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STEAM CARRIAGES FOR STREETS AND ROADS.



On the first page of our present volume, we presented an illustrated description of Rickett's steam carriage for common roads, which had been exhibited with so much *éclat* before the Queen of England and Prince Albert. Impressed with the idea of the practicability of this steam vehicle, the Earl of Caithness had one constructed for his personal use, after the same model, but with the addition of some minor improvements of his own. This carriage has operated so successfully that it has attracted a large share of public attention, and both the *Mechanics' Magazine* and *The Engineer* have given representations of it in their columns. On one occasion, it made a journey of one hundred and forty miles in two days, over mountain roads, and it ascended the Ord of Caithness, one of the steepest hills in Scotland, where the rise is one thousand feet in five miles and the road sometimes very abrupt in its turnings. All this was done with perfect safety, the Earl of Caithness steering the carriage, with his heroic lady by his side, and the engineer behind simply attending to the fire. The mountaineers were electrified with these performances; they gathered along the mountain paths and cheered the performance of the steam pony, which cantered up and down the declivities with foot as sure as that of their own sagacious Shetland nags. While stopping at the town of Wick, the honest burghers were so delighted with the steam achievements of the earl, that they made him a public banquet, and his good lady made a little speech on the occasion, in which she said: "I am sure that as long as Caithness can boast of a steam carriage for common roads, it may claim to itself what Americans would style 'a go-ahead country.'" That was spoken like a sensible, strong-minded woman, and we venture to assert, upon the strength of it, that this countess is a patron of inventors and a friend to mechanics.

This steam carriage weighs only two tons; it is supported on two large side wheels, with a small pilot wheel in front—a three-wheeled carriage. It has two cylinders, each only six by seven inches; its power is nine horse, and it carries water and fuel for a twenty-mile journey. The seat resembles that of a gentleman's carriage and is placed in front, where it is steered, the drag put on when descending hills, and where the steam is also governed.

Of the perfectly practical character of this steam carriage there can be no doubt; and why should there be? Steam carriages on common roads were run at the rate of twelve miles an hour, thirty years ago; they were practical then, but not profitable as public conveyances. It is one thing for a gentleman of wealth to build a steam carriage for pleasure, as the Earl of Caithness has done, but quite a different thing to apply such a carriage for purposes of public traffic. The question is not the practicability but the payability of such agencies. It is not a question of profit and loss with a man of wealth who keeps his pleasure carriage—it is one of comfort and enjoyment—a constant expense, without an idea of profit. In this sense, we really hope that some of our men of wealth and fashion, who enjoy the exhilarating lux-

ury of driving lightning-going steeds, will get one of these steam carriages and "clear the track" at the rate of twenty miles per hour. Such an establishment would undoubtedly create a sensation. We assure all who may wish to engage in such a laudable enterprise that such carriages can be built in any of our American locomotive shops.

A few years ago, the Hudson River Railroad Company employed a condensing locomotive, called the *Dummy*, for drawing the cars through the streets. It was laid aside after a time, but it is reported that the same company are now having two engines of a similar character built for them at Paterson, N. J. The reason for employing a condensing hauling engine in the streets is to obviate the noise of the exhaust in the chimney, which is said to be a terror to horse flesh. We are surprised at the thickheadedness of city authorities and others, in not permitting light high-pressure locomotives to run on street railroads. They are as safe and manageable as horses, and we doubt not but the time is not far distant when they will be allowed in all our streets, and when they will also be used for drawing heavy loads along the docks, in every notable shipping port in the civilized world.

THE PATENT OFFICE AND ITS ADMINISTRATION.

It has never been the policy or the purpose of the conductors of this journal to create a factious opposition to the management of the Patent Office. We have always endeavored to encourage the Commissioner in the discharge of his duty, and to render him, as far as we possibly could, our hearty co-operation. As evidence of this, we appeal to ex-Commissioners Mason, Holt and Bishop. It is true that when Judge Mason and Mr. Holt were at the head of the Office, we had occasion to differ with them, but our difference was amicably conducted, and at no time did we fail to receive from either of them, a frank and cordial welcome to the Patent Office. The affairs of the Patent Office are of deep public concern, and there is not a single section of our whole land which does not feel an interest in its perpetuity and success. We feel bound, therefore, from a sense of duty to the public, and especially to the great body of inventors, to exert our influence against any effort to drag the Patent Office back to the old illiberal basis upon which its affairs were conducted previously to the Commissionership of Judge Mason. Commissioner Ewbank was an honest man, and was faithful to the duties of his office; but he rendered himself unpopular, principally because—like most authors—he did not possess that administrative skill so essential to the proper management of so important a bureau, and failed to comprehend its true policy.

