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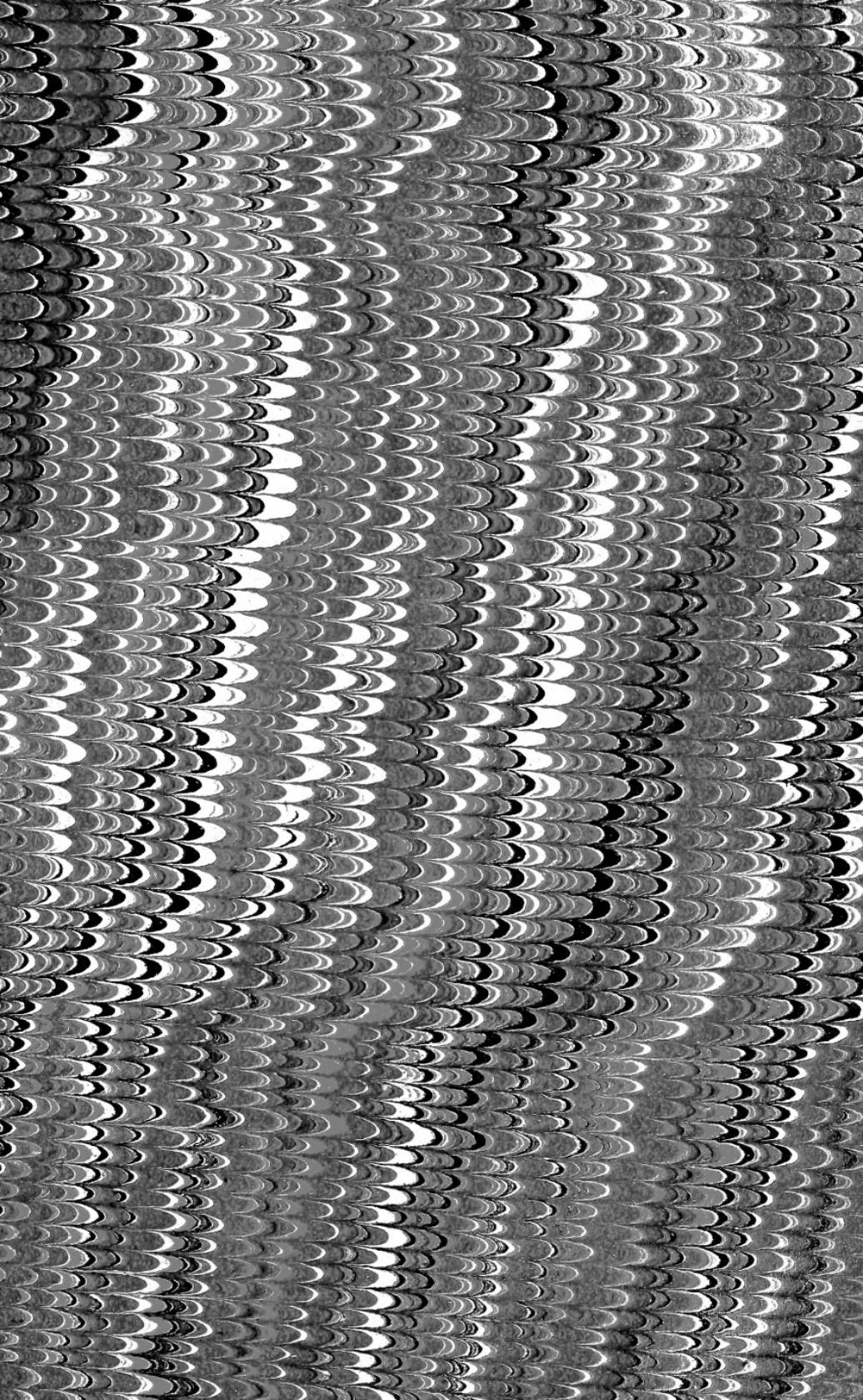
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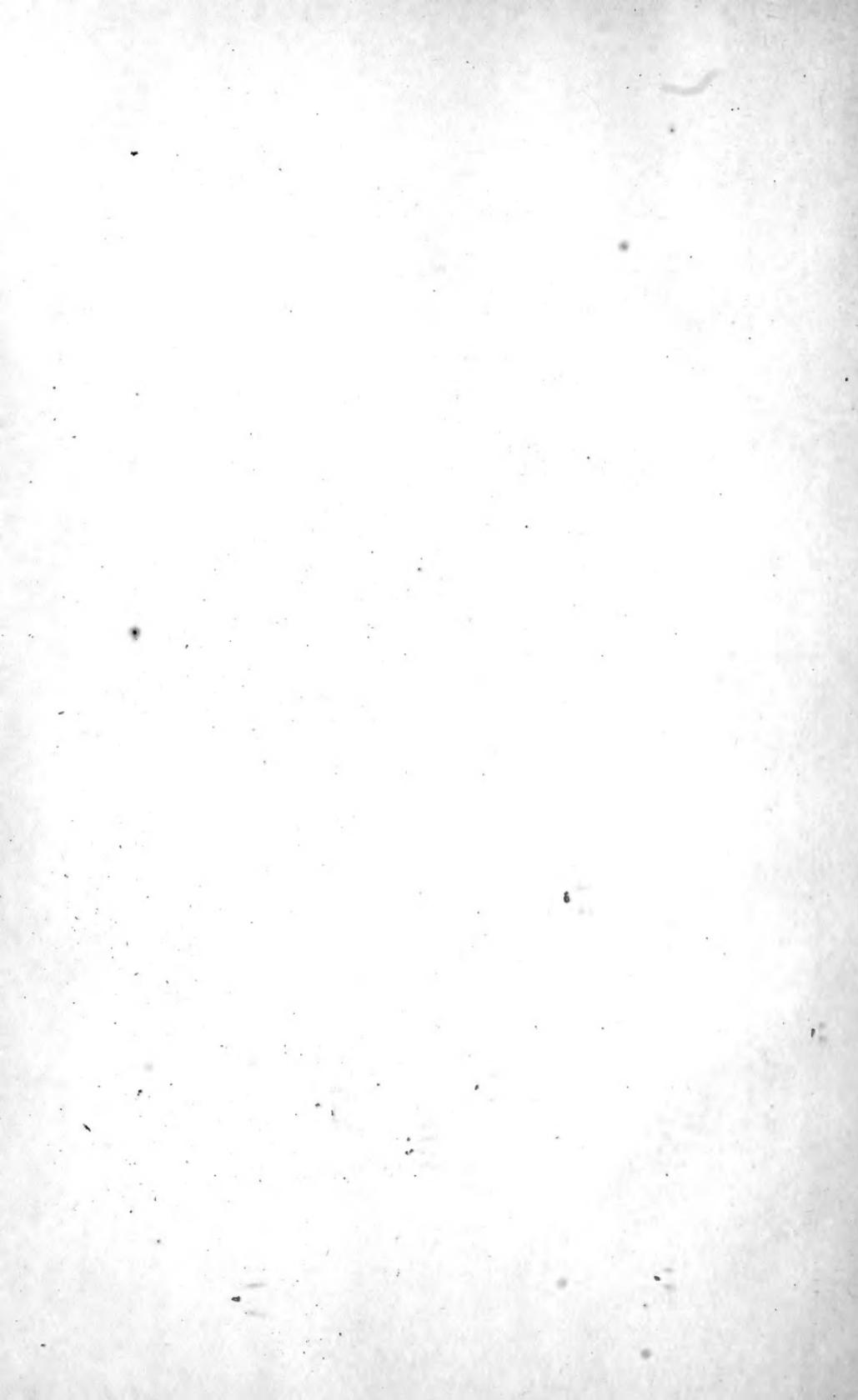
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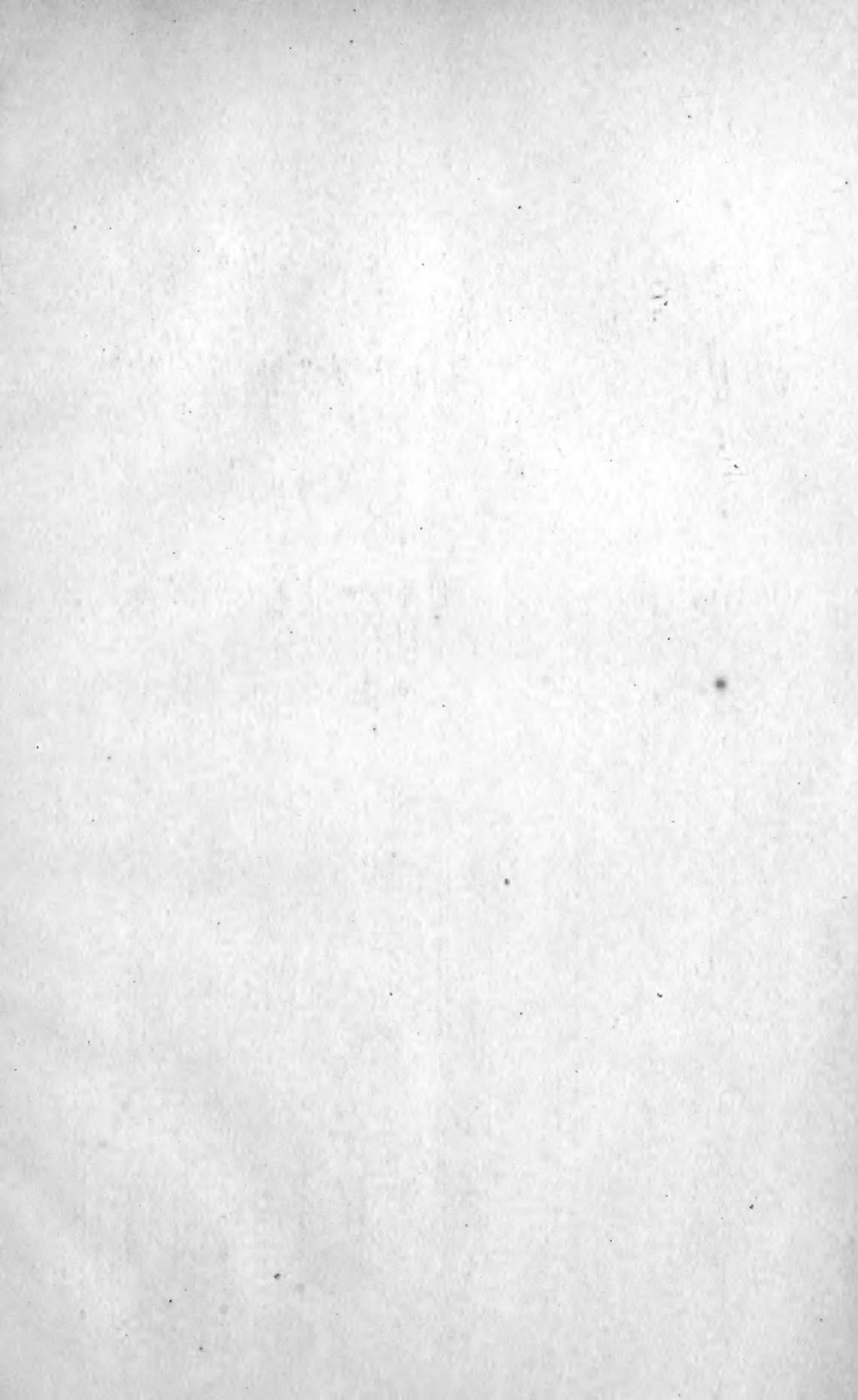
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BY

