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PUBLIC HEALTH

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AND

AGRICULTURE.

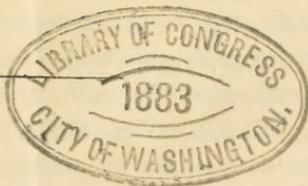
BY

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A. PEYSSON,

CIVIL ENGINEER.

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SANITARY MEASURES

AND

PROGRESS OF THE AGRICULTURE.

HIGHLY INTERESTING AND IMPORTANT TO THE PUBLIC.

May we be permitted to speak as an European, (since the city of Philadelphia has been taking a view of the capitals of Europe,) and be allowed to propound this question: Have the means of remedying the scourge pointed out been really known on this side of the Atlantic? They have not. How have you exterminated the yellow fever, and even the plague at Philadelphia? By removing stagnant waters, and every other source from whence escape these deplorable epidemics. But it must be confessed that they appear to have been replaced by another kind of pestilence, that of the cholera. It is certain that it is only by hygienic measures that the population can be secured from its destructive effects; no one can dispute it. But how is it that you remove, by sanitary regulations, fragments of vegetables, oyster shells, &c. &c., from before the door, and yet leave near your houses immense wells or reservoirs filled with matter deleterious to the last degree, which every day mingles with your aliment, and the air you respire? You will comprehend by the terms wells or reservoirs, those infected places which we describe, and whose contents, 'in consequence of infiltrations and other chemical laws, mingle with every organic system, animal as well as vegetable. After this short preamble, we shall take the liberty of explaining our views, as a chemist and engineer; on a subject like this, our expressions must of course be technical, and we entreat our readers to suppose that we are addressing them, as a professor of chemistry or medicine would address an auditory, who only required a knowledge of facts, and that without any disguise whatever.

EXPLANATION

Respecting an establishment for the transmutation of feculent matter into inoderous and chemical manure, addressed to the population of Philadelphia, by AUGUSTUS PEYSSON, Engineer, and last chief Engineer of the French general company.

Philadelphia, a city, containing a population of more than 400,000 inhabitants, and one of the most remarkable in the world for its cleanliness, comfort, and civilization; Philadelphia is yet destitute of an establishment for the removal of feculent matter at mid-day, without any inconvenience resulting from it. How is it, that, in so large a city, this plan of disinfecting the domicile has never been adopted. There is not a habitation which possesses the moveable cesspool of Europe, constructed so as to separate solids from liquids.

The idea has scarcely been conceived of creating an establishment for the reception of the products of these sinks, in order to convert them into chemical manure, which, for purposes of agriculture is infinitely superior to guano or poudrette. There exists a most important difference in the manufacture of poudrette and that of chemical manure, produced from cesspools. The process of manufacturing poudrette deprives the feculent matter of more than one-fourth of its richness in azote, while, by another system, the transmutation of this matter into artificial or chemical manure, preserves it in all its rich fecundity.

The establishment which we propose to create will combine the concentration and drying of muscular flesh and blood, arising from slaughter-houses and all animal remains. But not to digress from the point in question, we will merely state what is most interesting as regards the health and comfort of the public; and, on the other hand, its advantages in respect to agriculture. With these views, active researches have recently been made with the most complete success. The causes of infection which

are to be met with near almost every house in great cities, such as Philadelphia, are the vaults or sinks from whence a pestilential and insupportable vapor is almost constantly exhaled from the conduits connected with them. This effluvium is still more contagious when the process of cleansing takes place. The transportation of this matter through the streets, when it is effected without the precaution of first disinfecting it, or using means for preventing the gas from escaping, presents the most serious inconveniences. In a large number of cities, the contents of these places are infiltrated through the ground, and continually diffuse noxious exhalations from which result the most serious diseases, and the effects of these exhalations are especially to be dreaded when the cholera or any other epidemic makes its appearance. It is principally in regard to Philadelphia that we should state these baneful effects, as the vaults are all deep and admit of infiltrations through the earth. From the immense surface of ground which Philadelphia covers, there escapes, besides the odor which characterizes all feculent matter, hydro-sulphate, and carbonate of ammoniac, (the effect of which is felt at a distance of more than two miles from the city.) These emanations not only diffuse an infectious miasma, but they ruin gilding and painting, and metals are oxidized by them; results which are caused by a combination of sulphuric acid with metallic substances. We also add, that the evacuation of these vaults by the methods now employed are extremely insalubrious to the poor laborers who pursue this disgusting calling. By a new system the fermentation or decomposition of this matter is instantaneously diminished to such a degree, and the gas so completely absorbed, that the most offensive odor gives place to a slight emission of ammoniac gas, to which the operator very soon becomes insensible. The hydro-sulphuric acid which was emitted previous to the operation, unites so rapidly with the ammoniæ, that a silver blade plunged into the matter still humid retains its color and metallic brilliancy, while in the organic matter, used prior to the disinfecting process being employed, stains or blackens the silver in every part. The application of this method for disinfecting

