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Contents.

(Illustrated articles are marked with an asterisk.)

TABLE OF CONTENTS OF

SCIENTIFIC AMERICAN SUPPLEMENT

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THE VESTIBULED CAR PATENT DECISION.

Twenty or thirty years ago the passenger cars of the Housatonic Railway, running northerly from Bridgeport, Conn., were equipped with flexible hoods, covering and inclosing the ends of the cars. In the sides of the hoods were entrance doors. When the hoods were in use and the ordinary end doors of the cars thrown open, the train formed as it were one long, continuous car, forming, in fact, what is now known as a vestibuled train. These vestibuled vehicles of the Housatonic road were specially advantageous for the summer ventilation of the cars. Air tunnels were extended from the front of the locomotive to the first of the hooded cars, into which poured a mass of pure air, free from dust and cinders; the fresh air passed through the entire train, being discharged from the rear car. These vestibuled cars were used for several years with much satisfaction to the public, but somehow or other they were finally given up and remained as it were a lost art until the Pullman Car Company revived them, added improvements, obtained patents thereon, and introduced the now well known and highly appreciated Pullman vestibuled cars. The success of these palatial structures induced other companies to adopt the hoods, among them the Wagner Company, whereupon the Pullman Company brought suit for infringement, asking the court for such a broad interpretation of their patent claims as should shut out all other car companies from using vestibuled cars in any form. These monstrous claims, it appears, have been allowed by the United States Circuit Court, Massachusetts, Judge Colt presiding.

The suit was brought by the Pullman Car Company for infringement of George M. Pullman's patent of May 14, 1889, against the Boston and Albany Railroad Company, but the real defendent is the Wagner Palace Car Company.

The Court, in answer to the ground of the defense that the patent is void for want of novelty, says: "Considering the amount of thought in the country directed toward improvements in railway mechanism, whereby greater safety and comfort may be secured to the traveling public, it hardly seems possible that the Pullman vestibule system, in view of what it has accomplished, and the immediate recognition of its merits, was the result of the exercise merely of mechanical skill, and therefore not patentable under the laws of the United States. Leaving out the Sessions patent, I can discover nothing in the prior state of the art which anticipates the Pullman patent, or which should render it void for want of patentable novelty."

The Court then took up the Sessions patent, which was a patent granted to H. H. Sessions on November 15, 1887, and which, it is contended by the defendants, describes what is now claimed as the Pullman invention. Sessions is general manager of the Pullman Company, and he applied for his patent two weeks before the Pullman application was made. Judge Colt said that the fact that these applications were filed at about the same time goes to show that Sessions thought he had invented something and that Pullman believed he had invented something; and his honor, after examining in detail the claims of the two patents, said:

"The problem Sessions set out to solve was to diminish certain evils incident to a train of cars, namely, to the starting and stopping of them, and to a swaying which arises under certain conditions when the cars are moving. On the other hand, what Pullman undertook to do was to overcome the difficulties incident to a vestibule connection between cars, and he accomplished this by means of 'flexible or adjustable joints to permit a sufficient movement between individual passenger cars,' which he declares is the invention he desires to protect. I cannot, upon a comparison of the two patents, taken in connection with the evidence of Sessions, hold him to be the prior inventor. It seems to me that it would be an act of injustice for the Court by inference to incorporate the Pullman invention into the Sessions patent, and thus prevent both inventors from deriving any benefit from this improvement, because it is manifest that if we destroy the Pullman patent, Sessions can derive no benefit from the Pullman invention, because he nowhere describes or claims it in his patent."

The Court, in conclusion, said, "Upon the construction now given by the Court to the Pullman patent I have no doubt that the structure used by the defendants is within the patent. It may not work perfectly, but it contains the substance of the Pullman invention. Let a decree be drawn for complainant as prayed for in the bill."

Concerning the decision in his favor Mr. Pullman is reported as saying: "As I understand the matter, the decision covers every point involved in the litigation, and is a complete victory for us. It will mean that no other company can lawfully use a vestibule."

"The decision completely knocks out the Wagner Car Company," said the general counselor. "They will not be able to use any sort of a vestibule."

