreatic Emulsion seems to give general satisfaction and benefit, which is a great consideration, because there are many persons who cannot take Cod-liver Oil. I have recommended its use in three cases in second stage (softening.)

(1.) Mrs. —, thirty-five, had two children ill two years. After taking Emulsion six weeks, gained 3½ lbs.; cough and other symptoms much improved.

(2.) Miss ——, twenty-eight, ill one year and a half has taken Emulsion two months, with diminution of cough and expectoration.

(3.) Miss —, strumous abscesses, and softening of both lungs; loss of strength, appetite, and weight. Has taken Emulsion eight weeks, with decided advantage over Cod-liver Oil. All symptoms better. Intends to continue Emulsion.
4th case. Mrs. —, twenty-seven; five children; could

4th case. Mrs. —, twenty-seven; five children; could not take Cod-liver Oil; it deranged digestion. Has taken Emulsion one month, with great benefit; increase of weight and bulk. Cough much better, and feels stronger.

5th case. Mr. W—, the most marked of all (stage of excavation,) after a long course of Emulsion, he now attends regularly to his duties, as foreman in the fitting-shop of the Great Eastern Railway.

, generally, though me preferred Codver Oil.

SIGNATURE. ADDRESS.	1.—In how many cases of Consumption have you prescribed the Pan- creatic Emulsion, pre- pared by Savory and Moore?	2.—In what doses, at what interval after food, and for how long a time, did you administer it in each case?	3.—What is your on of its effects on 1. Digestion? Surtion? 3. Weig of t patient?
21.—CHARLES F. LEWIS, L.R.C.P. Edin. (Exam.), Henfield, Sussex.	At present only two.	One teaspoonful two hours after breakfast and dinner; three months one case, twelve months the other, and is still taking it.	In both cases better very much in over In one case in its and weight in use the other remaining in the same was
22.—A. E. Sansom, M.D. Lond., 29, Duncan Terrace, London.	I have notes of only five cases in private practice.	To adults, two teaspoonfuls in milk soon after meals.	1. Tendency to digestion, certain to impair it. 2. In some cases improvement. 3. Not noted.
23.—Julius Althaus, M.D., 18, Bryanstone Street, Portman Square.	When Physician to the Royal Infirmary, I prescribed it in about twenty cases of tuber- cular phthisis, where Cod-liver Oil did not agree.	From 3ij. to 3ss. twice a day,	1. Much improve 2. Much improve 3. No data.
24.—HENRY COLLEY MARSH, M.B. Lond. &c., Rochdale.	Very numerous.	Sometimes a teaspoonful after food four times a day, sometimes a tablespoonful half hour after breakfast and after dinner, during many months when borne.	1. Often improve it sometimes positions positions proved, nutrite improved. 3. When nutrite improved, the increases.
25.—W. ALEXANDER, M.D., M.R.C.P., Senior Physician, Halifax Infirmary, Halifax.	Probably a dozen.	A tablespoonful, with usually Almond Emul- sion, to adults, a des- sert-spoonful for chil- dren, in the intervals of food-taking.	1. The stomach in usually tolerated at 3. It has seemed to emaciation.

-Have you found that patients can take the Emulsion when they cannot take Cod-liver 5.—What is your opinion of the effects of the Emulsion in:—1. The true first stage of Consumption (Pre-tubercular)? 2. The stage of Tuberculisation? 3. The stage of Softening? 4. The stage of Excavation?

GENERAL REMARKS.

Tes; in one case the patient was unable to take Cod-liver Oil, in the other both Emulsion and Oil; and when the supply of Emulsion was exhausted, missed it very much.

- 1. Have not tried it.
- 2. Ditto.
- Marked benefit in one case. In both cases all moist sounds quite disappeared.

I have no hesitation in saying, that in the two cases in which I have given the Emulsion, it has quite exceeded my expectations. In one patient when she commenced the Emulsion, the left lung was in the stage of excavation, and the right in the stage of softening, which has been arrested, and the moist sounds in the left lung cleared away. I am now giving it in a third case, but has only been taking it five days, so cannot report upon it at present.

ces, this is the general rule.

- In one case of consolidation of left upper lobe, after the use of Emulsion one month, there was marked improvement, and dulness could not be detected.
- 3, 4. In a case of rapid formation of tubercle, Emulsion seemed inert. When the sounds are very moist at commencement of observation, Emulsion seemed to cause only slight improvement.