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AND

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1950

PHYSICS DEPARTMENT

UNIVERSITY OF CHICAGO

CHICAGO, ILLINOIS

AN ESSAY

ON THE

VETERINARY ART;

SETTING FORTH ITS GREAT USEFULNESS,

GIVING AN ACCOUNT OF THE

VETERINARY COLLEGES

IN

FRANCE AND ENGLAND,

AND EXHIBITING THE FACILITY AND UTILITY OF INSTITUTING
SIMILAR SCHOOLS IN THE

UNITED STATES.

To which is added,

A FEW HINTS UPON THE PROPRIETY OF CONNECTING
THEREWITH AN

INSURANCE UPON THE LIVES OF HORSES.



BY PETER A. BROWNE, L.L.D.,

PROFESSOR OF GEOLOGY AND MINERALOGY IN LAFAYETTE COLLEGE, EASTON, PA.;
PROFESSOR OF GEOLOGY IN THE CABINET OF NATURAL SCIENCE IN MONT-
GOMERY COUNTY; MEMBER OF THE GEOLOGICAL SOCIETY OF
PENNSYLVANIA; AND CORRESPONDING MEMBER
OF THE CABINET OF SCIENCE OF
CHESTER COUNTY.

“Ducit amor patriæ.”

PHILADELPHIA:

PRINTED BY JOHN THOMPSON,

Corner of Market and Second Streets.

.....
1837.

TO THE
HON. HENRY CLAY,
THE ENLIGHTENED STATESMAN,
THE FIRM PATRIOT,
THE PATRON OF AMERICAN TALENT,

AND

THE FRIEND OF AMERICAN INDUSTRY,

This little Essay is respectfully inscribed

BY

HIS FELLOW CITIZEN,

THE AUTHOR.

1941

1941

1941

1941

AN ESSAY
ON THE
VETERINARY ART, &c.

The word **SCIENCE** in its most comprehensive sense means *Knowledge*;—in its general acceptation it is “Knowledge reduced to a system;” that is to say, arranged in regular order, so that it can be conveniently taught,—easily remembered,—and readily applied to useful purposes.

An **ART** is the application of knowledge to some practicable end,—to answer some ornamental or useful purpose. The **Arts** are divided into the *fine** and the *useful*.

If the knowledge be merely accumulative experience, the art is called empiric; but if the knowledge is experience, guided by reason,—based upon general principles,—and brought under their control, it is a *scientific art*.

Veterinary comprehends a knowledge of the external form as well as the internal structure and economy of domestic quadrupeds, the appropriate management of them, and the nature, causes and cure of their diseases.

The **VETERINARY**† is “a **SCIENTIFIC ART**” in the strictest sense of the term. It invites its votaries to the following studies, viz:—

1st. The different *species*, and various *races* of the domestic animals;—their different *breeds*;—the uses to which each breed is applicable;—the useful *crossings* of breeds;—and the most economical and best methods of *producing*, *rearing* and *feeding* each class and breed.

2nd. The *breaking*, *educating*, *training* and *fattening* certain domestic animals.

3rd. *Commercial jurisprudence*, as regards domestic animals; including the uses to which can be applied, to the best advantage, their *flesh*, *hides*, *offals of their hides*, *tallow*, *hair*, *wool*, *horns*, *teeth*, *hoofs*, *entrails*, *blood* and *bones*.

* The Fine Arts are Architecture, Painting, Sculpture and Engraving.

† *Veterinarius*, a farrier, or one who lets horses to hire—Columella.

4th. The study of the *outward forms* of domestic animals, pointing out their *beauties*, marks of *strength* and *speed*, and their *defects*; together with the methods of ascertaining their *ages*.

5th. The *internal structure* of domestic animals;—their *anatomy*; their *comparative anatomy*; and the most humane and economical methods of making use of their *speed* and *strength*.

6th. The various *foods* used for the nourishment of different domestic animals;—the different methods of *raising*, *curing* and *preserving* them with the greatest economy, and in the greatest abundance.

7th. The various *medicines* required for domestic animals;—the most approved methods of *raising*, *curing* and *preserving* those that are *botanical*;—a general knowledge of those that are *mineralogical*; together with the manner of *mixing*, *preparing* and *administering* both those that are botanical and those that are mineralogical.

8th. The most effectual methods of *preserving* domestic animals from *contracting diseases*;—and the most approved means of *curing* those that contract diseases;—together with the methods used to prevent *contagion* and *infection* among them.

9th. The most approved plans for preserving domestic animals from *accidents* and *injuries*, and the performance of all kinds of *surgical operations* upon those that require them.

10th. The most approved methods of *shoeing* certain domestic animals; either generally, or when diseased or lame.

