

THE LACTOSERIN Co. LIM.
STOCKHOLM.
SWEDEN.

TESTIMONIALS AND ANALYSIS.

WILHELM REHNSTRÖM'S
PATENTS.

LACTOSERIN

—AND—

Ur KB:s samlingar

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1890.

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WILHELM REHNSTRÖM'S
PATENTS.

LACTOSERIN

—AND—

CASEIN.

WITH THEIR PREPARATIONS.


1890.



Translation.

On the request of the dairy engineer, Mr. W. Rehnström, to obtain from us a report, we, the undersigned, do hereby certify the following:

Mr. Rehnström, who, during the last years, has been working to solve the problem of *the advantageous utilization of the separated milk that is low in fatty matter*, as the same cannot be used direct as human food or for feeding the domestic animals, has, in two inventions patented by him, tried to solve this question, namely:

Partly by the patent »*Casein foddercakes*», for feeding cattle intended for producing milk or to be fattened, whereby the casein in the milk is precipitated, and in a dry, finely pulverized condition is used for the preparation of the said strong fodder.

Partly by the patent »*Lactoserin*», which relates to the utilization of the cheese-whey as human food, when more or less skim-milk is added at the making of the preparation.

In consequence of these preparations being already appreciated by Swedish scientific men, Mr. Rehnström has asked us to give our opinion as to the practical value of these inventions as to their prospects in our country, and consequently we beg to state: that great quantities of separated milk, during certain times of the year, require another and more profitable use than is now the case.

That the use of the superfluous skimmed milk is a standing question, and of the greatest importance in the future for our agriculture; that the manner in which Mr. Rehnström has solved this question is as well practical as, according to the statements of scientific men, of great importance for the raising of the agriculture, as the skimmed

superfluous milk thereby will rise to a higher value than is now the case.

In consequence of the above said, we are ready to give our recommendation, as desired.

Stockholm, March 20th, 1889.

CHR. LUNDEBERG.

Address: Forsbacka, Margretekäll.

HUGO TAMM.

Address: Fånö, Stockholm.

GUST. TAMM,

Stockholm.

GUST. AF UGGLAS,

Stockholm.

GUST. DE LAVAL,

Stockholm.

This is to certify that the foregoing is a true and correct translation of the original certificate produced to me, and that it has been confirmed before me by faithful persons that Mr. Chr. Lundeborg, the Baron Hugo Tamm, the Baron Gust. Tamm, the Baron Gust. af Ugglas and Mr. Gustaf de Laval, have signed this document; and that these men are prominent persons and worthy of the greatest trust and confidence.

In witness whereof my hand an official seal.

Stockholm, 12 November, 1889.

L. G. HERLITZ,

Notary Public.

[SEAL.]

Fees, 5 Kr. 50 öre.

UNITED STATES CONSULATE. }
At Stockholm, Sweden. }

I, NERE A. ELFWING, Consul of the United States of America at Stockholm, do hereby certify that the signature of L. G. Herlitz is his true and genuine signature; and that

he is a Notary Public, duly appointed and sworn in this City of Stockholm.

Witness my hand and official seal, this 12th day of November, 1889.

NERE A. ELFWING,

[SEAL.]

Consul.

This is to certify that the documents here annexed are true and correct translations of the original documents produced to me, and that it has been confirmed before me by faithful persons; that Mr. C. E. BERGSTRAND, Professor, former Agricultural Chemist to the Royal Agricultural Academy, Member of the Royal Scientific Academy of Stockholm, Knight of the Royal Order of the North Star, and of the Royal Spanish Order of Charles III, THE BARON GUSTAF AF UGGLAS, late Governor-General of Stockholm, and Mr. J. ARRHENIUS, Professor, late Secretary of the Royal Agricultural Academy, Commander of the Royal Orders of the North Star and Wasa, etc., etc., have signed the foregoing certificate, and that these men are worthy of the greatest trust and confidence; in witness whereof my hand and official seal.

Stockholm, November 9th, 1889.

[SEAL.]

L. G. HERLITZ,

Notary Public.

Fees, 5 Kr. 50 öre.

UNITED STATES CONSULATE. }
At Stockholm, Sweden.

I, NERE A. ELFWING, Consul of the United States of America at Stockholm, do hereby certify that the signature of L. G. Herlitz is his true and genuine signature, and that he is a notary public, duly appointed and sworn in this City of Stockholm.