When the sounds were tolerably dry, the formation of tubercles slow, the Emulsion seemed to exert a marked protective influence. I have now under my care two cases of the stage of excavation. In one case, twelve months, in the other, five months have passed without the slightest increase of the signs, as evidenced by physical examination. In both the sounds remain remarkably dry.

es, it agreed with all but one. Not having kept notes of the case, cannot give exact information; but it seemed to act best in what you call the 2nd and 4th stages. I have prescribed Emulsion in a number of cases of nervous disorders, especially hysteria associated with anæmia, and paralytic affections connected with mal-nutrition. In all of these cases Emulsion was well borne, and appeared to be of considerable benefit in improving assimilation and general condition of the patient.

es, and vice versa.

- 1. Most excellent.
- 2. Very excellent.
- 3. Doubtful.
- 4. Very doubtful.

I have often found that Cod-liver Oil in capsules is better borne than in any other form. I give one capsule immediately after each meal for a week, then two for a fortnight; then stop a week, and begin with two, and go on to three. Those patients who have failed to take the Emulsion have taken these very well.

ccording to their own statements, yes; and when the stomach is deranged.

- Not employed in this stage.
- 2. No marked effects.
- 3. Allays the gastric irritability.
- Aids nutrition, and thus prolongs life.

No remarks.

24.			
SIGNATURE. ADDRESS.	1.—In how many cases of Consumption have you prescribed the Pan- creatic Emulsion, pre- pared by Savory and Moore?	2.—In what doses, at what interval after food, and for how long a time, did you administer it in each case?	3.—What is your or it of its effects up Digestion? 2. tion? 3. Weight in patient?
26.—T. R. S. Nivison, M.D., 50, Eagle Terrace, St. Helier's, Jersey.	Two.	Teaspoonful doses, two hours after meals; in one case for six weeks, in one case four.	1. Is itself easily diggs 2 & 3. No opinion for a
27.—G. Lindsay Bonnar, M.D., 69, Crossgate, Cupar, Fife.	Only one case.	In teaspoonful doses, half an hour after food, in milk, for about four- teen days.	Patient was very for at first, and it evil to was nutritious; it was a case can vanced phthisis it waste was not compensated for administration at triment.
28.—T. CLIFFORD ALLBUTT, M.A., M.D., Cantab., Park Square, Leeds. (See former report, p. 8, and Appendix, p. 23.)	1. Mrs. J. H., æt. 32, phthisis essentialis, (non-scrofulous). Olive complexion. Small white teeth. Good eyebrows and eyelashes, long and uninjured. Finely-cut lips. Nose slender, also well cut, not spreading. Face oval. Hair silky. Conjunctivæ white. Pupils rather dilated. Form tall, elegant. Epiphyses of long bones fine, joints well - formed, and clean.	One to three teaspoonfuls twice a day, two hours after food.	Good.
29.—Trevor Morris, Junr., M.D., Ashby-de-la-Zouch.	Three or four.	Two teaspoonfuls two hours after food.	I believe it im digestion.
30.—Henry Barnes, M.D., 45, Lowther Street, Carlisle.	Three.	A teaspoonful three times a day, half an hour after food. 1st case, two days; 2nd case, two weeks; 3rd case, one month.	In 1st case it disa causing sickness two other patien it readily, and good result. The proved in weight siderably, and as their improvement the Emulsion.
31.—C. PAGET BLAKE, M.D., M.R.C.P. Lond., Anglesey House, Torquay.	In several cases of dif- ferent stages; generally in those who were utterly unable to take Cod-liver Oil.	Within half an hour after the two principal meals, from four to twelve weeks at a time, renewed at intervals.	1. An excellent ad 2. Decidedly benef 3. Variable, but rally tended to in weight.

ave you found that ients can take the ulsion when they not take Cod-liver 5.—What is your opinion of the effects of the Emulsion in:—1. The true first stage of €on-sumption (Pre-tubercular)? 2. The stage of Tuberculisation? 3. The stage of Softening? 4. The stage of Excavation?

GENERAL REMARKS.

in one of the two

1. Not tried.

2, 3, 4. No opinion formed as yet.