Among the animals which the ingenuity and perseverance of man have succeeded in domesticating, several much valued in other countries have not been introduced into the United States. As an example merely, I would mention the *Camel*, an animal that has been enslaved by our species from the earliest periods of time; an animal which is prolific in its state of captivity, possessing fleetness, strength and activity, surpassing that of most beasts of burthen; docile and contented with small quantities of the coarsest food furnished after long fastings, and abstaining from drink for a great length of time; an animal whose skin is capable of being tanned, and of whose wool is wrought the finest fabrics, while its young furnishes the most delicious food. Why should it not be a valuable acquisition to the inhabitants of the prairies of our far west? Even among the species of domestic animals common among us many varieties are wanting. Among the horses are the gigantic draught horses of the London brewers, distillers and coal merchants, which for figure and strength have no parallel;—many breeds of oxen, cows and sheep;—and of the goat, that variety which furnishes the material employed in the manufacture of the much admired Cashmere Shawls. Even among the dogs we have much improvement to make; the shepherd's dog,

and some others are known to us through the accounts of travellers only.

As mining operations progress in this country, we will require a much more abundant supply of Jack asses and mules.

One object of a Veterinary College is to encourage the introduction of useful animals into the country; another is the proper crossing of breeds already possessed; to which, it is well known that too little attention has hitherto been paid.

The Veterinary art also purports to teach the producing, rearing and feeding each class and breed of domestic animals, according to the most approved methods practiced in foreign countries, and there founded upon the union of science and experience. It is hardly possible to convey to the minds of those who have not travelled, and who have not paid particular attention to this part of the subject, an adequate impression of our deficiencies.

The breaking, educating, training and fattening of domestic animals, form the next and by no means inconsiderable items of instruction. It has often been remarked by foreigners, (and the remark is by no means unjust) that too little attention is almost every where in the United States paid to the breaking of horses. This important operation is generally left in the hands of unskilful persons,—men who have no scientific and very little practical knowledge of the subject; the consequences are that these animals are badly broke, perhaps contract vicious habits—they are rendered less useful all their lives, and not unfrequently serious accidents occur, sometimes attended with the loss of the limbs or even the lives of valuable citizens. The more our cities increase in population, and the greater the number of rail roads by which our country is traversed, the more necessary will it become that our cattle should be well broke, and hence the introduction into the United States of a College, where the art of breaking them will be taught, cannot fail to be productive of encreasing good.

Upon the proper training and educating of some other of the domestic animals, depends much of their usefulness. The dog, which here is an indolent animal, is in many countries made to earn his bread—the goat performs many operations useful in manufactures and the arts, and even the cow is often obliged to work like an ox.

Nor is the fattening of animals elsewhere as here left to chance; but is regulated by rules founded upon fixed principles and confirmed by long experience. But to understand all these important matters requires study, and the direction of proper teachers, who have been long accustomed to the details.

Under the head of "Commercial jurisprudence as regards the raising and using domestic animals," an immense deal of useful information can be disseminated. By means of this information, the owners of this kind of property are enabled to profit, to the

utmost, of all their component parts;—their flesh, their hides, the offals of their hides, their tallow, their hair or wool, their brains, their horns, their teeth, their hoofs, their entrails, their blood and bones may all be turned to good account; and those only who are apprized of the different purposes in economy and the arts, to which each of these can be best applied, can be said to understand perfectly the value of their possessions, or to know how to repay themselves for the labor and risk of rearing them. But all these are matters of scientific art which require to be studied, and which are taught in the Colleges in question. All perishable commodities, (and few deserve the epithet better than *cattle*,) must necessarily be high priced, and hence the owner should be enabled to make an adequate profit.

The study of the *outward forms* of animals enables us to determine accurately upon their actual and comparative strength and speed, and teaches how to make a proper choice in the selection of those individuals destined to propagate their species. A matter which is of the greatest magnitude in a young country like the United States. This study also enables us in the purchase of animals, to detect their patent or latent defects, and secures us against the numerous impositions practised by professed jockies.

“Though in his whole nature and character (says a celebrated English author,) there is not, I believe, an honest animal in the world than a horse, yet there must be something assuredly in a habitual intercourse with him, which is very detrimental to honesty in others; for certainly—and I believe in all ages it has been so—there cannot be conceived a race of more arrant cheats and swindlers than the whole set of jockies, grooms and horse dealers.”*

A great many of the expedients resorted to by a certain class of persons in England to practise successfully frauds upon the unwary, are well depicted in a little work there published a few years ago, entitled “The adventures of a gentleman in search of a horse.” It would also appear from the same volume, that in England, as they do here, great difficulties exist in determining what amounts to *unsoundness*. “In a horse dealer’s estimation (says the author) unsoundness does not and cannot exist—in a farrier’s judgment, every horse in creation is unsound, unless the seller is his customer. (p. 34.) A lawyer will tell you, that every horse is sound that is not diseased, or menaced with disease, to a degree that incapacitates him for fair and serviceable exertion in that labor for which he is sold. A dealer or his ostler, will vouch for the soundness of every animal that can place a foot before the other, or manage to stand upon all four.” (p. 127.) Between these conflicting authorities, to whom are

you to appeal? To the Surgeons of the Veterinary School, who alone are capable of deciding.

I have known law cases here, turning upon the soundness or unsoundness of a horse, to occupy days and even weeks, during which time numerous witnesses on either side, mutually contradicting each other, have been examined; nor did the evil arise from the perjury of the witnesses so much as their want of skill and judgment. Any one of these cases might have been settled, —justly settled, in a few minutes by a Veterinarian. Is not this an unfortunate state of society, so far as regards its peace and harmony, where the Veterinary Art is so little understood, and where therefore Juries and Courts must necessarily rely upon the vague and unsatisfactory evidence of ignorant farriers or prejudiced ostlers?

That they are ignorant and prejudiced will further appear from a remark of the same writer, and which I am sure many of my readers know to be just, viz. “that (if these people are to be believed) no horse is ever ill *before* he is transferred by sale!—“the *first* appearance of every disorder with which Veterinarians are familiar, is the second or third day *after* the animal is comfortably housed in a new stable.”

Of still greater importance, if possible, is the study of the *internal structure* of domestic animals,—their anatomy,—their comparative anatomy are taught in the Veterinary Schools, as the basis of Veterinary Surgery, and forms one of the most delightful as it is one of the most useful studies.

Next in point of rank and importance, is the raising, curing, and preserving all the various foods used in the sustenance of the different domestic animals. This knowledge is important, not only as it regards the preservation of private property, but as it is connected with considerations of political economy. Many foods used for domestic animals in Europe, are not at all cultivated in the United States; others are badly attended to, and according to the methods of curing some crops, and of feeding cattle in some parts of our country, a large proportion is wasted. Upon all these points there is room for great improvement; in many places in the old world these things have been reduced to systems, and by the introduction of the proposed School we may be enabled to profit by their long experience.

By a strict attention to the food of domestic animals and to cleanliness, they may, in a considerable degree, be preserved from diseases, and consequently from bodily suffering, and this attention it is our duty to bestow. In their domesticated state, they are not so hardy as when in a state of nature, and most of their diseases spring from a want of those precautions required by their

artificial character of life.* From these ills we are bound by the laws of God and man to preserve them as far as in our power lies. But should they be overtaken by disease, the next item of instruction of the proposed school, conveys to us a knowledge of the medicines which are used, either to alleviate their sufferings, or effectuate their cures. When these are botanical, the pupil is instructed how to cultivate them, and when they are mineralogical, where to search for them, how to collect them, and how to purify them: and in either case the mixing, preparing and administering them, are objects of this scientific art. Indeed the method of administering medicines to domestic animals forms a distinct and important branch of study, and of the same character is the performance of all surgical operations. By these means the lives of many animals are saved and their usefulness continued, and the owners of others, upon whom their prolonged existence would only be a charge, have the pleasure to contemplate them restored to health, sources of profit and satisfaction.

On the score of preserving them from contagion and infection, it may not be amiss to add that the community may be more particularly interested than at first appears, since it has been ascertained that the glanders, a disease which generally proves fatal to the horse, can be communicated to the human species. This was a point long disputed by pathologists, but which is now set at rest by a paper from the pen of Dr. Elliotson, the President of the British Medical and Chirurgical Society, read 12th March, 1833, in which he narrates the case of William Johnson, a patient in St. Thomas' Hospital, who caught the disease from a horse, while acting as his groom, and who died after seventeen days suffering of great bodily pain. It has long since been known that man owes the small pox to the camel, and the cow pox to the cow.