cesspools, would by degrees impart salubrity to every portion of this densely populated city. The disinfection of vaults connected with dwellings is extremely important, not only in a hygienic point of view as regards the public health, but the benefits which result from it are also highly important in connection with agriculture, as it preserves in all its value as manure the ammoniacal part which is contained in it. We can also state that by this method the value of manure is considerably enhanced, as it may be kept for an indefinite period, without any odor arising from it. This stercus, whether composed of solid or fluids, in consequence of the variety of salts it contains, and especially of the ammoniæ and other azotic substances contained in it, constitute it a powerful and abundant source for the manufactory of manure, which hitherto has not been made as available as it might have been, or received that attention of which it is worthy. Important advantages might be derived from this source of manure, the results of which have hitherto been very incomplete, as no means have been used to prevent the evaporation of the volatile salts of ammoniæ contained in it, and the liquid and solid portions of this matter have been frequently cast aside as worthless, when by careful preservation, they might have been turned to great profit. In order to perfectly appreciate the immense advantage of preserving this organic matter, with all its fertilizing properties, in lieu of allowing them to be dissipated in the atmosphere, it is important to remark that the new chemical manure possesses a fertilizing power at least ten times greater than that of poudrette. Experiments made in France and Germany by the best chemists and practical agriculturists, prove that soil which it is supposed would without any manure produce three times the quantity of seed sown, would yield with a slight application of manure of

Decayed vegetable matter, . . .	5 times the seed.
Stable manure	7 $\frac{1}{5}$
Pigeon manure	8 $\frac{1}{6}$
Horse manure	9 11
Guano	10 $\frac{1}{7}$
Fluid stercus	12 11
Solid stercus	14 11

After having rapidly analyzed the operation of the disinfecting of feculent matter, or of its conversion into manure, we would add that the quantity of azote* contained in the *stercus* arising from one individual in the space of one year, is rather more than two pounds, a quantity sufficient, according to Messrs. Bousingault, Payen, Girardin, and other chemists of celebrity, for the production of 800 pounds of wheat, rye or oats, that is to say a sufficient quantity of azote to manure during one year twenty acres of land, and if a tobacco plantation was manured with the artificial manure manufactured from feculent matter, benefits of the highest importance would accrue from it. It is as well to mention that blood concentrated and dried is sometimes preferred for the culture of the sugar cane. France exports a considerable quantity of this kind of manure, at the price of four dollars and fifty cents the two hundred pounds. By this new method, not only all fluids sufficiently charged with organic matter and azote, but all solids produced from animal remains, are immediately converted into inoderous manure. This method, also, which is the most general, increases the means of enriching land, and it must everywhere gradually supply the insufficiency of manure. In a short time it gives all the advantages of decomposition, and the manure resulting from it can be immediately employed and placed in contact with seed sown, radicles, stalks, and the most delicate leaves. It yields but slowly to atmospheric influences, or to the action of the fungous or spongy extremities of roots, and the gaseous or soluble products they contain. It thus gradually furnishes, without exhausting itself, every thing that contributes to the development of animal plants. This manure, if even used to excess, never changes the agreeable flavor of fruits, leaves, or roots, but develops all their aromatic properties. These facts are now proved by numerous agriculturists in Europe, who have employed this kind of manure. Although five measures of two hundred pounds each suffice to manure one acre of land, ten times that quantity has sometimes been employed in gardens, principally to forward the growth of young fruit trees, as well as revive

* Azote is the most fertilizing property contained in manure.

others which had been transplanted, and also to hasten the vegetation of green swards, or lawns, where seed had been sown in autumn. In the application of this artificial manure, the same accidents have never been experienced, which more active manure, such as guano, and others, are liable to; and it is also evident that by the chemical agents employed in the fabrication of it, there is no inconvenience to be apprehended from the myriads of insects, and parasitic plants imported with the ordinary manure.