Witness my hand and official seal, this 9th day of November, 1889.

NERE A. ELFWING,

[SEAL.]

U. S. Consul.

Translation.

This is to certify that at the request of Mr. W. Rehnström, Dairy Instructor, I have, two years ago, made some feeding trials during a time of three months, with fresh curds on about twenty milking cows, here at Berga, with the view of ascertaining the effect of the curds on the yield of milk, as well with respect of the quantity of the milk as of its rate of fat, and these trials tended to prove that, if it could be possible to bring the curds in the market in a better form, the end in view was considered to be gained—namely, during certain months of the year, to obtain another, or economically better employment of the skim-milk than that common at our dairies in general, particularly at such times when an increased supply of milk can occasion troubles and act depressing upon our cheese market, already rather dull.

This month I have now received a lot of Mr. Rehnström's patented fodder-cakes, which present a happy result of Mr. Rehnström's persevering efforts, and judging by the feeding trials of the same, now in course here, these fodder-cakes are, by several reasons, meeting the greatest attention and applause.

Berga, near Stockholm, Nov. 12th, 1888.

Signed.

[SEAL.]

C. G. BREDBERG,

Late Captain in the Royal Navy.

This is to certify that the undersigner of the certificate below, Mr. C. G. Bredberg, Late Captain, whom we know personally, is one of the most eminent landowners of our country, and, particularly, one of those who has devoted attention to matters relating to cattle breeding and the dairy trade, and that we, as well, in consequence of that, as with the knowledge we besides possess of Mr. Bredberg's character, are of opinion that full and unrestricted credit can be paid to what Mr. Bredberg has communicated with respect to

the feeding trials he has made with the Dairy Instructor W. Rehnström's patented fodder-cakes.

Stockholm, January 31st, 1889.

GUSTAF AF UGGLAS,

Late Governor-General of Stockholm, Baron.

DR. J. ARRHENIUS,

Professor, Late Secretary of the Royal Agricultural Academy, Commander of the Royal Orders of the North Star and Wasa, etc., etc.

Translation.

Examination: »Caseine Fodder-Cakes» (a preparation composed of Feeding-oil-cakes, meal, dry curd, and a little part of mineral matters), prepared according to the patent of Mr. G. A. Brinck and Mr. A. W. Rehnström.

Analysis:

Water	14.06
Proteine matters	33.31
Fat.....	7.02
Hydrocarbures.....	37.56
Ashes:	
Dissoluble in acide (principally phosphates)	6.89
Indissoluble in acids	1.16
	100.00
Azote (N.)	5.33
per cent.	

The part of the hydrocarbures that consists of cellulose, or vegetal fibres, has not been particularly determined, but can be computed to about 9 per cent. The quantity of nutritious hydrocarbures can, consequently, be estimated to about 28.56 per cent.

The azotic, or flesh and milk producing ingredients in these cakes may, at will, be increased or diminished by adding a greater or smaller quantity of curds.

An addition of dust-fine bone powder (mineral matters) not only promotes the health and the vital power of the

milking and flesh producing animals, but acts also very advantageously upon the secretion of milk itself (see also Professor Emil Wolff's opinion, in this respect, expressed in his scientific work »On the Rational Feeding of the Domestic Animals«).

According to the results obtained, as well at practical trials of feeding animals, as at scientific investigations, it has been ascertained that the »Caseine Fodder-Cakes« promote not only the quantity of the milk, but also its yield of fat, or improve the qualitative properties of the same in general.

Stockholm, January 26th, 1889.

DR. C. E. BERGSTRAND,

Professor, former Agricultural Chemist to the Royal Agricultural Academy, Member of the Royal Scientific Academy of Stockholm, Knight of the Royal Order of the North Star and of the Royal Spanish Order of Charles III.

[SEAL.]

Translation.

The dairy engineer, Mr. W. Rehnström, has shown to me different preparations composed of skim milk and whey, etc., which preparations are patented under the name of »LACTOSERIN«, and have for purpose to utilize, in a great extent for the future, a part of the skim-milk in our country.

Analysis and certificates of the same patented preparation, executed by the Professors, Messrs. C. E. Bergstrand and J. Arrhenius, have also been submitted to me, and in consequence hereof I am of the same opinion as these gentlemen, namely, that the preparation »Lactoserin«, properly utilized in our industry, very likely will be of great use to the agriculture of our country, by means of raising the value of the milk and benefiting the population by the introduction of a new and wholesome food.