But in the present state of the Veterinary art in this country, the most humane owner of a horse is unable to procure him medical aid.

A friend of mine, some years since, entertained an apprehension that a very valuable stud had something the matter with his eyes. He sent him to a neighboring farrier for examination, but with strict injunctions to do nothing till he came. The master of the horse was detained longer than he expected, and when he arrived at the shop of the horse doctor, he was informed that an *operation had been performed*. In order to understand its nature, we must premise that in addition to the upper and lower lids of the eye, which the horse possesses in common with man, the latter has a nictitating† membrane, arising from the internal angle of the eye; with this, which forms a transparent veil, he

* Adventures of a Gentleman in search of a Horse—p. 135.

† Winking.

can cover the pupil in whole or in part. This additional covering was intended, no doubt, by nature, to further defend the eye from injury, when the animal is seeking his food. By passing it over the ball, which the animal can do at pleasure, the dust, which would otherwise accumulate and injure his vision, is brushed away. My friend was horror struck when he found that the ignorant brute to whom he had sent his horse, had cut this membrane out of both his eyes!

Lastly, certain domestic animals require to be *shod*, and the unskilful performance of this operation has been a subject of general and just complaint in almost every part of the United States. Is it not owing entirely to the want of knowledge upon the subject, and would not the Veterinary School work a complete revolution in this particular also? The foot of the horse is enclosed in a horny case, called the *hoof*. The part where the hoof appears to unite with the skin at the top, or more properly speaking, at the root, is called the *coronet*. The crust of the hoof extends towards the heel and there curves abruptly, inwards. The ends are called the *bars*. These latter are not always perceptible, for from a mistaken and mischievous policy of the farrier, whose ambition is to give the foot an open appearance, at the expense of safety and soundness, they are usually cut away in paring the foot for the shoe; and this they call *putting the foot in order*.*

The *frog* is an elastic horny substance between the bars, occupying about a fourth part of the foot, and in shape like the letter Y inverted. It is also the practice to reduce or pare away the frog. To do this, so as to preserve it from the first contact with the ground, is perhaps judicious; but farriers go much further, and thus deprive the animal of the entire use of this part of his foot, which was evidently designed by nature, by its elasticity, to break the jar of the descending foot.†

There are three Veterinary Colleges in France,‡ which are established respectively at Alfort, (near Paris,) at Lyons, and at Toulouse. The one at Lyons lays claim to the greatest antiquity, having been founded in 1763, by Bourgelat. The one at Alfort was erected in 1766, by the same illustrious nobleman, who enjoyed during the whole of his life the situation of director to these establishments, at the same time that he was a professor at the school of Lyons. He also wrote and published several works on the Veterinary Art, one in particular on “the Anatomy of the

* See Adventures of a Gentleman in search of a Horse.

† See Adventures of a Gentleman in search of a Horse.

‡ For much valuable information in relation to the French Veterinary Schools, I am indebted to the amiable and venerable Professor Mons. Desmaret, for whose politeness and attention bestowed when I paid a very interesting visit to Alfort in the summer of 1837, I tender my sincere acknowledgment.

Horse," which is still held in high estimation, although it may be deficient in the improvements to which the art has since attained.

The school of Toulouse was opened upon the restoration of the Bourbons.

The students of Alfort belong principally to the departments of the *north* of France; those of the *south* are divided between the school of Lyons and that of Toulouse. Nevertheless those students who pay their board are at liberty to make choice of the schools.

The school of Alfort has as many scholars as both the others. The number at present is nearly three hundred at Alfort, while at neither Lyons nor Toulouse, are there more than one hundred and fifty.

The object of instituting the school at Toulouse was to form a Veterinary applicable *PRINCIPALLY to the treatment of* HORNED CATTLE,—oxen and sheep; but the study of the diseases of the horse is there made as in the other colleges. In the southern departments of France, oxen are more generally employed in the labors of the field.

The means of instruction are greater at Alfort than in either of the other schools. The corps of instruction is *there* more numerous,—the buildings are larger, and the grounds more extensive than at either Lyons or Toulouse. At Alfort, is to be found an agricultural enclosure, upon a scale large enough to instruct the students, practically, how to cultivate all the plants employed in the nourishment of domestic animals, as well as all those used as their medicines.

All these schools belong to the department of "the Minister who has the direction of Commerce and of the Public Works." He employs a chief clerk, whose occupations, exclusively, are the affairs of the directors, professors, and other functionaries of the Veterinary schools, and whatever else concerns the three establishments. All the schools are also subject to the *visitation* of "the inspector general of appointments," an officer of the French Government, who has a salary of 8000 francs per annum, besides being allowed his expenses every time he pays a visit to the schools. This dignitary presides, alternately, at the establishments, over the annual examination of the pupils; which takes place in the month of August. He also presides over a body, called "the Jury," whose duty it is to make choice of professors and chiefs of the establishment, (*chef de service*,) when those places become vacant. Formerly his duties were much more extensive.

Each school has a *Director*, who is ordinarily chosen from among the professors, and who *ought* to be a Veterinarian; but

it seems that this rule has exceptions, for the present director of the school of Lyons was not.

The professors ought to be Veterinarians, or at least to have received diplomas.

The College at Alfort is composed of the following corps of instruction:—

I. A professor of Zootomy or Veterinary Anatomy,* and of general Anatomy, together with the knowledge of the exterior forms of domestic animals. It is a part of his duty to point out the beauties and defects of horses, and to teach the method of telling their ages.

II. A professor of Natural History, as applicable to the Veterinary Art.—Zoology† and comparative Anatomy—Vegetable Physics.‡ These sciences are restricted to that knowledge which is susceptible of being applied to the Veterinary Art; for example among the plants those are selected for dissection and example, which are used as nourishment or medicine for the domestic animals.

But *all* plants whose *seeds* are used as *food* are deemed Veterinary.

III. A professor of Physics§—of Chemistry and of Pharmacology. This professor also reduces the several sciences he teaches to the principal object of instruction; not *entirely* neglecting, however, those natural phenomena, which are not at all, or but little connected with the Veterinary Art.

IV. A professor of Pathology,|| whose duty it is to make known the diseases of brute animals, and to point out the best means of effecting their cures.

This professor has also charge of the *police health* of the establishment.

V. A professor of Veterinary Surgery,¶ and of Surgery in general. This professor, besides delivering theoretical lessons, is obliged to perform, under the eyes of the students, all kinds

* That part of Zoology which teaches us to dissect an animal, is called "Anatomy." When applied to brute animals it is sometimes called "Zootomy;" and when it points out the relations between the structures of different animals, it is called "Comparative Anatomy."

† Zoology treats of animals generally, not being confined to a description of their external forms, but embracing all the known phenomena of life and animal motion, together with their wonderful instincts and habits.

‡ By "Vegetable Physics," is meant "Botany."

§ "Physics" is synonymous with "Natural Philosophy."

|| "Pathology" is the science of diseases and their cures. "Medicine" is the act of healing or of alleviating them.

¶ "Surgery" is that branch of the healing art which cures or prevents diseases, by the application of the *hand*, with or without instruments.

of surgical operations required to be performed upon domestic animals.

He is also obliged to give lessons in Farriery, and in commercial jurisprudence as regards the Veterinary Art.

VI. The Director is, *ex officio*, a professor, and gives lessons in the art of breaking and educating domestic animals. He also has the charge of the study of the *breeds* of animals, and points out to the students where the crossing of breeds is attended with advantage, according to the different uses to which the animals are to be applied.

The *Director-professor* receives a salary of 6000 francs per annum.

The professor of Anatomy has the title of "*adjunct professor*," and receives a salary of 3400 francs per annum.

The other four professors bear the following titles, viz:—1st. of Chemistry. 2d. of Natural History. 3d. of Pathology, and 4th of Surgery—and each receives 4000 francs per annum.

