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Materials for Paper.

The demand for paper has increased so rapidly during the past five years, that the price of the raw material—cotton rags—used in its manufacture, has advanced to such a degree as to excite attention, and challenge inventors to produce a cheaper substitute. Various materials have been proposed to us from time to time, as substitutes for rags, such as sea grass, Florida grass, the cotton plant itself, and other vegetable productions. One paper in our country, the *Philadelphia Ledger*, has been printed for some time on a composition paper of 66 per cent. of straw and 34 rag pulp, made by Mellier's process. This paper has a firm grip, and looks tolerably well, still, it affords evidence that even the common qualities of printing paper have not yet been made from straw alone. It is, however, a great improvement on the best straw paper hitherto made, and it may be still further improved. During the last fall, G. W. Beardslee, of Albany, N. Y., exhibited to us some pulp and small samples of paper made from wood, and he stated, that from the experiments which he had already made, he was satisfied he could make as good paper from different kinds of wood as from cotton rags. During the past winter he has been prosecuting his experiments, and the result is now before us in some copies of the *SCIENTIFIC AMERICAN*, printed on Basswood paper, likewise some writing and other samples of paper sent for our use, to test their qualities. We have also examined various kinds of paper made from different kinds of wood, by Mr. Beardslee—from wrapping to fine drawing paper, all of a very superior character. The manufacture of paper from numerous kinds of grasses, straw, and wood, is not a new thing under the sun, all this was done long ago, but the question is one of economy—the production of cheaper paper than that made from rags. Jacob Christian Scaffers, a German theologian, printed a book in 1772 on 60 specimens of paper, made from as many substances, such as straw, wood of various kinds—willow, beach, &c.—and a number of grasses. In fact, it has long been known, that paper can be made out of every vegetable material of a fibrous character, but cotton rags have hitherto been furnished so cheap, as to defy competition from any other. This has been the case especially since the discovery of bleaching by chlorine, by which the blackest and dirtiest calico rags, which before that time were used for making wrapping paper, can now be bleached as white as snow.

As this is a question of economy entirely, Mr. Beardslee has informed us that he can make paper from wood as cheap as that made of cotton rags, even if the latter cost nothing. We wish success to the discoverer of every improvement in the manufacture of cheap paper, for it is the grand vehicle for spreading knowledge among men.

The New York Crystal Palace Association. Indignation Meeting of British Exhibitors at London.

The *London Times* of May 11th, contains a report of a meeting of some of the foreign exhibitors at our late Crystal Palace, to concert measures for the recovery of their property, alleged to be detained by the N. Y. Crystal Palace Association; also to procure compensation for damages, &c.

The call for the meeting originated with a Mr. W. G. Rogers, who, on being invited to act as chairman, announced himself as a very severe sufferer. He said he sent a splendid mirror to the New York Exhibition worth \$1700, but after the shipment, could get no tidings of the goods, until at last, one day, being in the London Dock, he saw the case, which had been returned. He soon after ascertained that the glass and moldings of the frame were smashed all to pieces. To aggravate the case still further, a bill of \$75 dock charges was demanded of him by Mr. Major, agent of the Association.

Mr. Arrowsmith said he had sent over a cabinet worth \$1200, but had no idea now of its whereabouts. Mr. Moore was anxious to get back his goods, value \$1500. Mr. Jenens said his firm had had \$1000 worth of goods spoiled.

Mr. Loft had been informed by a gentleman in Dublin that he had two valuable carriages there, which he could not get back.

The Chairman remarked as a singular fact that a large quantity of armor from the Tower was there, and he supposed the Queen would have to send a broker over to get it back again. [Laughter.]

Mr. Frewen was himself at New York last October, when he saw broken painted windows lying under a counter to the value of \$2000. He had himself a painted window there which he could not get back.

Several other gentlemen made statements as to the value of contributions which they could not get back, and complaints as to the careless manner in which their property had been treated, and faith broken with them by the New York Association. The bankruptcy of the Association was imputed to the lukewarm manner in which the New York public had supported the Exhibition.

Mr. Penny inquired whether the President of the United States had been written to on the subject? He had opened the Exhibition officially, and an application ought to be made to him.