The public will be at a loss to understand how it is that an invention which was in practical use years ago can now be revived by another inventor, and new patent claims granted to him so broad in scope as to shut out everybody else. In the majority of such cases, especially when the parties are ordinary private individuals, the courts generally take care to limit the interpretation of new claims to the precise improvements set forth, which is as it should be. But when the plaintiffs are rich and powerful, like the Pullman Company, or the Bell Telephone Company, then our courts are apt to blunder, and wield their judicial power to strengthen and support these grasping and gigantic monopolies. Evidently this is not as it should be.

INTERESTING EXHIBITS AT THE AMERICAN INSTITUTE FAIR.

The 59th annual exhibition of the American Institute opened, in this city, on October 1, and is now in progress. It is to continue until November 29. In most respects it is in full operation, and the floor space is well filled with interesting exhibits.

Woodworking machinery and products are well represented. The Pyrogravure Decorative Wood Co. shows some exceedingly pretty panels and other parts in different woods. These have designs upon them in full relief. Some of the designs are quite ornate, and the exhibit suggests very excellent ideas for home decoration. Various other exhibits are in the line of house finishing.

The Burlington Venetian Blind Co. show their sliding blinds, Hill's patent, and mosquito nets and Venetian blinds. The latter, with slats connected to vertical tapes, take the place of roller shades. Copied from an old European structure, they have been improved to accord with American practice. The well known Norton door spring and check is shown, together with the Prescott trackless sliding door. This door works by a very ingenious species of parallel motion, so that it is suspended from a single pin. The whole is adjusted in place without touching the plaster of the partition which the door enters. It cannot, of course, run off to one side, as there is no track nor rollers. A very simple wedging arrangement is provided, which fixes the door laterally. The Barnard door holder, a very simple substitute for striking pin, with the added function of keeping the door open, is shown by the same agent.

The Monumental Bronze Co., of Bridgeport, show their white bronze monuments, with their slightly roughened surface, almost resembling stone. Their manufacture has already been described in these columns. In fine iron casting, T. Shriver & Co., of this city, have an interesting exhibit. Their specialty is in the line of dies for silverware, jewelry, paper hangings, cane and umbrella heads, and the like, and the quality of the castings is very fine.

Another small exhibit, yet one of great interest to the metal worker, is that of the Spring Garden Metal Works, of Philadelphia. By a secret process, the invention of Mr. Ellwood Ivins, they produce tubing of all sizes and of great lengths from the most diverse materials. From the finest Stubs steel the minute tubing for hypodermic syringe needles, one hundredth of an inch in diameter, is produced in long lengths. Some of the specimens in the exhibit were coiled up and resembled exceedingly fine wire. Gold and aluminum, as the opposite extremes, are made into tubing of all sizes. The larger gold tubing is used for watch case work, in making the rim in which the crystal is set. From a long tube successive slices or rings are cut, which, from their great accuracy in respect to thickness, are worked by means of dies into the best possible rims. Stem tubes for watches are also made, with such unerring accuracy as to thickness of walls that the fitting is perfect from the start, and no time or labor is required to make corrections. The inventor states that his invention is applicable to the production of uniform tubes of all sizes and forms, and of all metals, from the size of a fine hair up to a three foot water pipe, and that there is no weld, solder, or joint. The invention is evidently a most remarkable one, and capable of widely extended uses. The ready production of perfect tubes out of such difficult working metal as aluminum is one of the peculiarities of the process.

In the production of heat the United States Fuel Company shows various applications of sestalit, a fuel that is burned in portable heaters for general domestic uses. It needs no chimney or special ventilation, and the stoves in which it is consumed have no smoke pipes. A rival to gas or charcoal for heating purposes is shown in the Stickney kerosene oil burner and plant for heating soldering irons. The oil is fed through a jet, and is burned by the agency of a blast of air. In gas stoves, the American Meter Company, of this city, has an interesting exhibit. One of their open heaters has a backing of peculiarly indented bricks, with small cast iron gratings or fingers in front of them. The gas is burned with a blue or non-luminous flame, and brings the iron fingers and the surface of the fire brick to full incandescence, so as to produce the effect of a strong anthracite coal fire. Their well known cooking stoves and luminous flame open heater are also shown.

The artificial production of cold is illustrated by the exhibits of L. Dermigny & Co. The exhibitor supplies a freezing apparatus for the production of ice and ice