

the train. The moment the train is stopped, the brakes are released, and it is ready to again resume the journey, and at any time the operation is repeated. This brake, as will have been seen from the description is perfectly automatic, and requires no more attention than coupling the cars together before starting as at present, with the exception of pulling in the pin, *n*, which is no extra trouble; everything can be done from the platform of the car, and thus for many reasons it is an accident preventer.

Louis Brauer, of Washington, D. C., is the inventor, and he patented the invention May 12, 1857. Mr. B. will be happy to furnish any further information on being addressed to the care of C. Shaeffer, Ninth street, in the same place.

Scientific American.

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Decision in a Telegraphic Case.

We learn from one of our exchanges that Judge Logan lately rendered a decision of some interest in the Chancery Court, at Louisville, Ky., in a telegraphic suit. The suit was entered by A. E. Camp against the Western Union Telegraph Line, to recover damages for loss resulting from erroneous transmission of a message. Plaintiff ordered a certain amount of whisky by telegraph, at the rate of *fifteen cents*. The wires delivered the message with *sixteen* substituted for the correct figure. The order was filled, but plaintiff refused payment at the increased price, and came upon the company for damages. Judge Logan decided for defendants, on the grounds that the failure to deliver the message correctly was not alleged to be the result of negligence, but the result of a mistake, to which, from the very nature of telegraphic operations, communications are liable; and that the message in this case was sent subject to the express condition that defendants would not be liable for mistakes arising from any cause, unless the message was repeated by being sent back, in which case the mistake would not have occurred. The learned Judge moreover declared that the points of difference between the nature of telegraphic companies and the nature of common carriers are so numerous and so obvious, as to render the unqualified application of the law of common carriers to telegraph companies delusive and dangerous.

With all proper deference to the judgment of the erudite judge, we beg leave to differ from him in the main positions he has assumed. Our mind tells us that neglect may arise from carelessness or inattention; and we humbly opine that the mistake of sending the word *sixteen* over telegraphic wires instead of the word *fifteen*, or rendering one word for the other at the opposite terminus, clearly indicates a most flagrant lack of comprehension or care on the part of the operators, or else an inability to properly operate the telegraphic instrument, in all of which cases we believe the company to be, by law and equity, liable for any damage that accrues from such inexcusable blunders. The fact that the message was sent subject to the condition that the company would not be liable, unless an additional sum was paid for its return and repeated transmission, does not, in our opinion, remove the liability of the company for such damages, any more than the repeated declarations of railway and steamboat companies, "all baggage at the risk of the owners," frees them from their legally acknowledged responsibility for its safety.

In regard to the alleged difference between the nature of the two chartered companies, in respect to the messages to be transmitted by the one, and the baggage and passengers by the other, our theory is simply this:—In the former case, the telegraphic operator receives a written message to transmit, either directly from the author or from an agent through

whom he can communicate with the author, in the event of its illegibility. If he and the receiver at the station to which it is sent understand their business, and properly observe their duty, it is utterly impossible for such a blundering error as the substitution of one word for another to occur. After the delivery of a message at the office it is out of the sight and power of any controlling influence of the one who sends it. The operations of the telegraph are entirely free from the liabilities to the many unforeseen and unavoidable accidents that frequently happen in railway conveyance, and are so exclusively under the control of the employes of the company, that we really think the just principle which binds the common carrier for the safety of his charge, should in like manner apply to telegraphic companies, and make them equally liable for damages arising from their blunders.

As there is no method of ensuring correctness but by reading the proofs of the messages sent, which is now done by telegraphing back, it would be an improvement to have a registering arrangement operating in connection with the key which transmits the message. This would enable the message to be read as transmitted by one operation, and correct mistakes (if any) on the spot.

Colt's Application for Extension of Patent.