After an animated conversation, in the course of which it was stated that no exhibitor present had received any order from America in consequence of the Exhibition, or sold any article exhibited, the meeting was adjourned for a week, to give time for further inquiry and consideration.

The above statements and complaints, if they were all true, would be sufficient to stir up the indignation of any gentleman of less irascible temperament than Mr. Rogers. They would be enough to brand with infamy the names of every manager of the Association who had the least connection with the alleged transactions.

We are happy in having grounds for believing that Mr. Rogers' indignation meeting was somewhat premature.

In reply to these gentlemen, Mr. John H. White, formerly a President and now the Receiver of the Crystal Palace Association, has published a very lucid statement, in which each particular grievance is examined and answered.

In regard to Chairman Rogers' looking-glass, he says:—"In consequence of BAD PACKING when it was put up for exportation to this country it was found, on opening at the Palace, that the glass was 'smashed,' and the beautiful carving more or less injured. When the case was taken off the vessel the broken pieces of glass rattled in the box. I have a certificate of these facts from the persons who assisted in removing the case from the vessel. It was not the fault of the Association that the glass was smashed and the carvings injured, but the fault of Mr. Rogers' packers.

I may add, Mr. Rogers was notified of the damage which his case had sustained immediately after the fact was ascertained. Mr. Rogers further stated that "he received a bill of £15. 3s. 10d. for dock charges from Mr. Major, the shipping broker appointed by the New York Association," and which of course (he adds) he "declined to pay."—Now I assert that no such charges were ever imposed by the Association, nor did the Association ever authorize Mr. Major to impose them.

"Mr. Arrowsmith's cabinet," he says, "is now in the Palace, and in good order. This is the first intimation I ever had that he desired to have his cabinet returned.

The Dublin carriages referred to have long since been returned.

Mr. Frewen failed to state how those windows came broken—whether they were broken at the Palace, or by reason of careless packing on the part of the exhibitor, and whether the Association had not in all cases settled for breakage done by employees at the Palace? Any article he has at the Palace awaits his order, and I deny that he was ever refused possession of any article he

claimed. His statement about broken glass is so indefinite that it lacks potency for want of particulars."

Other items of complaint are also satisfactorily accounted for. Mr. White says that one reason why there were so few sales of foreign articles, was the exorbitance of the prices put upon them by the owners. The statement that no foreign exhibitor received an order or sold an article on exhibition, we know is not so, although the sales did not amount to very much. The assertion that the President opened the Exhibition officially is ridiculous. He was a mere guest, invited by the owner, like many others on that occasion, to give zest to the enterprise—a sort of advertisement for the stockholders.

The Association has unquestionably broken faith with its foreign exhibitors in refusing to pay the return freight on all goods sent home. It originally agreed to pay transportation both ways, and should have done so if the building had to be taken down and a post at a time sold at auction to raise a few dollars for the purpose, but having latterly become bankrupt through the wretched and imbecile management of its first President and aristocratic Directors, and since by the *Barnumization* it has gone through—it now leaves all its creditors, foreign and domestic, in the lurch. If Mr. White is to be believed, however, its intentions are good. The Association means to pay its debts, and some time or other to compensate the foreign exhibitors for the return freight, with interest. At present, if levy were made, the returns would exhibit nothing but old iron and window glass. Creditors must bide their time. We have more confidence in the management and statements of Receiver White, than in any executive officer previously employed by the concern. If anything can be saved from the wreck he probably can do it.

Opening of the Paris Exhibition.

