

LETTER

FROM

A COMMITTEE OF CITIZENS

TO THE

PENNSYLVANIA RAILROAD COMPANY

ON THE PROPOSED

SCHUYLKILL DROVE-YARD AND ABATTOIR.

Box 10

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1874.

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PENNSYLVANIA RAILROAD COMPANY

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SCHUYLKILL DROVE-YARD AND ABATTOIR.

PHILADELPHIA, Nov. 16, 1874.

To the President and Directors of the Pennsylvania Railroad Co.

GENTLEMEN: The Committee representing the signers of the remonstrance against the proposed stock-yard and abattoir on the Schuylkill, above Market Street, has, at the invitation of your officers, inspected the site in question and has also visited the similar establishments erected under your auspices near New York. It has given the matter the careful consideration which its importance requires and has sought to obtain all the collateral information on the subject within reach, and it now desires to convey to you respectfully, but earnestly, its deliberate conviction that the carrying out of the project would be a grave injury to our city.

There would seem to be no question that on both economical and sanitary grounds the modern system of large abattoirs, in which as far as practicable all refuse matter is turned to account for manufacturing or agricultural purposes, is far preferable to the small slaughter-houses scattered throughout a city, each one conducted with such care or negligence as may suit the disposition of the owner, and supplied with live stock by driving herds of cattle through crowded streets. The greater facilities afforded by the modern system for a thorough inspection of cattle and meats are further obvious. Yet in removing one nuisance it would be a fatal error to establish another and a greater one.

The unanimous opinion of those members of the Committee

who visited the drove-yard and abattoir at Harsimus Cove near Jersey City, and the hog-killing and fat-rendering establishment on the Hackensack, is that the arrangements and management at both of these places are highly creditable to those who planned and have carried them on. It is true that but little live-stock was on either premises at the time, and the Committee was thus unable to judge of the probable amount of noxious emanations from large numbers of animals, especially hogs, when crowded together under such conditions. It is true, also, that these establishments have been running for only about ten months, and it may well be questioned whether they may not become greatly more offensive with prolonged occupancy, which even the use of carbolic acid and other disinfectants so freely employed by the lessees may not be able to avert. Yet with these allowances, the Committee has much pleasure in stating that, in so far as a visit under the circumstances enables it to judge, in both establishments the unpleasant results inseparable from the business appear to be kept at a minimum, and that, short of the arbitrary regulations, enforced by military surveillance, of the Paris abattoirs, it would be hopeless to expect anything more perfect, in view of the varying character of labor obtainable in our large cities.

The Committee, however, is forced to the conclusion that the conditions of the respective localities and the nature of the establishments are so different, that no fair deductions can be drawn from those near Jersey City, as applicable to Philadelphia, except that such evils as have been entailed by the former would be greatly exaggerated in the latter. The Committee is informed that bitter complaints are made by the citizens of Jersey City of the discomforts caused by them, and that the value of the unimproved property lying in the neighborhood of the one on the Hackensack has been greatly depreciated since its establishment by arresting the spread of population in that direction. That these effects, in a greatly heightened degree, would follow on the creation of a vast drove-yard and abattoir as proposed on the Schuylkill, would seem to be unavoidable on comparing the respective plans and places.

At Harsimus Cove are cattle-yards and an abattoir for oxen and sheep. On the Hackensack there is a hog-killing establishment with fat-rendering works, the offal from Harsimus Cove being transported thither in closed cars on a railroad ele-

vated above the surface from the North River as far as Bergen Hill. In Philadelphia the Committee understands that you propose to establish, on the Schuylkill between Market Street and Fairmount, drove-yards of a capacity ultimately for 7500 oxen, 8000 hogs, and 12,000 sheep—a week's supply—with an abattoir for all classes of animals, while the fat-rendering works are to be placed further down the river, and the offal is to be transported in boats when the river is navigable, and in closed cars when navigation is obstructed by ice. Here at once is evident a difference of great importance. While in both places the fat-rendering is to be carried on at a distance from town, the swine which, on the Hackensack, are likewise kept afar as equally objectionable, are with us to be brought into the centre of the city. No one who has ever come within range of a car load of hogs need be reminded of the foul odors generated by them when crowded together for transportation, and the vast numbers which must frequently accumulate in the pens can scarcely fail to contaminate the atmosphere for long distances.