When Judge Mason took the office, he found its affairs not only in great disorder, but also in very bad odor with inventors and their agents. By a prodigious amount of labor and perseverance, he brought order out of confusion and soon established in the Office a sound and healthy policy. He relied on his own judgment in a great measure, and listened to the advice of subordinate officers and others only so far as he thought the best interests of the Office could thereby be promoted.

Judge Mason proved himself the inventor's friend, but, in reference to the examining corps of the Office, we feel bound to say that he sometimes allowed his sympathies to overbear his judgment. We remember, upon one occasion, asking Judge Mason why he kept a notoriously illiberal Examiner in office. He replied: "on account of his large family," at the same time admitting that the interests of the applicants under his charge were not properly conserved. We pressed the same inquiry upon Mr. Holt, and he acted upon it by removing the Examiner. He very justly remarked that "the Office might as well close its doors as to treat inventors thus."

In our article, two weeks since, we quoted from the admirable Report of Commissioner Holt, setting forth what should be the true policy of the Patent Office in its treatment of inventors. On the 13th of June, 1857, an application made by D. D. Badger, for an iron girder, was rejected, and upon it there arose a controversy. It was referred to one of the oldest Examiners in the Patent Office. He took the lantern of Diogenes, and searched in all the volumes, nooks and crannies of the

Office, for the purpose of defeating the application. Commissioner Holt, in overruling the Examiner's decision in this case, uses the following language:—

"If, however, the stringent construction now favored in certain quarters be adopted in practice, it is to be feared that many inventors who have been summoned to this office by the Constitution, would find its doors shut in their face. It must be assumed, as the only tenable ground which can be occupied by the administration of this office, that every new and useful invention is patentable," &c.

The opposition which was arrayed against this genial and friendly policy (a policy well calculated to make the inventor feel at home under the roof of the Patent Office) amounted almost to insubordination; in fact, Commissioner Holt was obliged to remove some of the Examiners who undertook to subvert his policy. They found that the Commissioner was familiar with Dogberry's discovery, that when two persons undertake to ride the same horse, one of them must needs ride behind, and Mr. Holt probably thought that, under the circumstances, he was entitled to the front seat. The management of the Patent Office has been very successful for the past few years, and there has been but one opinion, outside of the Office, respecting its liberal policy. The recent inauguration, however, of the Revisory Board is a backward movement, and must result in great injury not only to the interests of the Patent Office, but also to the great body of inventors who are "summoned by the Constitution" to seek its protection. Inventors have a right to complain of this movement, and we are not surprised to hear, and to receive such comments upon it as it deserves. It is an unpopular movement and is exerting a pernicious influence upon the whole examining force of the Office.

There is another matter upon which we wish to say a few words. Commissioner Thomas has the reputation, we believe—and, no doubt, justly—of being an able lawyer. We have carefully examined some of his decisions on extension cases, and have usually found his opinions not only well founded, but ably sustained. But in looking over some of his decisions in interfering applications, we have found a singular incongruity between some of them and his decisions in extension cases. This discrepancy can be accounted for only by the fact that the Commissioner gives personal attention to the one, and refers the other to a special Examiner. In this matter, we are sorry to say the Commissioner seems not to be well sustained, and his administration is likely to suffer considerable reproach unless he applies a certain remedy which is within his reach. And here we would remark, that whatever opinion we might have entertained, heretofore, in regard to appealing from the decisions of the Commissioner to an outside tribunal, we have found by practical experience great benefit to some of our clients, from exercising this right of appeal. Take the case of *Collins vs. White*, for which a patent is now ordered to issue to Mr. Collins. An interference was declared between the parties, on an improvement in edge tools. Mr. Collins presented testimony taken in accordance with the established rules of the Office. Mr. White did not, but instead thereof, he made an *ex parte* statement, giving no opportunity to Mr. Collins either to confront him or any witnesses he might have brought forward, by cross-examination. It is a fact, and stands upon the records of the Patent Office, that the mere assertions of White were treated as evidence, and the issue was, in a great degree, determined against Collins by them. We cannot follow this case through all its zigzag movements; suffice it to say that for eighteen months it was oscillating between the Patent Office and the appellate court, until at last, his Honor Judge Merrick settled the question in favor of Collins. It required all this time, besides a considerable expenditure of money (enough to discourage inventors of moderate means), to overcome the obstinacy of the Patent Office, on what seems to us the plainest principles of law and justice. Mr. Collins failed to obtain justice from the Patent Office, and, acting on the advice of his attorneys, he sought and obtained justice from an outside tribunal. Inventors must never yield their right of appeal until the affairs of the Patent Office be conducted upon sounder principles than these. This is not an isolated case; there are others to which we purpose to allude more definitely hereafter.