One of the cases was in the stage of excavation, and could no longer bear Cod-liver Oil; but took the Emulsion readily for six weeks, gradually sinking. The other case was in the stage of tuberculization. The Emulsion did not agree so well as Cod-liver Oil, causing sickness, &c., once or twice in a month. Can form no opinion as yet on its merits.

in this case recourse s had to the Emuln, owing to the inlity of the patient retain Oil on the nach, even in nute doses. I have not elements to form an opinion as to anything, except that it is highly nutritious and agreeable, as well as an easily-digested article of food. Very valuable as a substitute for Cod-liver Oil. It is calculated to be beneficial in all cases where the tone and vigour of the system requires repair.

iver Oil tried in all
s for five months,
could not be coned; caused nausea,
it did no good.
eatic Emulsion
ld be taken reurly and digested.

In this case there was loss of flesh two years. Night sweats, debility, and dyspepsia, eighteen months. Cough, one year. Hæmoptysis frequent; first attack eight months ago.

This case came under my care in Nov., 1865. Pancreatic Emulsion begun Feb., 1866.—October, 1866.

Has steadily improved, and has gained 18 lbs. in weight. No night sweats. Appetite described as excellent. Slight cough. No spitting. Emulsion regularly taken and digested.

May, 1867.—Aspect healthy. No cough. Weight steady. To omit Emulsion.

P.S.—This I send as a good example of what I mean by the class of cases which do benefit on Pancreatic Emulsion, and not on Cod-liver Oil.

time.

I cannot say.

The most notable feature I have observed in the exhibition of the Emulsion is, relief from the craving and sinking so often found in phthisical patients.

rd case could not cod-liver Oil, and Emulsion.

se, could not take

ase, never tried Oil.

The number of cases is too limited to form a just opinion. The two cases in which I have noted improvement were in the stage of Tuberculisation. The other case (No. 1) was in the last stage, and soon died.

1. Highly beneficial.

Of decided and permanent service.

3. It is an immense help to other remedies for reestablishing the health.

4. Not tried.

If in future it affords the success which I am led to anticipate from my limited trial, I shall be very happy to communicate my results.

a many cases which
e revolted at the
of Oil, but which
the Emulsion
lily, especially when
bited with equal
s of ginger wine
water.

I have found that a great many patients could not take the Emulsion in milk; but I never knew any who could not take it in ginger wine and water. Probably this is owing to my patients at Torquay usually consuming so much milk and cream at other times; as I always order both in large quantities for consumption cases.

SIGNATURE.
ADDRESS.

- 1.—In how many cases of Consumption have you prescribed the Pancreatic Emulsion, prepared by SAVORY and MOORE?
- 2.—In what doses, at what interval after food, and for how long a time, did you administer it in each case?
- 3.—What is yo of its effects Digestion? tion? 3. We patient?

- 32.—J. B. GAIRDNER, M.D., 21, Blythswood Square, Glasgow.
- In many cases, both in hospital and private practice.
- Dose not stated. Continued for weeks in almost every case.

No particulars ve

33.—Horace Dobell, M.D., Harley Street, London.

- I have prescribed it in about 2,500 hospital cases, with results which, I think, may be fairly represented by those obtained in the 187 cases of which careful notes were taken, and which have been published in the Lancet.
- From one to four teaspoonfuls once or twice a day, from one to two hours after the principal meals, for periods of not less than eight weeks at a time i milk, water or ginger wine and water; a little brandy or rum usually being added.
- 1. Assists gre or digestion of a starch, and madigestion in But it is now use commo ecorrecting and derangement of tion, which is present, by a gradies.
- 2. Supplies faur tion, and genesis.
- 3. Maintains no weight according amount of ghously lost equantity or madministers

we you found that ents can take the dision when they not take Cod-liver 5.—What is your opinion of the effects of the Emulsion in:—1. The true first stage of Consumption (Pre-tubercular)? 2. The stage of Tuberculisation? 3. The stage of Softening 4. The stage of Excavation?

GENERAL REMARKS.

objection, as cted. ne cases it has been ly tolerated when Oil disagreed. No report as to the stage in which it was given. I cannot say that I have obtained, as yet, any definite results, tending to the belief, that we have in the new remedy a *specific* for tubercular disease; or, even in a special sense, a palliative of its leading symptoms.

in 187 published s, Emulsion agreed 180; disagreed in Cod-liver Oil n. ed in seventy-five, greed in ninetyt; was not tried in teen. In the 187 s of which I have ished results, no -liver Oil was n during treatment Emulsion, so as to confuse the ts of the two reies. But in daily tice, I recommend Oil and Emulsion be taken, if the will nach bear n. The proportion cases in which lsion agrees will be as large as here d, unless care is n to correct obvious cts in digestion by r remedies.