Harsimus Cove, moreover, which thus is considered too near to population for storing and slaughtering hogs, has very great sanitary advantages over the proposed site on the Schuylkill. It lies to the north of Jersey City, separated by the very extensive property of your road; the whole establishment, cattle-pens and abattoir, are built over the river on piling, with the water flowing freely beneath, to the depth, at the outer extremity, of thirty feet. The tide rushing in from the sea, only about twenty miles away, gives a fair current to wash away all impurities, while the drainage falls directly into a vast body of salt water of considerable depth, and more than a mile in width to the opposite shore. There is thus no risk that the water will ever be so surcharged with filth as to be unable to purify itself by oxidation and diffusion, while the dense population of New York is less likely to be affected by it than would Philadelphia be by such an establishment in Camden. Moreover the southerly winds which prevail in warm weather, when the risk and discomfort are greatest, in New York come fresh from the sea, purifying and invigorating and charged with ozone, in place of being relaxing and debilitating as with us.

Thus the conditions which, at Harsimus Cove, reduce the evils of such an establishment to a minimum, would, on the Schuylkill, make them almost reach a maximum. However great

might be the desire of the managers, both from praiseworthy and economical motives, to gather up all filth and refuse, yet the storage and slaughtering of so many thousands of oxen, sheep, and hogs weekly must necessarily cause not only deleterious effluvia, but large amounts of decomposing animal matter must be daily drained into the Schuylkill. The very efforts which will be made by constant and abundant flushing to keep the pens and slaughter-houses clean, can only result in increasing the pollution of the stream. The river at this point is narrow and shallow, the distance between wharf lines at Arch Street being but 425 feet, and at Race Street but 380, with an average depth at low tide of only about ten feet, and shallows along the western shore. The tide is cut off by Fairmount Dam but a short distance above, and the amount of water, at ordinary stages, discharged over the dam, through the canal, and under the water-works, is not large. In fact, during the hot season, we know by costly experience that the supply is scarcely sufficient to keep the wheels of the water-works running, and to prevent their stoppage the canal has more than once been closed. For a considerable portion of each tide there is scarcely a perceptible current, and thus there exists every condition fitted to intensify the evil. Several competent experts have suggested to the Committee that to obviate the pollution of the river an intercepting sewer ought to be built to take the drainage of the establishment and carry it to a point below the city, but such a plan would entail not only a very large expenditure in construction but also extensive pumping apparatus in consequence of the absence of grade to current and discharge the sewage. Besides this, it must be borne in mind, in looking to the future, that the Schuylkill is the only possible source of drainage for a large and rapidly increasing population; that the time is not far distant when the utmost care will be necessary to prevent its becoming a source of infection from the ordinary and unavoidable sewage, and that, therefore, all preventable sources of contamination should be averted. What its condition may soon become, when not only the water may be saturated with the drainage of your vast cattle-yard and abattoir, but the soft mud at the bottom and the flats below the wharfing, left bare at low tide and exposed to the sun, shall be charged with putrescible animal matter, is not pleasant to contemplate, nor can its importance to the well-being of Philadelphia be easily exaggerated. The wooden wharves themselves, on both sides of the river, would

in time become thoroughly impregnated with such putrescible matter, and your Committee has the authority of Dr. Bell, the distinguished editor of the New York "Sanitarian," after a careful inspection of the ground, for saying that the proposed establishment would eventually render imperative the facing with stone of both banks of the river for a considerable distance above and below the spot. No man in England stands higher as a sanitarian than the Hon. Lyon Playfair, and in his address, but a month ago, to the Social Science Association, at Glasgow, on the subject of Health, he gave especial prominence to the commandment of the ancient Egyptians, "thou shall not pollute rivers," to the neglect of which he attributed wide-spread disease and death, urging "that all municipalities and manufacturers should now be prohibited by heavy penalties from fouling rivers." In this respect the experience of Chicago may well be a warning to us, especially as we cannot have recourse to the expedient there adopted of reversing the current of a river and making Lake Michigan drain into the Mississippi.

In view of the very great disadvantages of the Schuylkill as compared with Harsimus Cove, you must therefore permit us to express our regret that you should propose to add to your establishment here what you have refrained from inflicting upon the vicinity of Jersey City—the storage and slaughter of hogs in large numbers.

The Committee has sought to learn, from the experience of other cities, and from the opinions of experts, whether it was correct or not in the views suggested by its consideration of the subject.