To assist the professors, each has an *assistant* ("*chef de service*") with salaries, varying from 2400 francs to 1800 francs per annum. The duties of these assistants are, to repeat the lessons,—to repeat the experiments and operations more at leisure,—and to examine the students. One of them has the care of the preparations of Pharmacy.

There is a fine gallery at Alfort, containing a large collection of anatomical preparations, beautifully arranged, so that the students can examine each part separately or the whole animal parts connected. Here also may be seen the skeletons of most of the domestic animals—deformed and injured bones—jaws of horses, with the teeth exhibiting their state at every age,—calcareous and silicious secretions extracted from the stomachs and intestines of animals, and in fact every thing that can shed the least light upon the principal subject of study of the institution.

This gallery is under the direction of the professor of Anatomy and his "*chef de service*," who also have the care of the hall of dissection.

The botanical garden is under the care of the professor of Botany, and his "*chef de service*," or assistant who has a salary of 900 francs per annum.

The garden contains upwards of 800 species of plants, scientifically arranged.

The professor of Physics and Chemistry has the direction of the Museum of Physics, and of the Laboratories of Chemistry and Pharmacy.

To the professor of Pathology and Surgery, belongs the superintendance of the Hospitals or Infirmaries, where the sick animals are treated. The horses, horned cattle, dogs, &c. are all

kept in separate places. In order that the students may always have subjects for instruction, sick animals are received into the Infirmary at very low prices. A sick horse costs the owner but $2\frac{5}{100}$ francs per diem; and a sick dog only $\frac{6}{100}$ of a franc per day.

This professor has also the direction, and his "chef de service" has the care of all the furniture and effects belonging to the Hospitals.

There is a foreman or superintendent belonging to the Forgeries, (Marèshal) who has a salary of 1200 francs per annum.—His duty is to attend to the forges—to give instruction to the students in farriery. For this purpose the pupils are assembled, by sections. There are eight furnaces with each a bellows, so that sixteen students can work at the same time. These sixteen are furnished, and successively replaced at intervals, according to their respective numbers. In the shed belonging to the Forgery is a bench several hundred feet long, to which the feet of dead horses are fastened; upon these the students practice the art of shoeing in the first instance.

There is also a room containing specimens of upwards of fifty different kinds of shoes, invented for horses and oxen.

The establishment is provided with two amphitheatres, one very large, for the delivery of lectures, and a smaller one for the different lessons in physics, chemistry, &c. &c.

For each day, certain students are detailed for particular studies, viz.—one set for anatomy, another for forgery, and a third for pharmacy, and hospital duty, &c. and two students are daily detailed to preside over the kitchen, and to attend to the receipt of the food.

The duration of the studies is four years.

Note.—One of the professors informed me that in practice four years had been found generally to be too long.

Their studies are as follows:

1st. year. Osteology,*—Myology,†—Physics,‡—the exterior of animals—Veterinary Vegetable Physics,§—and Botany in general.

2d. year. Splanchnology,||—general Anatomy—Chemistry—Specific or Veterinary Botany—the knowledge of species, breeds and genders of animals—Pharmacology.¶

* "Osteology," is that branch of Anatomy which treats of the bones.

† "Myology," is that part of Anatomy which treats of the muscles.

‡ "Physics," is synonymous with "Natural Philosophy."

§ By "Vegetable Physics," is meant "Botany."

|| "Splanchnology," is that branch of Anatomy which treats of the Viscera, including not only the Viscera of the abdomen, but all the organs contained in the other cavities of the body, as the brain, lungs, &c.

¶ "Pharmacology," is the knowledge of drugs and medicines.

3d. year. Animal and comparative Physiology*---the first part of Pathology† and Surgery.

4th. year. Commercial jurisprudence as regards the Veterinary Art,‡ and police health; the second parts of Pathology and Surgery, and the breaking and education of domestic animals.

Note.—The students of the third and fourth years attend together to the lessons in Pathology and Surgery,—in commercial jurisprudence,—in the breaking and education of animals, and in police health.

The students of the third and fourth years are also exercised twice a week, in the spring, in the practice of surgical operations of living animals.

There are two general examinations that take place each year, for the purpose of classifying the students *according to merit*. The first of these is in the month of March, and the other in the month of August. The second is followed by the distribution of prizes. Each year's study has attached to it, a first and second prize.

The students of the fourth year, who are found to be capable, receive a *diploma* of Veterinary.

If a student is found deficient in any year's study, he is obliged to renew the study of that year. If, at the end of a second year, he is still found deficient, he is sent away from the school.

Such of the students as do not waste their time, receive their diplomas in four years; those on the contrary, who are idle, may be detained eight years, and even then not be competent Veterinarian.

Books of account of the establishment are kept, in which are registered all the receipts and expenses of every denomination. Abstracts of these are, semi-annually, rendered to the Minister. The Treasurer of the institution, who keeps these books, receives a salary of 4000 francs per annum.

There is also a superintendent in chief, who receives 2000 francs per annum, and two sub-superintendents, who each receive 1900 francs per annum.

The library contains three or four thousand volumes. They are principally works of Veterinary—of Agriculture—and Natural History.

* "Physiology," in its most extensive sense, is defined to be "the doctrine of the constitution of the works of nature." "Animal and comparative Physiology" is synonymous with "Zoology."

† "Pathology," is the science of diseases, and of their cures.

‡ "Commercial Jurisprudence as regards the Veterinary Art," has been explained—(p. 7.)

The librarian, who is obliged to give lessons in grammar, receives 2000 francs per annum.

The secretary of the Director receives 1200 francs per annum.

A respectable physician, who is obliged to visit the institution at least once every day, receives 1200 francs per annum.

There is an infirmary for such of the students as fall sick, and out-door nurses are allowed. These are generally the Sisters of Charity.

Add to these, a competent number of persons, to take care of the domestic animals—gardeners, cooks, and waiters; and the “corps d’ instruction” of the establishment is complete.

The schools of Lyons and Toulouse, according to an ordinance, are each provided with a director professor, three professors, two “chefs de service” and a register.

They have neither cabinet of preparations, nor botanical garden, nor physical museum.

The students of all the schools are under the direction of thirty-nine rules or ordinances, which are strictly enforced by the functionaries.

The students of the establishments are received into it, in different ways.

1st. By their relations paying their *entire* expenses.

2d. By paying half their expenses, the other half being paid by the government, under the direction of the Minister of Commerce; these are called “Royal half Pursers.”

3d. A certain number of either *half* or *whole* pursers are voted for, annually, by the general council of the several departments. This class is called the “Department Pursers.”

4th. Certain learned Societies pay for a certain number of whole or half pursers, for instance “the Royal Society,” “The Royal and Central Society of Agriculture.”

5th. There are also students, *all* of whose expenses are paid by the Minister of War. They are the sons of military men. These students are subjected to particular conditions. They contract to serve for eight years; the first four in the school, the remaining four years as Veterinarians in the different regiments of cavalry.

If they do not obtain their diplomas in four years, they are obliged to serve the other four as common soldiers, and if required, to repay the expenses uselessly expended in endeavoring to teach them.

No one can be admitted without the permission of “the Minister of Commerce and of the Public Works.” That permission is given *generally* to those students only who pay their board and for their tuition.

To be admitted, the applicant must be at least sixteen, and not over twenty-five years of age—must write a legible hand—must possess such a knowledge of the French language, by principle and practice, as will enable him to write correctly, from dictation;—to be able to forge, at two heats, a shoe for a horse or ox. Those who are twenty years of age, must moreover show, that they have complied with the laws relating to the recruiting service. The documents necessary to accompany their request to be admitted are,—a certificate of birth,—a certificate that they have had the small pox, or have been vaccinated,—and a certificate of good character.

Students may be introduced either directly by their relations, or through the prefects of the departments; but the applications must be made before the first of September at furthest. The time of opening the preparatory examination is on the first of October.

There are at the schools of Alfort, Lyons and Toulouse, eighty-six pursers, or gratuitous students, which each department has an equal right to nominate, subject to the approbation of the Minister; and thirty-four are at the direct disposal of the Minister. They are all divided into “half pursers,” and the situations are given to the students who have furnished proof of good conduct,—of zeal and of success in their studies. For this purpose, the notes of the half yearly examination of students are always consulted by the Minister, who also takes into consideration the pecuniary situation of their families. Thus a student who commences his studies by paying a *full* board, may after six months study, obtain a “half purse;” and the next year, if he continue to conduct himself well, may obtain a “full purse.”