We have received the printed copy of an able remonstrance to Congress, praying that body not to grant the late petition of Samuel Colt for a renewal or extension of his patent for seven years, which we trust will be freely circulated for signature among the great body of our people, who, although fully alive to their obligations to the meritorious class of inventors with which our country fortunately abounds, are yet sensible and jealous of their own privileges, and ever ready to check and rebuke the attempts of one individual or company to establish an unjust monopoly at their expense, or in any manner curb or check the inventive genius of others. The exercise of this duty is peculiarly called for at this time when numbers are endeavoring to secure to themselves for a longer period than the ingenuity, skill, time and expense exercised and expended would justify, an exclusive right to combinations and arrangements of parts essentially necessary to the production of certain results, but susceptible of greater improvement.

We have always opposed the system of special legislation in relation to existing or expired patents, except so far as is necessary to correct errors developed by judicial decisions, or to grant pecuniary rewards or indemnity, or cases of an analogous character. We have not hesitated on former occasions to animadvert with such a degree of firmness against the attempted renewal by Congress of many patents, as to produce the strongest feelings of pain and resentment in the minds of previously personal friends interested in their success. In many of these cases some substantial grounds for the interposition of Congress were adduced, although not sufficient in our opinion to justify the granting of the extension applied for, but in the case of this last appeal of Mr. Colt for the re-establishment of a monopoly, whose exclusive enjoyment for twenty-one years has brought millions to his coffers, after the law has virtually given all claim to the invention to the public, we can only see additional reasons for the previous animadversions we have thought it our duty to make. The injury which the consummation of this measure would inflict upon the public at large, although great, would be but trifling compared with that which it would have upon the many enterprising and deserving manufacturers in the East and West, who have commenced the manufacture of revolving pistols, different in the construction and arrangement of many of their parts to Colt's, yet embodying the main features secured under his expired patent. Such an act of injustice would not only be fraught with the evils we have heretofore stated, but in direct opposition to the very spirit and genius of our laws, and the objects for which they are formed.

In the grounds assumed for the additional renewal, Mr. Colt does not deny that the pecuniary reward he has derived has compensated him in a most extraordinary degree for the ingenuity, skill and expense bestowed upon his invention, nor does he deny the oft-repeated statement that the long, exclusive protection he has enjoyed, has enabled him to realize such an immense capital, and construct such perfect machinery for the fabrication of the most intricate parts of his pistol, as to pre-eminently place him in a superior position to compete with all rival manufacturers. Indeed, the necessity of what he has now more than accomplished, in these respects, by his last seven years' protection, was one of the main arguments he used to Commissioner Burke in 1850; and common fairness to his co-laborers in the field of invention and enterprise, if not the desire to adhere to a tacitly implied promise, should have prevented him from making this additional demand. The granting of this extension would place in the hands of Mr. Colt a supreme power over the actions of a large number of manufacturers, who have in good faith, and under manifest disadvantages, invested their all in their establishments. It would, moreover, deprive the public of the use of many improvements, which ingenious mechanics throughout the country have devised, and at many sacrifices of time and money, put into successful practice, under the firm conviction that they would be allowed to use the very base of their contrivances, the revolving chambers, after the expiration of the patent in February, 1857. We commend this remonstrance, as well as the able opinion of Judge Mason attached thereto, to the perusal and signature of our readers, and trust that when the consummation of the grave outrages, which it is intended to avert, is attempted in Congress, the Representatives of the people will properly comprehend the mission entrusted them by their constituents, and defeat this odious scheme. By such a course they will vindicate the purity of their motives from the improper imputations cast upon many of them by the press throughout the country.

A Curious Freak of Nature.

We have received a letter of interest from J. E. Holmes, of Newark, Ohio, who informs us that there is a white oak tree, of fine healthy growth, standing near Robinson's Coal Oil Works, in Perry county, on which, at fifty-five feet from the ground, is engrafted a black oak top of lofty and vigorous growth. It is about two feet in diameter at the usual height of cutting trees, and the body stock is fourteen inches at the grafting portion, and the black oak immediately above it at once enlarges to twenty-two inches. The grafting is represented as being of the most perfect description, and there is no appearance of deterioration in either the white or black oak portions. There are several limbs below the union, and those above are said to be equal to any tree of the same description in that section of the country, and would form a luxuriant and proper superstructure for a stock of three feet in diameter. The only reasonable supposition for this curious growth is, that the white oak portion was broken by the falling of a black oak tree near it, and that a branch of the latter must have been so driven into the fracture as to unite and grow in a firm manner to produce the singular phenomenon above related.