The example of the abattoirs of Paris may at once be set aside, on account of their strict regulations, alluded to above, which could not here be enforced. What these are may be estimated from the single fact that there all cattle when brought in are bathed in a granite bath, twenty by one hundred feet in area, and two feet deep, in which they are carefully scrubbed by attendants. The committee is also informed that the drainage is not allowed to run into the Seine.

In London, the Committee believes that the abattoir is removed from the city to a distance of about ten miles.

In New York, the Board of Health, which is armed with very extensive powers, has recently made an order that all private

slaughtering-houses shall be removed before January 1, 1876. The President of the Board, Prof. C. F. Chandler, whose standing as a man of science is unquestioned, however informs the Committee, "we do not intend to oppose the erection of one or two large abattoirs within the city limits on the water fronts in the upper part of the island, in which case the abattoirs will be within half a mile of the best portions of the city." It should be borne in mind, however, that the drainage into an arm of the sea, with a rapid tidal current like the East River, or a vast body of water such as the North River, is a very different matter from drainage into the Schuylkill. Moreover, Dr. E. H. Janes, the Assistant Sanitary Superintendent of the Board, and a gentleman of great experience in such matters, says, in the "Sanitarian" for Oct. 1874: "In briefly summing up, I would say that the sanitary necessities of a town require its slaughter-houses to be situated remote from its centre or its business portions, and if possible by the water side." The same gentleman, in describing the one at Harsimus Cove, in an official report of June 9, 1874, says, "Situated on an immense pier, which extends from the river shore of the cove to the line of the river shore proper, being a distance of half a mile, it has the advantage of the regular flow and ebb of the tide under the entire establishment, washing away every particle of filth, whether liquid or solid, which may, either accidentally or otherwise, escape into the water. . . . The hog-slaughtering establishment connected with this abattoir is located on the Hackensack River, some three or four miles from Jersey City, so far remote from all human dwellings as not to be a source of offence or annoyance to any one." And that the absence of offence is the result only of the absence of population is intimated by the same gentleman in the "Sanitarian" of the present month, November, 1874, when, speaking of the latter establishment, he says, "We all know that live swine carry with them an odor which is diffusive, persistent, and offensive, and which the parties conducting the abattoir do not pretend to repress. It must also be acknowledged that all machinery is liable to temporary derangements, and when the object of such machinery is to suppress or destroy offensive odors, any defect in its working will be attended with a proportional failure in the accomplishments of its object. For this reason alone, to say nothing of the nuisance connected with live stock, I would not like to be understood as recommending the erection

of an establishment like the one on the Hackensack in a location likely soon to become the centre of a great city. I think one of its chief merits is its remoteness from human dwellings."

In Boston, the State Board of Health, composed of gentlemen of high scientific acquirements and experience, in their report of January, 1870, say: "If anything is settled as to the causes of disease, it is the influence of decomposing organic matter in giving rise to diarrhoeal affections and typhoid fever, in depressing the vitality of children, thus rendering them less capable of resisting disease in every form, and in making all the epidemics more active and virulent." And the President of the Board, Dr. Henry I. Bowditch, well known as one of the highest authorities on such subjects in the United States, in answer to an inquiry from the Committee, says: "In my opinion it would be very injurious to the health, comfort, and convenience of any large and populated district to be near *any* establishment for slaughtering animals, especially if the establishment was to be of such immense proportions as your letter indicates, and so near to dwellings as that was to be placed." It was in accordance with these views that the State Board of Health, in breaking up all the private slaughter-houses in the vicinity of Boston, directed the establishment of a large drove-yard and abattoir at Brighton on the Charles River, several miles distant from the city.

In Chicago, the stock-yards and abattoirs have been the source of endless complaint on the part of the citizens, and of constant litigation. No one is allowed to carry on the slaughtering business without taking out a permit and giving bond, and it is a penal offence to allow blood, offal, or other offensive matter to escape into the Chicago River. Under this unrelaxing pressure the nuisances caused by these concerns have been considerably abated, and partial relief has been gained by reversing the South Branch of the river, and making its current flow into the Michigan and Illinois Canal. It is now contemplated to apply the same remedy to another of the branches, while heavy pumping machinery is being erected to connect the North Branch with the lake. The result of the experience thus gained may be seen in the following answers made by Dr. Rauch, late Sanitary Superintendent of Chicago, and one of the founders of the American Public Health Association, to questions propounded to him in the recent meeting of that body in this city:—

First. Can the disposal and utilization of refuse be made invariably perfect (as a matter of experience) as regards water and air?