1. That it materially contributes towards effecting a radical cure, as explained in my Lectures "On the True First Stage of Consumption."

 In forty-five cases, results measured by general symptoms, forty-four improved, one stationary; measured by physical signs, thirty-one improved, thirteen stationary, one worse.

3. In sixty-nine cases, results measured by general symptoms, fifty-nine improved, five stationary, three worse, two not noted; measured by physical signs, fifty-two improved, eleven stationary, four worse, two not noted.

4. In seventy-three cases, measured by general symptoms, fifty-five improved, three stationary, fourteen worse; measured by physical signs, thirty-five improved, twenty-two stationary, thirteen worse, three not noted.

In the True First Stage, my experience is derived principally from private practice, such cases not often appearing at hospitals.

Of the 2,500 hospital cases who have taken the Emulsion, many have been in an extremely advanced stage of disease; and in some of these the Emulsion has appeared to prolong life in a remarkable manner, being retained on the stomach long after all other kinds of food had ceased to be tolerated.

Whereas oleinous fats, and especially Cod-liver Oil, are absorbed into the blood through the portal system, and serve an important purpose by rapidly presenting themselves for combustion and histogenesis; they do not, and cannot, take the place of the solid fats—rich in margarin and stearin, fusible at higher temperatures than olein, and less easily oxidisable—which can only be absorbed by the lacteal system after pancreatization. This accounts for the remarkable stability of the improvement which accompanies and follows the administration of Pancreatic Emulsion, after Cod-liver Oil has been given without success, or with very evanescent success.

APPENDIX.

REPORT OF CASE OF SUPPOSED DISEASE OF THE PANCREAS. REFERRED TO, p. 13.

419, St. Vincent Street, Glasgow, 23rd July, 1867.

My DEAR SIR,—I am in receipt of your favour of the 18th inst., and haste to reply.

Mrs. McL—, aged about 45 years, married, but without family, first consulted me in May, 1865. Three years previously, began to complain of a deep-seated pain in the abdomen, which has continued constantly since that time to the present. Her appetite for food is much impaired, and has been so all along; and she dare not touch food of a fatty nature or milk, because, as she expresses it, "the fatty stuff passes through the bowels and appears in the stools." She has not at any time vomited her food, nor is the pain in any way affected either by fasting or after a full meal. Her present condition is as follows:—The body presents a dead leaden hue, with a slightly yellow tinge where the skin is thin. There is an entire absence of superficial fat, and the body is very spare, her state being one of great exhaustion and anæmia. She called my attention to her left eye, the sight of which she lost suddenly since her illness began. It is affected with cataract.

Physical examination of the abdomen revealed the presence of a tumour midway between the umbilicus and the ensiform cartilage in the middle line, and it appeared to lead to the left side, where it was very indistinct. Moderate pressure on the more prominent part caused much increase of pain, which had been felt since her illness began. The objective symptoms led me to diagnose the tumour to be malignant in nature, while the subjective symptoms clearly pointed out the pancreas as the organ affected. No treatment—chiefly of a tonic and sedative nature—had the least good effect upon her symptoms, and the fatty matter appeared in her evacuations when she indulged in food of that kind. On this my first visit, I had not an opportunity of examining the evacuations for the fatty matter; subsequently I had.

On the day on which I examined for it she had animal food for dinner—steak or chop—the bowels being moved some time after. The stool was copious, semi-fluid, highly offensive, and very bilious, with small flakes of a light colour floating in the liquid part of the contents of the chamber-pot, the largest being about the size of a split horse bean. I regret I did not examine the matter under the microscope, seeing that it presented the physical characters of fat; and no opportunity has presented itself since then to do so.

She went to the country to reside, and I did not see her till December, 1865, her condition then being the same as on her first visit to me, except that she was more emaciated in body, and of course weaker in strength.

Some time before this I had determined, should she again come under my care, to try her with your Emulsion of Cod-liver Oil, as recommended in your report, with the object of testing my diagnosis, and your views as to the function of the pancreas. I put her on \$\frac{7}{3}\$ ss doses twice a day in milk, and the improvement was very great, and that within a day or two. She improved in appetite and strength; her bowels became more regular; and she informed me, as also did her husband, that every particle of the "fatty stuff" had ceased to appear in the evacuations as it was wont to do, and that she was able to take almost any kind of food without it appearing, and without any ill effect otherwise.