Daniels' Patent Granular Fuel.

An engraving illustrating the manufacture of this fuel was presented to our readers on page 228, Vol. XI, SCIENTIFIC AMERICAN. It consists in converting the stunted growth of brushwood, with which farms generally abound, into a compact excellent fuel for light fires, or for igniting the more solid materials employed in heavy ones. This is effected by cutting the several twigs and heavier portions of brushwood into lengths about equal to their average diameter, by means of a machine constructed and operating

after the manner of an ordinary straw-cutter, and thus producing a new and useful article of manufacture from a material which has heretofore been considered as worse than useless. Whether the exclusive claim to a fuel prepared in this way is a legal one or not, we do not pretend to judge, as the question has not, to our knowledge, been subjected to any judicial test since the issue of the patent under which it is held, and which was issued to Reuben Daniels, of Woodstock, Vt., in June, 1852.

As a fuel for kindling coal fires or for heating small apartments, it possesses the important desiderata of inflammability, cleanliness and economy, as we can confidently assert from experience. We think this invention well worthy the attention of farmers in the vicinity of cities, who are overrun with brushwood, and annually destroy large quantities of it, from the fact that from its nature and cumbersome character, they are unable to transport or store it in a compact form. Persons desiring further information, with a view of entering into a business of this kind, can address Daniels & Raymond, Woodstock, Vt.

To Sportsmen.

S. Sutherland, of Richmond, Va., gives the following rule to load a gun properly:—"Try it repeatedly with charges, consisting of equal bulks of powder and shot, till you come to a quantity with which the gun will not recoil, or but slightly; this will give you the proper quantity of shot. With this load, however, the gun will scatter in all directions. To correct this, reduce the quantity of powder until you find that the shot is carried as close as you desire. A gun loaded thus, will never burst. To make it carry further, use shot of a larger size. No gun should be fired more than twenty times without being wiped out. When in the field, it will be much safer to carry the piece always at half-cock."

Freaks of Cold.

While our past winter was one of the mildest within the memory of man, it was very different in Southern Europe and some other countries, where frost and snow are seldom seen. In Italy, the river Po was frozen over at Ferrara, the first time in the present century. At Constantinople snow fell for 14 successive days, and in all the Isles of Greece snow and frost were common. Snow also fell in the Island of Malta for the first time since 1812; and on the shores of the Mediterranean and throughout various parts of Asia Minor, snow was seen for the first time in half a century.

New Food for Bees.

It is stated that two agriculturists of the department of the Ver, France, recently discovered their bees feeding upon cakes of oil seed, which had previously been subjected to the oil press, and which was being beaten up into a paste with water, to be used as manure for potatoes. The bees were afterwards allowed abundance of this food, and their owners have since been rewarded with nearly ten times the usual increase in their productions of the insect. This is a piece of valuable information to our bee-keepers, and we should advise them all to try the experiment.

Lightning and Gas.

The galvanic gas igniter of Saml. Gardiner, Jr., illustrated on page 320, Vol. XII, SCIENTIFIC AMERICAN, has been applied to the great chandelier of the Senate Chamber in Washington, and, as we are informed, with decided success. By the simple turning of the circuit key, fifteen hundred gas jets were ignited in an instant!

Preliminary Examinations.

A correspondent writing from Georgetown, Ill., sends us a sketch and a fee of \$5, for the purpose of having a preliminary examination made at the Patent Office. There is no name signed to the letter, therefore we cannot answer it until we can receive this information from our correspondent.