CONCLUSION :

The principal facts of this statement, give the following results :

1st. The establishment of moveable cesspools, adapted for separating the solids from the liquids, in such a manner as to disinfect the former, and put the latter in such a state as to prevent it from becoming putrid. These preparations can be placed in a cellar or room and be submitted to such modifications as will allow of their being deposited in any locality, so as to be removed at all times without any effluvia.

2d. The continual disinfection of the cesspools.

3d. The removal of existing matter in old vaults, and by a preparation extracting from it all offensive odor, and converting it immediately into manure. The manure produced from organic matter is of much greater utility, as its spontaneous and slow decomposition is much better adapted to the development of vegetables.

4th. The muscular flesh and blood of various animal remains, as well as manure, which was formerly by neglect impaired so as to lose from one-fifth to the nine-tenths of their productive qualities, can now be rendered available without any deperdition.

5th. The powerful drying and disinfecting action of the process in question may be employed for the preservation of substances extremely subject to decay, and the solution of problems of the highest interest and importance to the public health.

6th. The suppression of these infectious depositories where the night soil is placed, in order to be converted into manure, commonly called *poudrette*. The manner in which this *poudrette* is manufactured, at present, is the *ne plus ultra* of prodigal waste. It is also asserted that this manure, a kind of mould, impoverished by the method of its preparation, is so deprived of its properties, (azote or nitrogen,) that it contains only from .02 to .03 parts, whilst the *poudrette* or chemical fertilizer, made according

o the process of Messrs. Bousingault, Payen, and other reputed chemists, contains 75 or 80 per cent. of *azoted matter*, as by their method of manufacturing chemical manure, the fecal matter or stercus, loses but little, if any, of its fertilizing power. It is acknowledged that the decomposition of this rich compost is diminished to such a degree, as to admit of its being placed in contact with the spongioles and radicles, and also of applying it in general to all vegetables, without injuring or imparting to them its disagreeable flavor. It must be admitted that from this slow decomposition, there results a longer duration of the fertilizing principle in the manure in question. It is also known that plants must have precisely that kind of nourishment best adapted to them, as they can neither seek it themselves, or avoid what is pernicious to them.

7th. The union of an abattoir, or slaughter house, to the manufacture of chemical manure, would be highly important as regards the public health, and in an industrial point of view the advantages would be considerable. By adopting this plan, a great part of the materials used in the fabrication of chemical manure might be taken from the remains of horses, by converting them into products of great value. The blood could be transmuted into a powerful manure. The muscular flesh desiccated and reduced to powder, might be applied to the manufacture of chemical productions, such, for example, as Prussian blue. The bones could be carbonized and sold to sugar refiners and glue manufacturers. The skin and fat, carefully prepared, would be sure of a market. The intestines and all other offal might in a few moments be converted into fine manure, without the slightest inconvenience to the neighborhood.

The oil extracted from horses' feet is excellent for greasing machinery, and possesses a quality highly esteemed by enamellers. It is also extremely useful to Hungarian tanners and harness makers, in rendering their leather pliable. The horn is used in the manufacture of combs. It may also be reduced to a fine powder. (Pure, it is extremely valuable.)

The hair of animals also constitutes a good manure.

TO RESUME.

The slaughter of animals would become a source of wealth to industry, and especially in relation to agriculture.

The immense results obtained from this system in Europe, during a number of years past, leave no doubt as to the facts stated in our exposition.

On this subject may be consulted several late publications of some of the most respectable agriculturists, especially Messrs. Payen, Dailly, Bousingault, Liebig, Dempsey, Oscar Lecler, Marshal Bugeaud, De Rainerville, &c. &c.

A word in relation to the companies existing in Europe for the cleansing of sinks; the establishment of moveable cesspools; the slaughter of horses; the desiccation of blood; and, in short, the conversion of all this offal into concentrated and inodorous manure.

The companies in France engaged in this business are composed of rich capitalists, who manage and control the affairs of the establishments, and for this reason the profits annually accruing to the establishments are known only to themselves.

We can therefore give no accurate information on this head, but only affirm, that all these companies, without any exception, are in a prosperous and flourishing condition.