She continued its use some time with marked benefit; and fine weather setting in, I advised her to go to the coast, which she did, and so passed from my immediate care. Up to the time I last wrote you, I had neither seen nor heard from her; but as luck would have it. she called upon me about the end of May last to tell me how she felt; and as I was specially interested in her case, I called and examined her very carefully at home; but with the exception that she was improved in strength and weight, and that no fat ever was seen in the evacuations, in other respects she was the same. She had used the emulsion altogether some weeks, and now being able to take ordinary articles of diet, I did not feel justified in asking her to resume its use. I asked her if she had ever seen the little white bodies floating or mixed in the evacuations since she had ceased to use the Emulsion, and she told me she had not, although nearly every time she had a motion from the bowels she examined for them, or as she called them, "white lumps."

The pain and the site of the tumour are the same, nor does the colour of the skin seem to be changed, although in other respects she is so much better. I had intended to have kept her some time longer

under observation, and to have examined the evacuations for the fatty-looking matter, and have placed it under the microscope, but she is again in the country.

I will watch the case, should I have the opportunity; and if anything further of moment turns up I will let you know.*

I remain, my dear Sir,

Yours most truly,

JAMES PATERSON CASSELLS.

LETTER FROM DR. ALLBUTT. REFERRED TO, p. 8.

38, Park Square, Leeds, April 22.

My DEAR DR. DOBELL, -I think your questions were the means of drawing out all I have to say on the subject very successfully, though of course one might amplify matters very much. I feel sure the distinctions between scrofulous phthisis and tubercular phthisis is very important. I very rarely find that a genuine scrofulous patient cannot take cod oil, and I think there is nothing like this remedy for any form of scrofula, cutaneous, glandular, osseous, or visceral. Scrofula, I take it, is a deficient growth ab initio, an imperfect development. Tuberculous patients are not only well, but generally elegantly made. These can seldom or never take cod oil; perhaps your view of deficient pancreatic secretion is true of these. Indeed, I generally prophesy on out-patient days to the students (out of the hearing of the patients of course), which can and which cannot take cod oil, and am seldom wrong. For these latter the Pancreatic Emulsion is of much value, I am sure. As you say, there is, speaking generally, no trouble whatever to get the Pancreatic Emulsion taken. But it must be well made and fresh. In some states of the weather it soon turns. Of course, with any medicine one finds a person here and there who gives trouble. If attention be given to your rules, I am sure there need very seldom be any in this case.

The most successful cases I have had have been in tuberculoid people without localised lesion. It sets such people up surprisingly sometimes: for example, "delicate" children, of tuberculous parents. The remedy gets at them before the diseased tendency gets a strong

^{*} I have asked Dr. Cassells to send me a specimen of the "fatty-looking matter" for analysis, should any more be passed.

swing. When once upon the declivity, it is hard to put a spoke in the wheel.

I have one or two families in my eye, of gentry living near here, for whom, and for whose children, I have prescribed Pancreatic Emulsion with great success. I have one under my care now. Last year I ordered for a delicate-looking, thin-skinned boy,—with lustrous eyes, long eyelashes, fine wrists and ankles, silky hair, tendency to flush towards evening and perspire at night, uncertain appetite, unequal physical energy, &c., the Pancreatic Emulsion. He strengthened wonderfully under it, and now remains better, or indeed well. But if he leaves the Pancreatic Emulsion off, he tends to fall back. To his younger brother I am now called, who is such another boy, and with same symptoms. He is put on Pancreatic Emulsion, and is doing the remedy the same credit. In many such cases I have found it valuable, and for such cases it seems to me to surpass any other, and especially for them,

In haste, believe me, yours very faithfully,

T. CLIFFORD ALLBUTT.

The following case, related by the patient himself, a most intelligent and highly-educated traveller, of medical education, although not practising, presents so many points of interest in relation to treatment by climate, diet, and medicine, as well as by Pancreatic Emulsion, that I do not scruple to give it in full.

When he consulted me, Sept. 8, 1866, he had unmistakable consolidation of the upper part of the left lung, and of a small portion of the right. This had been diagnosed by several physicians before I saw him. His weight was then 9st. 4lbs.; he stated that he had never weighed more than 10 stone. I advised him to winter at Bournemouth, but he went to Arcachon of his own choice.