Upsala, March 21st, 1889.

OLOF HAMMARSTEN,
Professor.

This is to certify that the foregoing is a true and correct translation of the original document produced to me, and that it has been confirmed before me by faithful persons, that Mr. Olof Hammarsten, professor, has signed the foregoing certificate, and that the said Mr. Hammarsten is worthy of the greatest trust and confidence; in witness whereof my hand and official seal.

Stockholm, November 9th, 1889.

[SEAL.]

Fees, 5 Kr. 50 öre.

L. G. HERLITZ,
Notary Public.

UNITED STATES CONSULATE. }
At Stockholm, Sweden. }

I, NERE A. ELFWING, Consul of the United States of America at Stockholm, do hereby certify that the signature of L. G. Herlitz is his true and genuine signature, and that he is a Notary Public, duly appointed and sworn in this city of Stockholm.

Witness my hand and official seal, this 9th day of November, 1889.

[SEAL.]

NERE A. ELFWING,
U. S. Consul.

Translation.

Having, during many years, known the engineer, Mr. W. Rehnström, as being a very active and meritorious dairy engineer in the government districts of Westmanland, Kopparberg and Gefleborg, I have now had the advantage, during a visit of him, to get knowledge of by him manufactured casein-fodder-cakes, which, as well according to chemical analysis as with regard to their consistency and intimate mixing of caseine and oat-mash, flour of rape-seed and flax-seed, indisputably are of great value as fodder, and

also to make it possible by their manufacture to utilize in the very best manner the skim-milk present in greater dairies, what is a pleasure to me to certify by the present.

Several finer preparations of chocolate etc., with caseine-flour have also been handed to me by Mr. Rehnström and found quite satisfactory.

Stockholm, Nov. 13th, 1888.

J. ARRHENIUS,

*Late Secretary of the Royal Agricultural
Academy, &c., &c., &c., &c.*

[SEAL.]

This is to certify that the foregoing is a true and correct translation of the original document produced to me, and that it has been confirmed before me by faithful persons; that the late Mr. J. Arrhenius, late Secretary of the Royal Agricultural Academy, has signed the foregoing certificate, and that the said Mr. Arrhenius was worthy of the greatest trust and confidence; in witness whereof my hand and official seal.

L. G. HERLITZ,
Notary Public.

[SEAL.]

Fees, 5 Kr. 50 öre.

UNITED STATES CONSULATE. }
At Stockholm, Sweden. }

I, NERE A. ELFWING, Consul of the United States of America at Stockholm, do hereby certify that the signature of L. G. Herlitz is his true and genuine signature, and that he is a Notary Public duly appointed and sworn in the city of Stockholm.

Witness my hand and official seal, this 9th day of November, 1889.

NERE A ELFWING,
U. S. Consul.

Translation.

ANALYSIS OF »DOUBLE LACTOSERIN».

Of which a test has been sent from the Dairy Engineer,

MR. W. REHNSTRÖM.

Water	3.50
Caseine or azotic organic nutritious substances	22.18
Butter fat	1.16
Milk sugar or carbohydrates	65.66
Ashy substances, principally phosphates and alkali salts	7.50
	100.00

Quantity of Nitrogen (N.)..... 3.55 per cent.

Analysis as to the quantity of nitrogen in *Lactodensate*,
also from Mr. W. Rehnström.

Quantity of Nitrogen (N.) 4.02 per cent.

Corresponding to a quantity of caseine of..... 25.12 per cent.

Stockholm, July 7th, 1888.

C. E. BERGSTRAND,

[SEAL.]

Professor and Agricultural Chemist, &c., &c.

This is to certify that the foregoing is a true and correct translation of the original document produced to me, and that it has been confirmed before me by faithful persons; that Mr. C. E. Bergstrand, Professor and Agricultural Chemist, has signed the foregoing certificate, and that the said Mr. Bergstrand is worthy of the greatest trust and confidence; in witness whereof my hand and official seal.

Stockholm, November 9th, 1889.

L. G. HERLITZ,

Notary Public.

[SEAL.]

Fees, 5 Kr. 50 öre.

Copy.