At Paris we can name Domange. This society is principally occupied with moveable cesspools; it possesses about 12,000. It also attends to the cleansing of the old cesspools that are still in existence. The rent of each moveable cesspool is sixty francs, twelve dollars, per annum. The emptying is fifteen francs, three dollars, per ton. Each vehicle contains two tons. This company vends its manure which contains 2, 76, 70 of azote at the rate of 7 francs, 50 cents, the 100 kilograms, which makes 15 dollars per ton. Mr. Domange, the founder of this society, has realized on his own personal account two millions of francs, or \$400,000; but was compelled to withdraw from it three years since, in consequence of ill health, and disposed of his interest or agency for the sum of \$200,000. From these facts, which are known throughout Paris, we may infer what must be the annual profits of this company. As regards moveable cesspools, we may consult the excellent report of Messrs. D'Arcet and Parent Duchatelet. The following is a short analysis:—

“The counsellor of health at Paris, author of this report, in the first place establishes the principle, that solids must be separated from fluids, and that this separation must take place in the sinks themselves. He afterwards admits that this apparatus has been known for more than twenty years, and existed by thousands in the interior of Paris, and has rendered immense service to the

public health." "Supplied with these," he remarks, "we need no longer fear infiltrations, or the expense consequent upon constructing water-proof sinks; they may be placed in a corner of the cellar or wood-house, in the coach-house, stable or wine-cellar; and the removal of the full apparatus, as well as the depository of the empty ones, may be effected in broad daylight without the least uncleanness or offensive odor. Is it astonishing, that after employing this machinery, they should daily increase, and that they now supercede at Paris the former old-fashioned cesspools?"

Signed,

PARENT DUCHATELET. (1838.)

It is easy to perceive by this report the serious inconveniences resulting to the city of Paris, from the laws enacted under the reign of Francis I. and Louis XIV., which allowed the excavations of sinks under ground.

The Salmon company (animal manure manufactory) is in great prosperity.

Extract from the annals of the agricultural society, under the name of *Animalized Black Salmon*, or the devil burnt into black powder. The results obtained from a daily manufacture of about 300 hectolitres, and the certificates of our most distinguished agriculturists upon the vast extent of land under cultivation, admit of no farther doubt as to the quality of this manure.

Signed,

A. PAYEN.

The Lusarche company, which possesses a capital of six millions of francs, and employs the method of Messrs. Payen and Bousingault, has a vast establishment, not only at Paris, but in several other cities in France—Nantes, Rochefort, Clermont-Ferrand and Avignon; the latter city, especially, yields a considerable revenue by the sale of its manure for the culture of madder.

Finally, in order to fully appreciate the condition of this company, it is only requisite to advert to the following fact: the Marquis of Breves purchased and paid 300,000 francs for the share of one of the partners, and this share was only five per cent. of the profits alone.

The Bondy company, with a capital of 2,500,000 francs, known for many years, export all their manure to Holland and England, at the rate of fifteen dollars per ton, taken at Paris.

The Sviet company.

Disinfection of domiciles.

The company for concentrated manure, such as flesh and blood, sell it at four dollars the 100 kilograms, or forty dollars per ton, containing from 12 to 14, 70 of azote. This manure, in particular, is sent to the colonies for the culture of the sugar-cane.

In the Anbert-villiers Acattovis, or houses for the slaughter of horses, near Paris, they slay and skin about 12 to 13,000 horses per annum, and the profit may be arrived at from the fact, that the proceeds of every horse average from 60 to 70 francs, or from \$12 to \$14.

At the present day all the cities of France, according to their population and locality, have establishments for the above manufacture. England commenced in 1847. The company now existing at Liverpool, bought the process at Paris, and paid for it about \$500,000. All the principal cities of Russia have their moveable cesspools and inodorous manure.

It would too much lengthen this statement to enumerate all the different companies which are successfully engaged in this lucrative business.

TO CONCLUDE.

It may be mentioned, that after the creation of this establishment in France, Mr. Cunin Gridaine, minister of agriculture and commerce, proved that by means of the progress made upon animalized manure, (which was formerly lost,) France will in future be enabled to produce from her soil a proportion of twenty-seven and a half per cent. more than ever before obtained.