"W. E., age 38 years; married Sept. 8, 1866; mother and brother died of consumption. Had an attack of hæmorrhage, supposed to be from the throat, sixteen years ago.

"Eighteen months ago began to feel symptoms of debility, and a slight amount of expectoration in a morning. In July, 1865, I attended the rifle contest at Wimbledon, when the heat of the weather, fatigue, and intense excitement I underwent, brought on hæmorrhage, but not attended with any other increase of symptoms. In the September following I again attended a rifle match, which was followed by another attack of hæmorrhage, during which I brought

up three or four tablespoonfuls of blood every morning for about ten days. This attack was accompanied by great nervous excitement and complete prostration, and after it passed away the expectoration and shortness of breathing very much increased, with occasional loss of voice.

"At the present time I have more or less debility always, and usually a wheezing in the chest, short breathing on exertion, and expectoration, the latter consisting of about two teaspoonfuls of tough yellowish mucus, brought up usually in a morning. Sometimes the mucus is clear, and in that condition I sometimes observe specks of blood in it. I have scarcely any cough. When my digestion is in very good order the symptoms nearly disappear, except the expectoration. All the symptoms much aggravated by warm relaxing weather, such as yesterday's.

"Pulse slow, and seems to be gradually getting slower; eighteen months ago it was generally about 52, now it often gets down to 46 per minute, and intermits.

"Believe my present illness was brought on by frequent and

excessive fatigue, indigestion, and habitual constipation.

"From the time I had the severe hæmorrhage, in the early part of September, 1865, until the beginning of the following October, I took almost daily voyages between Liverpool and the Isle of Man, and I also practised the raw meat and alcohol treatment, but not to the full extent, as practised at Montpellier.

"I rapidly gained strength, but was still too weak to walk more than half an hour at a time, when I sailed for New York on the 4th October. The voyage was exceedingly rough, lasting fourteen days, and the weather very cold, but I suffered no inconvenience as regards irritation of the chest, and think I was better at the end of the voyage; but I was still very weak, and could not ascend the long flights of stairs in the New York hotels without stopping to breathe at every landing. I also found great difficulty in conversing for more than a few minutes at a time, feeling a complete loss of voice.

"I arrived at Niagara on the 22nd October. The weather then was bright, frosty, and bracing, and for the first time I felt myself very decidedly stronger and better. After remaining a few days, during which I continued to improve, I went on to Chicago. Here the weather was very wet, and the temperature high, and my health failed rapidly. I could scarcely breathe, and after two or three days I was glad to get away en route for Minnesota.

"At Duberque, on the Mississippi, there was six inches of snow. The accommodation at the hotel was wretched, the snow drifted

26 APPENDIX.

between the window-sashes, about the bedroom, and I suffered much from cold; but no increase of chest symptoms followed, although I had to put up with this state of things two days, while waiting for a boat to take me up the river. I felt much better than in the warm, damp atmosphere of Chicago, but not so well as at Niagara. On the journey from Chicago to Duberque I was much distressed by the heated air of the railway carriage, which had a stove at each end, and was very badly ventilated, the passengers generally objecting to open windows. From Duberque I went to St. Paul. This town is almost at the head of the Mississippi navigation, and a place much frequented by consumptive patients. The morning after my arrival was fine and bracing, like the weather at Niagara; and to my surprise I found myself able to walk about six miles without fatigue. The next day there was rain and snow, and I had to remain in the hotel, which was heated by hot-air pipes, and affected me in the same way as the railway carriages. Although there was snow and rain falling all day and night, I kept my bedroom window wide open, and the door shut, but could not succeed in getting the atmosphere sufficiently moist to enable me to breathe freely. Notwithstanding the rain fell outside, the external air seemed too dry to overpower the artificial dry heat of the hotel. I did not stay long enough at St. Paul for the climate to produce any decided effect on me. I found that the climate was too cold to admit of horse exercise being taken in winter, and that there was no sporting that I could avail myself of at that season. also consulted Dr. Willy, who has the leading practice there, and he said I should do equally well either in Minnesota or Texas; but I learnt from him that a patient should have considerable stamina to enable him to winter at St. Paul. I therefore decided on following out my original intention of wintering in Texas. I learnt from the Rev. G. S. the following particulars :-