The Minister keeps forty students at this school, whose places are entirely gratuitous. In making the selection, the preferences given are as follows:—

- 1st. To the sons of Military Veterinarians.
- 2d. To the sons of sub-officers of Cavalry.
- 3d. To the sons of Troopers admitted in the regiment of Cavalry.

Applications for these situations must be made to the Minister of War.

The English have a Veterinary College at Camden Town, city of London. It was established in 1791, under the auspices of persons of distinguished rank, and is managed by a President, ten Vice Presidents, twenty-four Directors, a Professor, and a Treasurer.

The buildings are extensive, and admirably adapted to the various purposes to which they are applied. The stables are well arranged, well ventilated, the ceilings lofty, the stalls wide, and there are large spaces between the stables and the opposite walls.

It has an amphitheatre for the delivery of lectures, a dissecting hall, and a gallery of anatomical preparations.

For an annual subscription to this College of three guineas, any one can be assured of having a sick or disabled horse treated with all the skill of which the present state of the Veterinary Art admits. And he is equally certain that disease will not be prolonged, to increase the length of the farrier's bill.*

For one guinea, you may obtain a written opinion from the Professor, as to the soundness or unsoundness of a horse.† It is stated in Boardman's Dictionary of the Veterinary Art, that the public are indebted for this truly national foundation, to the humanity, discernment, and patriotic exertions of a country Agricultural Society, that of Odiham in Hampshire: and that the first Professor was a Frenchman, of the name of St. Bel, who had previously distinguished himself as a Veterinary Anatomist and writer, by dissecting and describing different parts of the famous race horse Eclipse, so much known and admired for his swiftness.

In 1792 a Veterinary School was established at Berlin, in Prussia.

To teach the Veterinary Art with success in the United States, it would be necessary to have—

1st. An Agricultural enclosure of sufficient extent to cultivate upon a scale large enough for instruction, specimens of all the plants used in the nourishment of domestic animals; and also ground enough to keep the domestic animals, upon whose breeds or crossings of breeds, experiments are being performed.

2d. A botanical garden, extensive enough to cultivate the plants used as medicines for the domestic animals.

3d. College buildings, including an amphitheatre for the delivery of lectures,—school rooms—a gallery or museum room,—a library room,—a dissecting room,—a forgery,—hospitals for the sick animals under treatment,—stabling or sheds for those under experiment,—dormitories, a dining room, hospital rooms, and a kitchen for students, and apartments for the officers.

4th. The officers required would be:

One Director Professor.

Four Professors, viz.

1 of Anatomy.

2. of Botany.

3. Chemistry and Pharmacy.

4. Pathology, Surgery and Farriery.

Four Teachers, one Farrier, one Librarian and attendants.

* Adventures of a Gentleman in search of a Horse.

† Ibid.

5th. A library—a museum of anatomical preparations—a collection of minerals, and a herbarium.

Experience has proved that four years is a longer term of study than is necessary, even in France, where the students are admitted at sixteen years of age, and with no other education than being able to read and write; American students of sixteen years would be much more advanced in education.

A glance at the following enumeration of the expenses of the school at Alfort, will also convince us that much money is there uselessly expended, and yet it will be seen that the school is a source of profit to the French Government.

The ground and buildings at Alfort cost the Government about 100,000 francs.

	Francs.
The annual interest on 100,000 francs at 5 per cent.	5,000
One third of the salary of the Clerk of the Minister of the Interior, his duties extending to the three Schools,	1,666
One third of the salary of the Inspector General,	1,266
The salary of the Director Professor,	6,000
Do. of his Secretaries,	1,200
Do. of the Professor of Anatomy,	3,400
Do. of four other Professors at 4000 francs each,	16,000
Do. of five Chefs de Service,	10,200
Do. of a Botanical Gardener,	900
Do. of the superintendent of the Forgeries,	1,200
Do. of the Treasurer of the Institution,	4,000
Do. of one superintendent and his two assistants,	5,800
Do. of the Librarian,	2,000
Do. of the Physician of the Institution,	1,200
Do. of the Gardeners, Cooks, Waiters, &c.	10,000
Provisions for three hundred students for one year, at ten sous per pay,	54,000
	<u>123,832</u>

The School yields as follows, viz:—

	Francs.
300 students pay for their boarding per annum,	108,000
“ “ “ “ tuition “	60,000
The profits of the Infirmary of Animals per annum,	30,000
	<u>198,000</u>

To this might be added the profits on the Animals reared.

The expenses of erecting a Veterinary College in the United States, may be estimated as follows:—

The land, say 125 acres of land, at \$100 per acre,	\$12,500
The buildings,	30,000
Library and apparatus,	5,000
	<u>\$47,500</u>

I would propose to raise by subscription \$50,000, in shares of \$50 each, to be loaned the first three years without interest.

To induce subscribers, I would allow any one who took twenty shares, to send one pupil to the school; the interest on his shares compensating for the board and tuition. To any one who would subscribe for ten shares, I would allow to send one pupil upon paying one-half of his board and tuition. To any one who would take five shares, I would allow the liberty of sending to the college infirmary for medical or surgical treatment. one diseased or disabled horse annually; and any one who would subscribe for one share, should be entitled, annually, to have a horse examined by a Professor, and to receive a certificate of his soundness or unsoundness.

In the distribution of the animals whose breeds are improved, I would propose that a preference should always be given to subscribers to the College.

Such is the Institution I would propose. It is natural that I should prefer seeing it located in my native State, and to her I first offer it. There are in Pennsylvania upwards of fifty cities and counties. If in each, individuals could be found to subscribe for only twenty shares, the College would be endowed, and the benefits of the institution be spread all over the State. If ten from each county only could be obtained, is it not probable that the Legislature would assist? It is not well to be too sanguine, but it appears to me, that the objects of the Veterinary College are sufficiently *national* and *important* to induce Congress to interfere. The three Veterinary Colleges in France, are, as before said, Governmental Institutions, and the British Veterinary School has shared the bounty of Parliament. It is stated in Rees' Cyclopædia, that important savings have resulted to the English nation, from the appointment of Veterinary Surgeons, (graduates of this School) to the different regiments of British Cavalry.*

I am persuaded that AN INSURANCE UPON THE LIVES OF HORSES would be found very useful in the United States, and an Institution of that character might be connected with a Veterinary College with peculiar advantages. When it was proposed to effect insurance upon a horse, who would be so capable to judge of his age, health, &c. as those connected with the College? It might be made a part of the condition of the Insurance, that the animal, if taken sick or injured by accident, should be sent to the College

* While this little work was printing, I observed in an English newspaper, a letter from Sir Francis Burdett to Lord Melbourne, on the subject of the Royal Stud, from which I extract the following, viz.

"The HORSE IS A NOBLE ANIMAL, and to encourage his race, and to bring all his admirable powers and qualifications to perfection, is an object of primary NATIONAL CONCERN, and has by all Nations, warlike or otherwise, been so considered—and never more so than at the present moment."

Infirmary. There he would be treated with the greatest skill and kindness, and if any fraud had been committed by the insurer, those connected with the College would in all probability detect it. On the other hand, the honest owners of valuable animals, which, being insured, became diseased, could desire no better asylum than the Infirmary of the Institution.

I have endeavored to show, and I trust have shown, that the School would be a profitable concern; but should I be, in this, mistaken, the life insurance might contribute its aid; for it is confidently believed that such an institution, well conducted, could not fail to be popular and profitable in the United States. It is well known that in almost every commercial city of the Union, where there exists companies who insure against losses by fire, and at sea, as well as upon the lives of men, that frequent applications have been made to insure the lives of horses; but to this their charters do not extend. In Paris they insure the lives of horses, but the *amount* insured is very limited, nevertheless the companies who effect it, are esteemed the most profitable in that vast metropolis.

It must be recollected, that a horse is *perishable* property, and therefore high priced; few can afford to incur the risque of a total loss, and *many* would be glad to insure their lives.—The horse in his educated state is not a hardy or long lived animal. Some live to twenty-five, but by far, the greater majority are worn out at thirteen.