It was after an enumeration of all these facts, and after patient research and mature reflection upon the application of these systems to the United States of America, that in February, 1850, we were presented to the Philadelphia Agricultural Society by Mr. Gowen, now President of that society. Dr. Elwyn, who then presided, requested us to make an experiment, and appointed the 9th of March, 1850, at the Agricultural Institute, at Germantown, under the direction of Professor Wilkinson. This gentleman pointed out the sink, and in presence of Messrs. Gowen, Samuel L. Richie, Dr. Elwyn, Mr. Wilkinson, and several other persons, as well as the pupils of the Agricultural School, we commenced our experiment. We first united the azote to the matter, then disinfected it, and instantly converted it into manure. The whole operation lasted but fifteen minutes. This manure was employed at the expense of the State by Professor Wilkinson, who, after having awaited its effects upon agriculture, rendered an account of them in the Germantown Telegraph, (March 5th, 1851.)

NIGHT SOIL.

MR. FREAS,—I take great pleasure in stating that Professor Peysson rendered to me the most satisfactory evidence of his skill in disinfecting and preparing Night Soil for agricultural purposes.

He came to the Institute in March last, and took the entire contents of a privy, and succeeded in a very few minutes in destroying or removing all offensive odors, in fixing the ammonia, and preparing the mass in a manner that it was suitable for application as a fertilizer.

I applied the poudrette which he prepared, on potatoes, in competition with prepared guano, good rich compost, Peruvian guano, (sown broadcast at the rate of 300 lbs. per acre, plowed in,) and barn-yard manure at the rate of thirty two-horse loads per acre, and the result of the comparative effects of the different fertilizers was as follows:—

The crop produced by the application of yard manure was about 210 bushels per acre; the poudrette prepared by Professor Peysson, 190 bushels; the prepared guano, 185 bushels; and the Peruvian guano, 158 bushels per acre.

The amount of poudrette applied was about five bushels to one load of the yard manure, or about 150 bushels per acre.

The amount of excrementitious matter was about three cubic

feet in five bushels of the poudrette. It was free from unpleasant odors, and in no way disagreeable to handle or apply.

I have full confidence in the scientific knowledge and skill of Professor Peysson, in the manufacture of poudrette, and other valuable fertilizers from many substances that have generally been wasted in our cities, and when neglected have been the source of miasmas.

I have diligently examined the diagrams, and carefully perused the description of Prof. P.'s apparatus for the manufacture of fertilizers and chemicals from the refuse of cities, and consider it complete and efficient, and decidedly preferable to any thing of the kind that has ever been presented to the public in this country. I am satisfied that the investment of capital, by a company, who would carry out Prof. P.'s system, would yield a good return; at the same time, those engaged in the business would, while they remove a great nuisance from the city, furnish large and valuable supplies of the most valuable fertilizers to the farmers at a very moderate cost.

JNO. WILKINSON.

Mount Airy Agricultural Institute, Germantown, Pa., Feb. 24, 1851.

We, at the same time, wrote to the President, Mr. Gowen, requesting him also to furnish a report. Mr. Gowen, not having a perfect knowledge of the operation in general, or of the plans which we had presented for the creation of an establishment, the importance of which was explained in this exposition, appointed a committee for the express purpose of making a thorough and scrupulous examination.

1st. Whether the chemical processes employed for disinfecting fecal matter might not deteriorate the fertilizing properties of the substances acted upon?

2d. Whether the mechanical process applied in the same manner as the preparation of chemistry to the arts, was not susceptible of being put into practice?

3d. The question of agricultural advantage?

4th. The public health.

The committee was composed of

Alger. S. Roberts, Esq., Chairman of the Committee,
John C. Cresson, Esq., Engineer of Philadelphia Gas Works,
M. H. Boye, Esq., Professor of Chemistry,
Charles B. Trego, Esq., Secretary of Philadelphia Institute,
Dr. Elwyn, Member of Agricultural Society,
John S. Haines, Esq.

The committee presented its report to the Society at one of its meetings, presided over by Mr. Gowen, and ordered their report to be published in the North American and United States Gazette, the 14th May, 1851.