A. No. Occasionally atmospheric conditions obtain, especially at night, when it is impossible to conduct, as far as my experience goes, the disposal and utilization of refuse without offence. This is sometimes observed near the establishment, and sometimes remote. Generally speaking, however, under favorable atmospheric conditions, these processes can be carried on without being offensive or injurious to health, provided the scientific appliances for rendering, drying, and the disposition of the gases arising therefrom are strictly and carefully maintained, under vigilant police supervision.

Second. How far may the odor of such an establishment, including cattle-yards, be detected with certainty?

A. The odor of establishments of this character can be detected at varying distances, dependent upon temperature, condition of atmosphere, and wind. Have recognized them in a marked degree at a distance of ten miles. The odor of the cattle-yards under like conditions of atmosphere, temperature, and wind, has been detected at a distance of one mile.

Third. From what is known, can the drainage of an abattoir be safely allowed to enter a fresh-water stream flowing through a town?

A. Not as a general rule. It depends upon the amount of the drainage into, the quantity of water in, and the rapidity of the current of the stream. Under all circumstances it is important that this drainage should enter streams below the limits of a town or city.

Fourth. What effect has been observed upon property values and settlement near an abattoir?

A. As a necessary consequence they will diminish the value of property for residences. People generally keep at respectful distances from such establishments.

The views of the Public Health Association, composed of the most eminent sanitarians of the country, may be gathered from the following resolutions which were unanimously adopted at its recent meeting:—

Resolved, 1. That, for a city properly arranged and conducted abattoirs, subject to municipal regulation, are always preferable to a number of private slaughter-houses.

2. That the best practicable management of large abattoirs, with cattle and hog-yards, cannot be depended upon at all times to prevent their drainage from contaminating water and the atmosphere in its vicinity.

3. Therefore, such establishments should be located as far as practicable from the centres of population, and, if possible, upon tide water.

The Committee has also sought the opinion of Dr. Henry Hartshorne, whose position as Professor of Hygiene in the University of Pennsylvania, and Vice-President of the American Public Health Association, is sufficient assurance of his qualifications to speak decisively on such a subject. His exhaustive analysis of the question cannot well be condensed, and is appended hereto for your consideration. To this may be added that since the Remonstrance was laid before your Board, copies of it have reached the Committee, and are transmitted herewith, signed by the entire medical faculty of the University, and by nearly all the professors of Jefferson Medical College. Indeed, so far as the observation of the Committee extends, the medical profession of the city is substantially a unit in condemning the project.

That your Company formerly entertained the same views is apparent from the fact that, as the Committee is informed, all the building lots which you have sold from the tract of land which you now propose to use in this manner were subjected by you to the following restriction as expressed in the deeds of conveyance: "Under and subject to the restriction and express agreement between the parties hereto that no *slaughter-house*, skin-dressing establishment, hose or engine house, blacksmith's shop, carpenter shop, glue, soap, candle, or starch manufactory, livery stable, or other building for offensive occupation, shall at any time hereafter be erected or used upon any part of the hereby granted premises;" and the Committee would respectfully submit whether, in effecting sales under such conditions, your Company did not enter into an implied obligation, in morals at least, to protect its vendees in so far as its use of the ground reserved for its own occupancy is concerned.

If Philadelphia were so situated as to present in its environs no appropriate site for such an establishment, it might be a question whether the evils of the proposed location in the heart of the city had better be endured or not, but this is not the case. There are many spots, both above and below the city, which are, in a great measure, free from the sanitary disadvantages of the Schuylkill above Market Street, while possessing at the same time abundant facilities for communication by rail and water. Indeed, even in a commercial point of view, the site in question would appear to be one of very doubtful expediency, as the river is subject to sudden and violent freshets. It is but a few years since the water rose to a height of eleven feet above the wharf logs on this very ground, and a repetition of this, which may at any time occur, would entail upon your Company and the lessees very great losses in buildings and live stock, and very great inconvenience to the community from the interruption of a business so essential to the public welfare.