ANALYSIS OF LACTOSERINE PREPARATIONS

and the like from

Mr. W. REHNSTRÖM.

For The Lactoserine Company, Limited.

No. of Test.	Water.	Azotic Organic Nutritious Matter.	Fat.	Not Azotic Organic Nutritious Matter.	Ashy Matter.	Total.	Nitrogen Per Cent.	Phosphoric Acid Per Cent.
1.	9.33	26.31	2.56	54.60	7.20	100.00	4.21	1.73
2.	10.20	22.06	2.83	57.81	7.10	100.00	3.53	1.60
3.	7.80	15.12	11.00	61.73	4.35	100.00	2.42	0.25
4.	9.91	18.87	5.50	59.52	6.20	100.00	3.02	0.92
5.	8.30	20.06	11.93	52.36	7.35	100.00	3.21	1.02
6.	26.00	22.43	0.38	38.24	12.95	100.00	3.59	1.21
7.	8.03	19.12	29.10	35.30	8.45	100.00	3.06	1.08
8.	13.46	27.25	3.66	46.98	8.65	100.00	4.36	1.22
9.	7.86	31.37	2.66	51.26	6.85	100.00	5.02	1.12

[SEAL.]

DR. C. E. BERGSTRAND, Professor, &c., &c.

Stockholm, Octobre 8th, 1889.

UNITED STATES CONSULATE. }
At Stockholm, Sweden. }

I, NERE A. ELFWING, Consul of the United States of America at Stockholm, do hereby certify that the signature of L. G. Herlitz is his true and genuine signature, and that he is a Notary Public duly appointed and sworn in this city of Stockholm.

Witness my hand and official seal, this 9th day of November, 1889.

[L. s.]

NERE A. ELFWING,
U. S. Consul.

This is to certify that Mr. C. E. Bergstrand, Professor, has personally acknowledged his signature under this document; in witness whereof, my hand and official seal.

Stockholm, November 9th, 1889.

[SEAL.]

L. G. HERLITZ,
Notary Public.

Fees, 5 Kr. 50 öre.

For a true copy.

Stockholm, November 9th, 1889.

[1 Kr.]

L. G. HERLITZ,
Notary Public.

UNITED STATES CONSULATE. }
At Stockholm, Sweden. }

I, NERE A. ELFWING, Consul of the United States of America at Stockholm, do hereby certify that the signature of L. G. Herlitz is his true and genuine signature, and that he is a Notary Public, duly appointed and sworn, in this City of Stockholm.

Witness my hand and official seal, this 9th day of November, 1889.

[L. s.]

NERE A. ELFWING,
U. S. Consul.

It will be seen herefrom that the *Lactoserine* preparation, in almost all cases, corresponds with the analysis made by Professor Koenig, and which is considered as normal type for a food for infants. The Lactoserine preparation is consequently, as far as the analysis is concerned, more typical a preparation than Nestle's, which in Europe, as a rule, is considered very valuable. To the Lactoserine preparation is however required to add 2, or at most, 3 per cent. of fat, in order to approach in every particular the compound of Professor Koenig's preparation; and as to the ashy substances, it is no disadvantage that the phosphates are preponderating.

Stockholm, March 4th, 1889.

DR. C. E. BERGSTRAND,

[SEAL.]

Professor, &c., &c.

This is to certify that Mr. C. E. Bergstrand, Professor, has personally acknowledged his signature under this document; in witness whereof, my hand and official seal.

Stockholm, November 9th, 1889.

L. G. HERLITZ,

[SEAL.]

Notary Public.

Fees, 5 Kr. 50 öre.

For a true copy.

Stockholm, November 9th, 1889.

L. G. HERLITZ,

[1 Kr.]

Notary Public.

UNITED STATES CONSULATE. {
At Stockholm, Sweden. }

I, NERE A. ELFWING, Consul of the United States of America at Stockholm, do hereby certify that the signature of L. G. Herlitz is his true and genuine signature, and that he is a Notary Public, duly appointed and sworn, in this City of Stockholm.

Witness my hand and official seal, this 9th day of November, 1889.

NERE A. ELFWING,
U. S. Consul.

[L s.]

The foregoing testimonials have been printed as translated, in consequence of their being officially certified to by U. S. Consul-General.

For further particulars and any information desired, please address.

Mr. A. WAHLIN,
Room 26,
33 William Street,
New York City.