Should it be thought expedient to connect the two institutions, the capital must, of course, be increased. The insurance part might be under the direction of a President and Directors chosen by the stockholders; and owners of stock in other States might be constituted agents to receive and forward applications to insure.

If the proposed Institution had in view the *single* object of improving the breeds of domestic animals in the United States, might I not appeal with confidence to the enlightened and patriotic Agriculturist of the Union to aid in its erection and support. And to them, in conclusion, I do appeal—earnestly begging them to bear in mind, that they have it now in their power to assemble together a band of learned and experienced men—whose education and habits will fit them for the station,—whose occupations will necessarily connect them with persons of the highest intellectual standing in Foreign countries—and who will be willing to devote their talents and energies to this important subject.

*from
The Author.*

Feb. 13, 1843.

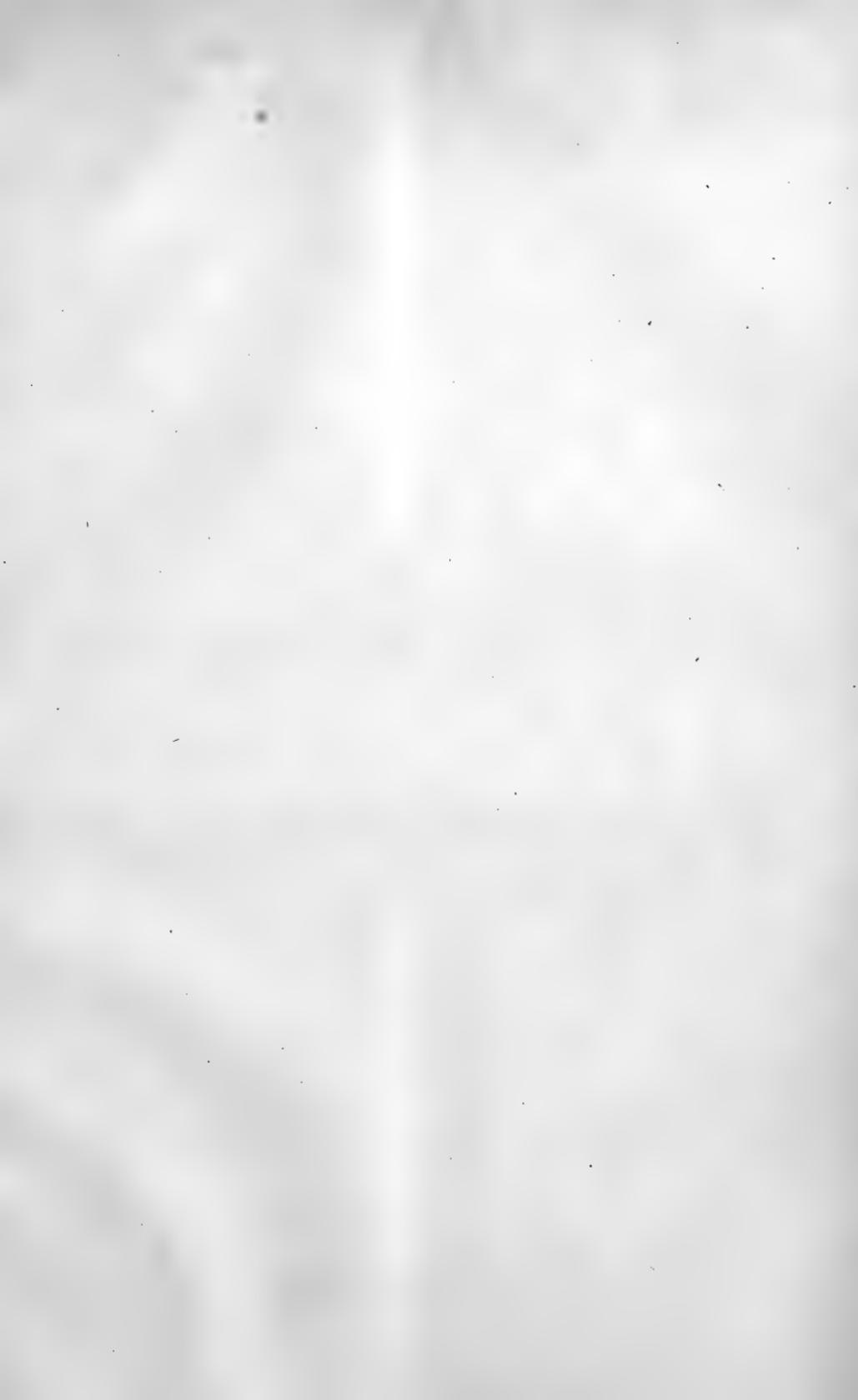
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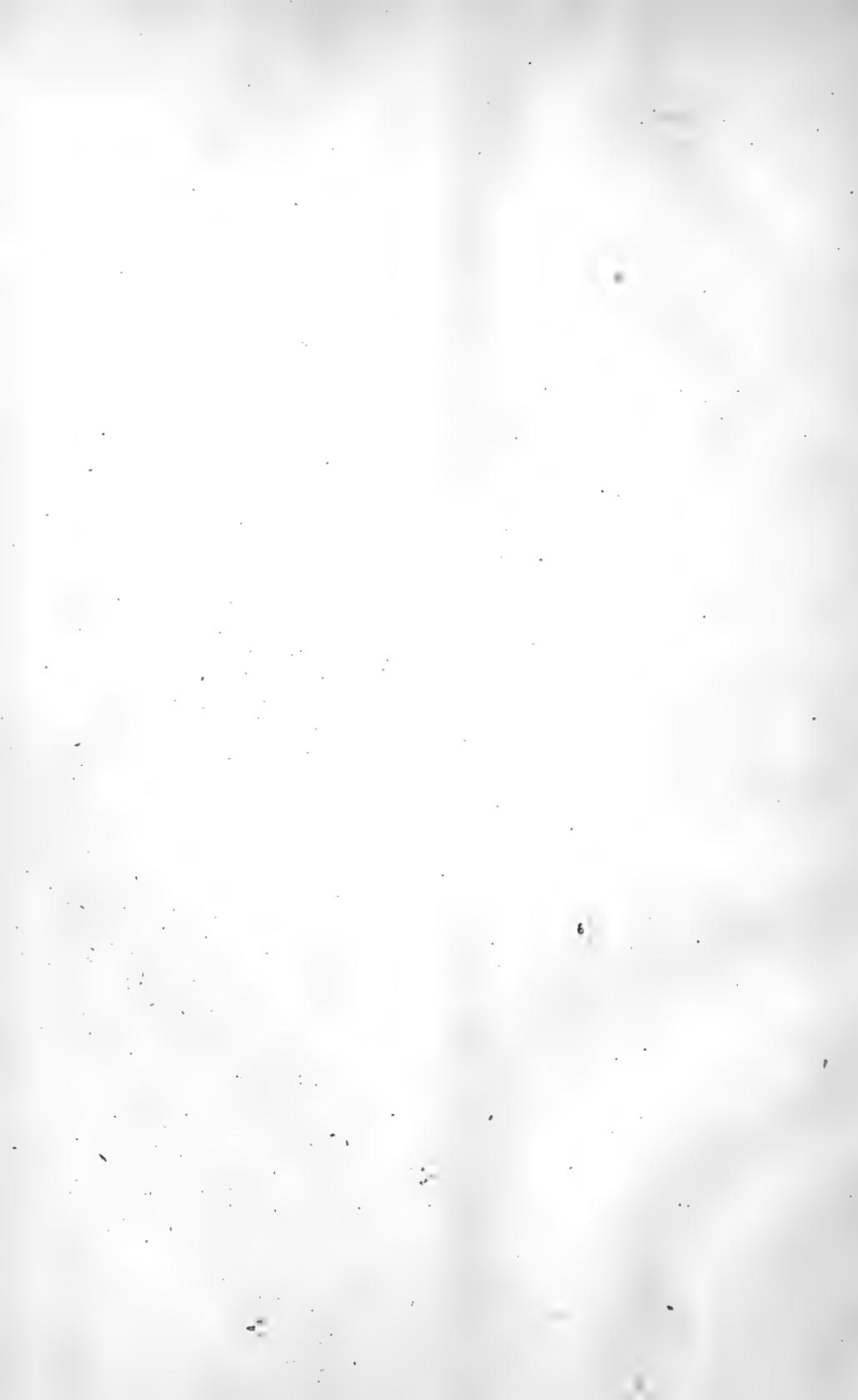
ON THE

VETERINARY ART,

BY PETER A. BROWNE, L.L.D.