"He had been suffering from disease of the lungs for several years, and during the last four had been 'doing duty' at a church at St. Cloud, a little further north than St. Paul, having gone there from Virginia. When first he went there he was very ill, and used to feel so prostrated every time he preached, that he thought each time would be the last; but the climate improved him; so much so, that two winters ago he went out on a deer hunt, and exerted himself so much in walking a long distance through knee-deep snow, that he brought on 'the most severe hæmorrhage he ever had.' The day after he had to walk nine miles more, but the bleeding stopped, and he suffered no further ill consequences. He said that early in November the frost set in, the thermometer falling to ten or twelve degrees

APPENDIX. 27

below zero, and remaining so until March. The weather during this time is bright and calm; snow does not always fall to any great depth. In his professional capacity he had become acquainted with a great many consumptive cases which had been sent there. Most of them improved, and some got well, but relapsed on returning to the eastern states. In many cases the improvement was very deceptive; his theory was, that the tonic, bracing effect of the climate was only felt superficially, stimulating the patient, and making him feel in better spirits, and even stronger, although the disease was still rapidly advancing, and would finally terminate with startling rapidity, the end being generally preceded by a sudden, and to the patient, unaccountable loss of appetite.

"After leaving St. Paul, I spent three weeks on the Mississippi. The weather the whole time was delightful (November), cold and dry at St. Paul, and gradually getting warmer, until at New Orleans I found myself once more in a summer climate, and very much improved during the voyage down the river; but during the few days I spent at New Orleans I lost ground, and became still worse before leaving Galveston, which I attributed to the heat and moisture of those places, rendering them exceedingly relaxing. However, I again improved when I got up the country, two hundred miles from the coast. The climate during the time I staid was all I could wish for. I frequently slept with my bedroom window open in January. The mean temperature at eight in the morning, during the months of December and January, was forty-eight degrees; at noon, sixty-six degrees; and we had not more than six wet days in three months.

"While here, I tried the raw meat and alcohol treatment again for several weeks, but I found I had to leave it off every three or four days, as it disordered my digestion. I do not think I derived any benefit from it, except that the expectoration was rather less in quantity and more difficult to get up, which is always the case when I take stimulants. I also found that I could not take cod-liver oil in Texas, although it never disagreed with me in England.

"After giving up the raw meat, I continued the alcohol, taking along with it the whites of six or seven eggs every day; and during the time I was doing this I gained flesh, but did not improve in any other respect. I cannot say that I gave the raw meat treatment a fair trial, as I neither continued it long enough, nor took observation as to its effect on my weight; but the gain of flesh was perceptible without weighing, after I had taken the eggs for some time.

"Although the weather was so fine and dry during the winter in Texas, it does not afford exactly the climate to suit the generality of consumptive cases, on account of the sudden and extreme variations in the temperature, arising from the prevalence of the winds called 'northers.' These winds commence blowing so suddenly, that the temperature often falls twenty degrees in a single hour, and as a consequence, pneumonia is prevalent in winter, and is often followed by consumption, although I could not learn that the latter disease ever made its appearance spontaneously. Amongst numerous remedies in use there for the cure of consumption, one of the most extraordinary was taking dog-oil. The prescription was, to boil down a fat dog, skin off the fat, and take it in the same way as cod-liver oil. The German settlers frequently use this disgusting preparation.

"I left Texas early in March, being afraid to stay during the hot month, as I was still occasionally threatened with hæmorrhage. When I left the country, I looked as well as ever I did in my life, and I should think was up to my average weight when in good health; but I was not so strong, and my breathing was still bad; the morning expectoration not any less. Before I reached New York in April, I was almost as bad as ever again, the cold, raw climate of the Northern States, particularly that of Pennsylvania, undid all the good I had gained in Texas. However, the voyage home improved me again very much, having a very decided effect compared with the outward trip in the preceding autumn; and I seemed to feel the benefit of my travels for many weeks after my return to this country."

"May 27th, 1867.

"When I consulted you a few weeks ago, I promised to forward a written account of the progress of my case since I began taking the pancreatic fat. I should have done so without delay, but was desirous of including some particulars, which I thought might be interesting to you, about my fellow-patients at Arcachon, as to how they had passed the latter portion of the winter there; but I fear my correspondent is very ill, as I have been an unusually long time without getting a letter.