The Committee appointed by the Philadelphia Society for promoting Agriculture, to examine the method and propositions of Mr. Peysson, for the disinfecting and cleansing of cesspools, and the manufacturing of chemical manure,

REPORT :

That so far as practicable, from drawings, estimates, documentary information, and the explanations of Prof. Peysson, they have given the subject referred to them a careful investigation. They regret, however, that no opportunity has been offered to the committee of testing the prepared manure, or witnessing its effects upon growing crops.

Mr. P. claims for his process, both of disinfection and manipulation, considerable originality, and great improvement over previous methods of accomplishing the same purpose; and the committee believe that his plan is entitled to favorable consideration.

The disinfection of cesspools, and the purification of the atmosphere infected thereby, have long engaged the attention of the scientific; while the economical application of the fecal and other matters of large cities is of primary importance, especially to a community like ours, surrounded by an agricultural country, the soil of which requires constant replenishing to sustain its productive powers.

In the city of Paris more successful modes have been adopted than elsewhere; and the result is highly promotive of cleanliness and health, while the profit is represented as being very large. This may readily be admitted, when, according to Liebig, Dempsey, and others, the nitrogen resulting from any amount of population is equal to the supply required for two pounds of bread per diem for every one of its members; and the total manuring matter, solid and liquid, produced in a town, are, as computed by G. D. Dempsey, C. E., equal in weight to one ton annually for each inhabitant.

In London, the subject of sewerage, drainage and cleaning of cesspools is engaging increased attention, and various means have been proposed to the Metropolitan Commission of Sussex for collecting and applying to the improvement of the soil the vast amount of animal and vegetable substances that is constantly drained into the river Thames.

Some of these schemes have been practically adopted, and the

method of pumping out the contents of cesspools by means of hose, connecting them with air-tight tanks, somewhat similar to one of the plans of Mr. Peysson, is highly recommended for its economy, cheapness and efficiency.

It is not our province or duty, at this time, to discuss the policy of the prevailing system of sewerage and drainage in Philadelphia; nor whether the connection of water closets with public sewers, as now practised, and discharging their contents into the river, is preferable to such measures as might be less wasteful but more expensive.

There are, however, in our large city, immense quantities of animal and vegetable matter suffered to go to waste, and the collection and useful conversion of which are embraced in the plan of Professor Peysson, in addition to an entire change of the present rude and offensive cesspool constructions, which it is hoped "may soon be reckoned among the obsolete mistakes of our forefathers." Such is the care bestowed on the collection of fertilizing substances in Paris, that nothing capable, through the agency of the chemist, of being converted into manure, is suffered to waste. The abattoirs, or public slaughter houses of that city, contribute largely to the preservation of the health, economy and comfort of the inhabitants; our public authorities would do well to establish similar regulations in the city and county of Philadelphia.

Professor Peysson contemplates applying the Parisian process, in part, to his establishment, by connecting the bones, blood and other offals of slaughter houses, as well as dead horses, to the same purposes as in the French capital.

Philadelphia is particularly well adapted for the system under consideration; the level plot of the town, the width of the streets, the numerous courts and alleys which afford easy access to almost every property, the wide and rapidly increasing suburbs, furnish facilities and demand efficient measures, while the immediate vicinage of agricultural districts presents an inexhaustable market for all the manure that can, by the most careful process, be prepared.

In a sanitary point of view the scheme of Professor Peysson is especially important: but, as we understand that the Board of Health are giving it their attention, it is unnecessary to remark further on that branch.

Mr. Peysson's method of disinfecting and converting fecal matter into manure, more particularly engaged our attention as the proper inquiry for an Agricultural society.

His process, or the materials used, we were apprehensive might effect destructive decomposition, and deteriorate the fertilizing properties of the substances acted on.

A close and careful examination, however, satisfied Professor Boye that the fertilizing principles of his chemical manure are not impaired, and that he can by the proper application of the materials used, disinfect or deodorise fecal and offensive substances. His plan of operating on a large scale, in the opinion of the committee, can only be made efficient through the aid or instrumentality of the corporate authorities.

Mr. P. proposes establishing an association which shall conduct the business by means of agents, superintendents, &c., and estimates that a capital of \$100,000 would be sufficient for commencing and carrying on operations. Such an association would require an act of incorporation, and powers that could only be granted to them by the Legislature.

We, however, think that a subject in which all are interested should, like the Water and Gas Works, be in charge of the constituted authorities, and probably there is no branch of the City and District governments more suitable than the Board of Health. They could exercise more authority, and with less danger of collision than a private company, and especially would the farmers have more confidence that, in purchasing manure manufactured under their direction, it was what it purported to be.