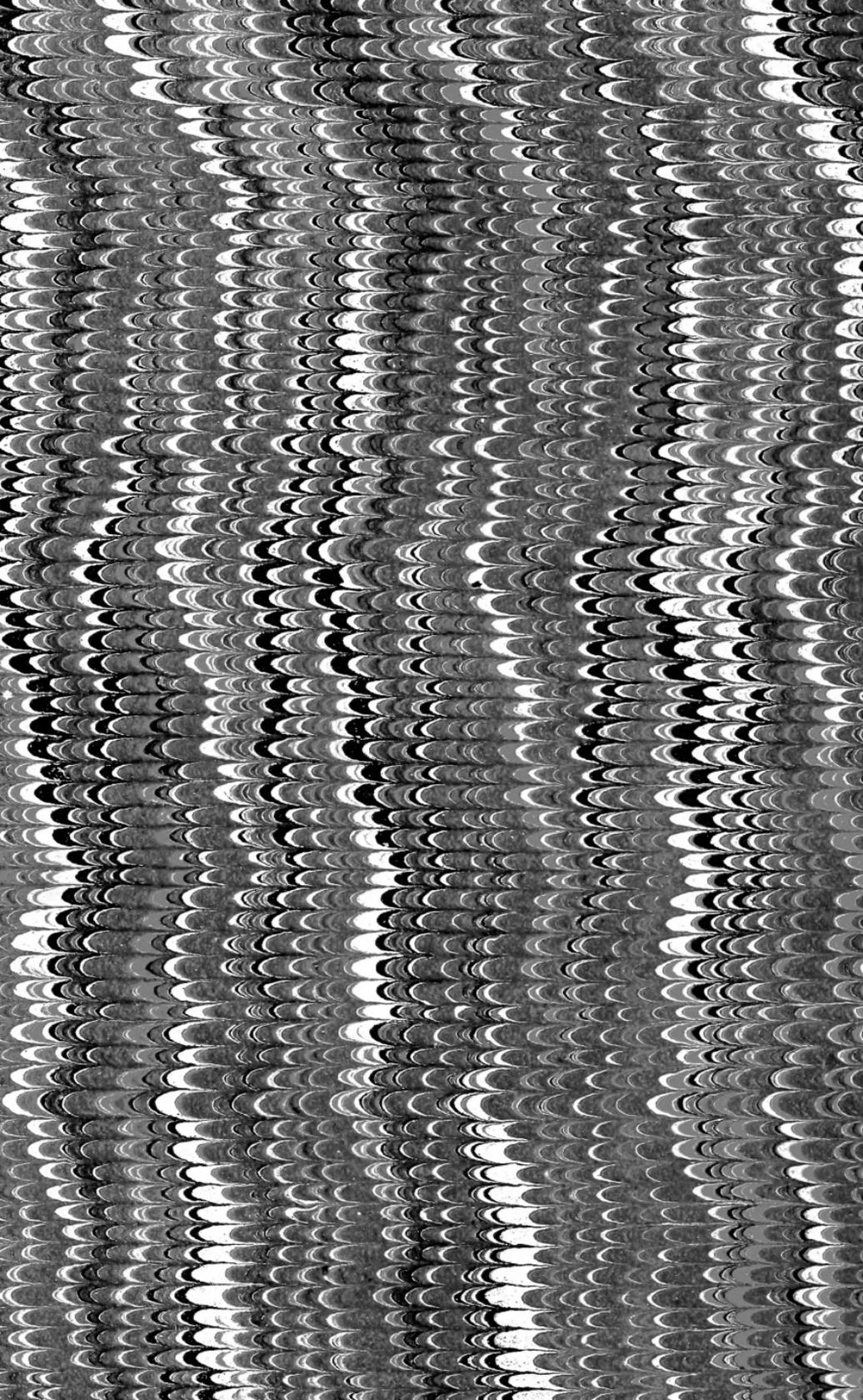


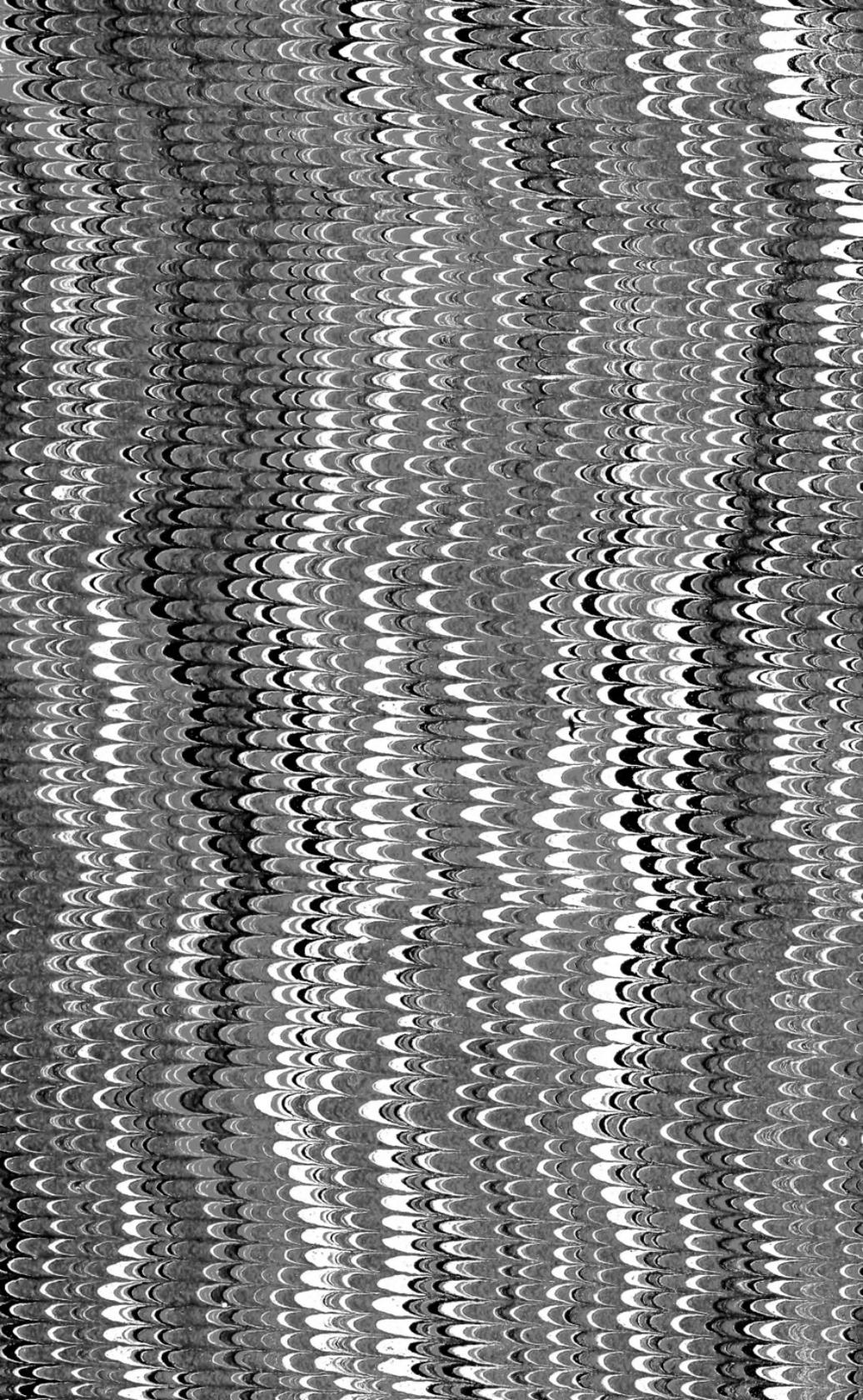












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