"I commenced taking the 'Pancreatic' early in September, while staying at Maidstone. I took two teaspoonfuls twice a day in milk, flavoured with a teaspoonful of rum, and continued this for three weeks, also adding very considerably to my usual amount of farinaceous food. I found that I steadily lost weight at the rate of 1 lb. per week, although I was not losing before I began the treat-

ment. Although much discouraged at this result, I felt convinced that it did not arise from the use of the fat, but from taking the additional food, milk and stimulants; also from the depressing climate of Maidstone. I therefore removed to Tunbridge Wells, and left off the extra diet, giving up stimulants entirely, but keeping to the Pancreatic Emulsion; the consequence was, I gained weight at the same rate as I before lost it, but could not get an ounce above the 9 st. 4 lbs., which was my weight before I began to lose at Maidstone. I now took the fat, mixed with white of egg, instead of milk. My digestion wonderfully improved, and I suppose, as a consequence, my breathing also got much better. The sense of exhaustion in the early part of the day nearly disappeared, as did also the pain between the shoulders, now quite gone. I also slept better. About the middle of November I went to Arcachon, taking with me a supply of the fat, sufficient to supply two teaspoonfuls per day all winter; but either the diminution in the quantity, or the change of climate, or most likely both, caused me to lose ground rapidly at Arcachon,-not in weight, but in symptoms. My nights were restless; signs of perspiration appeared, additional debility, and very slight indications of hæmoptysis; pulse sometimes as low as forty-four beats per minute. It was evidently the worst winter climate for my case that I could possibly have found. The air was so moist, that the hygrometer showed almost complete saturation during the whole six weeks I was there, while the mean daily temperature was about sixty degrees. The climate was, therefore, the very essence of 'mugginess.' I should not think it a desirable place even for those cases which require a sedative air; there seemed to me to be too much decaying vegetation about, and the walks in the forest, however desirable in the heat of summer, had great disadvantages in winter, for you would saunter for a few hundred yards in a hot sunshine, and then the trees would throw the road in shade for a like distance, and you would feel as if you were in a damp, chilly cellar. I noticed that people who were unlucky enough to take cold did not get rid of it for a very much longer time than would be the case in England.

"I got to Cambo in January. It is a small watering place, about twelve miles south of Bayonne, in the Basses Pyrenees, and at an elevation of about 1500 feet above the sea, from which it is distant, in a straight line, about ten miles. I went there because I hoped, from the elevation and distance from the sea, the climate would be less sedative than that of Arcachon.

"My expectations, however, were only half realized, for although much drier than Arcachon, as regards the hygrometer state of the

30 APPENDIX.

atmosphere, the quantity of rain which fell made it very disagreeable. I and my wife had also the disadvantage of being cut off from all other English, and had no one but the people of the hotel (very good one) to speak to, the inhabitants generally speaking Basque. I was much better here than at Arcachon, and I think I slowly improved during the four weeks I remained at Cambo. When I first arrived there, I met with an American, who appeared to be in a very advanced stage of consumption. He told me he had spent one whole winter at Cambo with so much benefit, that he returned home to New York; but during the present winter he had not experienced any good effects from the place, and was going to Pau. A young woman, a native of the village, died of consumption a few days before I went there.

"In February, a family bereavement caused me to return home, and the severity of a night and day journey to England rather tried me. I almost lost my voice for several days, and did not quite get over it until the end of the month, when we had a week or two of very dry, bracing weather in the Isle of Man, during which my general health improved very much, and continued to do so even through the severe weather in March. From the beginning of February I left off taking the Pancreatic Emulsion for six weeks, so that the improvement was solely owing to the effects of climate; but I found that, in spite of being better in every other respect, the expectoration and difficulty of breathing began to increase; and I have now returned to two large teaspoonfuls of the fat per day; and I already perceive an improvement, both in breathing and expectoration. I think I have taken about twelve pounds of the Pancreatic Emulsion during the lastnine months, and I take the final results to be as follows: -digestion improved; breathing very much improved; strength improved; sleep perfectly restored; pain between the shoulders gone entirely: weight stationary; expectoration stationary.

"I am in very much better spirits than I was this time last year, and I trust, by a judicious selection of climate, and the aid of the valuable remedy you have originated, I shall be able to ward off for a long period the serious increase of the symptoms with which I have been so long threatened.

I remain, my dear sir, Yours very truly,

Wм. Е."