In thus submitting these views for your consideration the Committee is fully assured that nothing has been further from your intention than to inflict any injury upon Philadelphia. It recognizes that your object has been, while providing increased facilities for the enormous and rapidly growing cattle traffic of your road, to also benefit the community by the construction of an establishment which would remove acknowledged existing

evils, and give scope for almost illimitable future expansion. Yet the Committee cannot but hope that on further deliberation you will, without abandoning the project, transfer its site to some place where its advantages may be preserved while its objectionable features will disappear. If not, the Committee feels impelled by a sense of duty to protest, in the most decided manner, against the establishment as now proposed.

Asking of you the favor that your definite conclusion may be communicated to us at your early convenience, in order that the Committee may determine what ulterior action may be necessary, we have the honor to remain

Your obedient servants,

JOHN SELLERS, JR., <i>Chairman.</i>	W. P. JENKS,
WM. HENRY RAWLE,	E. SPENCER MILLER,
EDWIN M. LEWIS,	JAMES L. CLAGHORN,
GEO. CADWALADER,	HENRY C. LEA,
E. H. WILLIAMS,	CHAS. T. PARRY,
EVAN RANDOLPH,	JOHN McLAUGHLIN,
W. S. W. RUSCHENBERGER,	CLARENCE H. CLARK,
HENRY BALDWIN,	CLAYTON MACMICHAEL,

Secretary.

OPINION OF PROFESSOR HENRY HARTSHORNE.

MEMORANDUM.

On the question of the location of an *abattoir*, the following considerations suggest themselves; most conveniently placed in the form of questions and answers:—

Q. Is not one large abattoir, under direction of an organized and responsible corporation, preferable to a number of scattered private slaughter-houses?

A. Other things being the same, yes.

Q. Is the slaughtering of animals not shown to be devoid of unsanitary effects by the usual good health of butchers, as a class?

A. Only robust men, as a rule, choose such a vocation. As, however, it is true, that they commonly maintain ordinary health, this comports with the fact that unsanitary effects are to be apprehended not from the mere slaughtering of animals, or from contact with sound fresh meat, but from the incidental and secondary *results* of the business; *i.e.*, the solid and liquid *refuse*, subject to rapid putrefactive decomposition, which seriously taints both air and water.

Q. May not all such refuse be disposed of, under a vigilant and efficient supervision and administration, so as to prevent all the injury dependent upon it?

A. Conceivably, theoretically, this may be possible; actually, in practice, it is very improbable. Under the greatest official vigilance and fidelity, a certain *minimum* of failure in administration is to be counted upon. And, the larger the scale of operations, the more extended is likely to be the *aggregate result* of such a deficiency.

Q. Will not thorough drainage into the Schuylkill River, below Fairmount dam, afford security from local contamination?

A. No. Water-contamination, especially that of a river not larger than the Schuylkill, and inhabited on both of its banks, is a most serious result. If not used at all for drinking purposes, its emanations may yet deleteriously affect the atmosphere for a considerable distance.

Q. Have not the actual effects of emanations into the air from rivers (as the Thames, etc.) been thought by some observers to have been exaggerated on theoretical grounds?

A. Temporary and partial immunity from the worst of such effects, so far as it has been shown, merely indicates that the unsanitary influence referred to cannot be *measured*; but its *existence* is not at all a matter of doubt.

Q. Is there any *other* objection to an abattoir being within a few hundred yards of a central and well-built portion of the city?

A. Yes; the presence of large numbers, say hundreds or thousands, of living animals, prepared for slaughtering. These, especially hogs, give off an offensive odor (most of all when brought close packed, through long distances, in railroad cars), which is a sufficient indication of unsanitary influence upon the air.

Conclusion: With all appliances and methods of utilization so far known, and with all obtainable vigilance of supervision, the absolute freedom of a large abattoir from the local decomposition of refuse cannot be *relied upon*. Negligent administration of such an establishment would allow this to become an enormous evil.

Drainage from an abattoir into a river in the midst of a city is to be pronounced an abuse, a nuisance, according to all accepted sanitary principles. When to this is added the effect upon the air of the foul odors from immense numbers of animals in drove-yards, the same terms become doubly applicable; no matter what may be the carefulness of the management.

For the sanitary protection of a city, the only principle which it is safe to

recognize is, that all agencies and procedures, subject to allowance or prohibition, whose influence is clearly likely to have an injurious effect upon public health, should be rendered *impossible*; not merely subject to the contingency of good or bad administration.

On these grounds, an abattoir on either side of the Schuylkill River, within a mile or more north or south of Market Street, may be pronounced to be a nuisance; such as ought not to be allowed to exist.

Very respectfully,

H. HARTSHORNE.