An establishment of the kind, conducted with skill and economy, would, we feel assured, be both salutary and profitable to the city, while it would be an unfailing source of revenue to the agriculturist.

ALGER. S. ROBERTS,
JOHN C. CRESSON,
M. H. BOYE,
CHAS. B. TREGO,
JOHN S. HAINES,
A. L. ELWYN.

Philadelphia, May 5th, 1851.

The Board of Health, at our desire, appointed a committee, that fixed upon the 16th of May, 1851.

The experiment we then made was at the City Hospital, in the presence of

T. Wood, Esq.,	}	Members of Philadelphia Board of Health,
Daniel M. Fox, Esq.,		
Charles Delany, Esq.,		
Dr. Logan,		
Dr. Pleasants,		
Dr. Sewell,		
Dr. Rhein, Physician City Hospital,		
Daniel K. Miller, Esq., Northern Liberties,		
Charles B. Trego, Esq., Secretary of Philadelphia Institute,		
M. H. Boye, Professor of Chemistry.		

A complete disinfection was accomplished in a few minutes, a report of which, and the opinion of the Board of Health, was published in the North American and United States Gazette of June 10th, 1851.

PUBLIC HEALTH.

We understand that upon a careful examination of a plan for the purpose, submitted by Professor Peysson, a French chemist, the Board of Health has applied to him to know upon what terms he will contract to collect and carry away, or disinfect, the large quantities of animal matter and other offal which accumulate in the streets and other parts of the city. The method of Professor P. is that which is now used in Paris, London, and Liverpool; and besides having the advantage of effectually destroying the noxious influence of all decaying refuse matter which is so rapidly multiplied in densely populated localities, possesses the capacity of converting it almost at once, and at a very cheap cost, into a manure, which, in the amount and quality of its fertilizing properties, is represented to be far more valuable to the agriculturist than Peruvian guano. If Professor Peysson should be employed to remove or deodorize the largest and most offensive portion of those waste and putrefying substances which are now, in a great measure, left to rot in the sun and poison the air with their exhalations, the health of our city would be very materially increased. It is to be hoped, therefore, that his proposal to the Board of Health may be such as it can accept, and that a sanitary measure capable of so much advantage to the community may be speedily put in operation.

Professor Peysson has already prepared a plan for the formation

of a company, with a capital of several thousand dollars, to be subscribed in shares of a thousand dollars each, and from the great success which has attended similar associations in those European cities where the same method of manufacturing manure has been practised, there is no doubt that the stockholders will receive a very large profit on their respective shares. As on the establishment here of a corporation such as is projected, is dependent chiefly, if not entirely, the ability of Professor Peysson to make any engagement with the Board of Health for the benefit of the public, we trust that the enterprise may succeed.

The 17th May, 1851, an experiment took place at Mr. Gowen's, at Germantown, who published a report of it in the Pennsylvania Farm Journal, the 1st of June, 1851.

We know not how to conclude without expressing our sincere thanks to the members of the Agricultural Society, and also to the Board of Health, for their kindness in consenting to be present at experiments so little attractive, but with which are consequences so essentially important in an industrial and scientific point of view, their aim being the promotion of the public interest, and one of the greatest improvements in civilization.

It is proposed to form in the City of Philadelphia a company for the purpose of introducing the moveable cesspools, disinfecting and deodorizing the present cesspools, and the manufacture of chemical manure, similar to the systems pursued in Europe, as referred to in the preceding exposition.

The formation of such a company recommends itself to every capitalist from the following considerations:—

1st. It is proposed to produce an article for which there is an ever-increasing demand and a ready sale; that is, manure equal to and better than guano at one-fourth the price.

2d. The business being new, is not broken down nor enervated by competition, aside from the consideration that the process of manufacture is secured by letters patent in this country.

3d. The certainty of large profits to those engaged in the manufacture as is instanced by the companies of Liverpool and Paris.

Your particular attention is respectfully requested to this subject. We hand you herewith extracts from the proposed articles of association. If, after careful examination, you should decide upon becoming a stockholder in the proposed company, you will fill up the blanks in the sheet opposite to the articles of association, and forward it to the office of the company, No. 74 South Third Street.

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