Although it was generally believed, until within two days before the 15th, that the Exhibition would not be opened on that day, owing to the incomplete arrangements, yet it was determined by the Emperor not to disappoint the public again; so on the 13th the *Moniteur* published the official programme. The day of inauguration was not propitious; it was cold and damp, with a drizzling rain, and this made it very uncomfortable for spectators, who had been exhorted to wear dress coats. When the doors were opened, at ten o'clock, the spectators poured on in a huge stream, each endeavoring to get a good seat, and soon there was exhibited a rich display of jewels, dress, and French beauty. The Diplomatic Corps, the officers of Government, the Senators and Legislators, were dressed in official costume, offering a marked contrast to the plain dress of the civilians, especially the Americans. About eight thousand persons were present when the Emperor and Empress entered, accompanied by the officers of the household, magnates of the realm, and the ladies of the Court. They approached the stage on which a throne was erected, and each took his and her proper place in view of the whole audience. The scene was a thrilling one in point of display, and rich strains of music from hundreds of instruments grandly reverberated through the lofty arches. There was not much *palavring* made, nor time wasted. Prince Jerome, President of the Commission, at once proceeded to read a speech to the Emperor, and to it the latter replied in a few words, in which he requested him to return his thanks to the Commissioners for their zeal and care, and concluded as follows: "I open with joy the Temple of Peace, which invites all nations to concord." The Exhibition was now officially opened at half past one P. M.—in one short half hour after the ceremonies were commenced. This greatly pleased the spectators, for the day was disagreeable, and not well calculated to create enthusiasm for long-winded speeches. The interior of the building appeared somewhat sombre and dull, owing to its color, except once or twice when a few struggling sunbeams burst from the clouds and shed their rays through the painted windows.

The effect was magical; for the rich light kindled into beauty a thousand different objects unseen before. This was but a foretaste of what may yet be expected when all the departments are complete, and basking in a full flood of light.

Steam in Sewers.

It is well known that many of the steam engines employed in cellars in our cities exhaust their steam into the sewers. We have always believed that this was beneficial in destroying miasma and noxious effluvia, but the *New York Times* of the 30th ult. condemns the practice. It says, "It is undeniable that steam thus thrown into the sewers keeps their contents at a temperature most favorable for rapid putrefaction, and at the same time, by creating an outward pressure, is constantly forcing the poisonous gases into the streets." It then calls upon the Board of Health to examine into the matter. We deny that steam thus thrown into the sewers favors rapid putrefaction. On the other hand, we are positive that it tends to prevent putrefaction, and at the same time destroy noxious effluvia. High pressure steam is employed in some of the London hospitals for disinfecting clothes, feather beds, &c.—High pressure steam is a purifying agent, and it destroys animal and vegetable putrefaction at once. Every ten horse power steam engine exhausting into a sewer, sends at least 6250 lbs. of water through it every day, and as hot water is superior to cold for detergent purposes, every such steam engine in our city must be a sanitary agent.

Eruption of Mount Vesuvius.

The late news from Europe contains accounts of a new eruption of Mount Vesuvius upon a grand scale,—the greatest that has occurred for centuries. The report of its sublime grandeur had attracted thousands from all parts of Europe to witness the scene, and the road from Naples to the vicinity of the spectacle was continually crowded with spectators going and returning. The discharges of the volcano are represented to have been terrific, and the lava poured over the lips of the crater in huge swelling waves, sweeping downward and onward over vineyards and villages that had flourished for centuries. The lava, like torrents of burning brass moved slowly but unresistingly forward, hissing and sparkling as it met with obstacles in the way, then accumulating and flowing over them, "eating up every green thing." Houses and stone wall fences, furnished no effectual resistance to its course, it flowed down a resistless sea of fire. The sides of the crater resembled those of a red hot boiler. It was feared that the towns of St. Sebastiano, Massa, di Somme, and Polle-na, would be destroyed. Cercola has already fallen, and it was thought that a destructive explosion, throwing huge rocks and piles of burning ashes far and near, and scattering death and ruin around, would conclude this grand eruption.

The Street Sweeping Machines.

The company operating these machines in this city, show their efficiency in a most marked degree, by the manner in which they keep their districts clean. Thus far they have operated well, and have given great satisfaction to the inhabitants in the streets on which they are used.

The Minnie Rifle.

The committee of the Association of French Inventions has decided that the Minnie rifle shall in future be called the Delvigne Minnie rifle, M. Delvigne having declared that while he reserved to himself the priority of the invention, M. Minnie introduced improvements tantamount to original inventions.

Packing Snuff in Lead.

The *Annales d'Hygiene* of Paris has published an article pointing out the danger arising from packing snuff in lead, as the damp in the snuff acting on the lead oxidizes it, and forms a soluble salt of a poisonous nature. The tobacco administration of France has acted on this advice, and discontinued the use of the lead envelope.