

Correspondence.

Frozen Soap Bubbles.

To the Editor of the SCIENTIFIC AMERICAN:

Having noticed your item about soap bubbles in your last issue, I will cite a curious thing that happened here last winter when the thermometer stood about 14 degrees below zero Fah. One of my children, a little boy, was "blowing soap bubbles," and suggested that he try what the cold weather would do to them. I consented, and, after blowing one, sent it adrift in the usual way, when it froze instantly and fell on to the snow a frozen hollow sphere of ice. It was tried several times with the same result. A curious fact, also, was brought out, that when the thermometer rose to 0°, no frozen spheres could be made, whether from change of temperature or change of air I could not ascertain. I would like to know if this can be accomplished at a lower altitude, where the air is not so dry as it is here.

WILLIAM PIM.

Denver, Col.

Curious Electric Discharge.

To the Editor of the SCIENTIFIC AMERICAN:

I am making asphalt pipe. The process is as follows: Crude asphaltum and gravel, equal parts by measure, are each heated in separate kettles to 400° F., then both are mixed together and filled into sheet iron moulds. The space between the moulds is maintained by a cast iron ring on the bottom and the moulds are held to that ring by inside and outside wrought iron rings. After the moulds are cooled off, which takes time according to the size of the pipe, from two to eight hours, they spring off from the pipe after the wrought iron rings have been removed and the moulds tapped with a hammer. Just at the moment the moulds spring off there can at times be seen large sparks between the sheet iron and the pipe. By having my hands on the pipe and the moulds I received sometimes such heavy shocks as to draw my arms together. Men working for me have experienced the same.

The object of this letter is to find out if you or any of your readers can explain how this electricity, for such is what I judge it to be, accumulated there, and why it discharges just at the moment the moulds are taken off.

GUS. SCHADE.

Anaheim, Cal.

[The description suggests that a condenser is formed by the combination, which is discharged on opening the mould. Whence the charge is derived is not clear.—Ed.]

The Timber Boom.

Both in a saving of time and timber, the "boom" is a vast improvement over the raft. In the first place, there is no boring of logs and afterward fastening them together, as in the rafting method, and thousands of feet of fine timber are thus saved. Then the reduction in expense in caring for the logs is considerable. A lumberman's description of a boom is as follows:

"In simple language, a boom is nothing more than a floating pen, in which the logs are corraled as they drift down stream. It may extend along the banks of the creek or river for one, two, three or even five miles, and is divided into pockets or sections of whatever length may suit the conditions under which the boom is constructed. At the head of each pocket there is an opening, and extending obliquely across the river, from the head of each pocket to the opposite shore, is what is known as the 'sheer,' a floating line of logs chained together, that serves to swerve the saw log from its course in midstream at such an angle that it will go directly toward the opening in the pocket of the boom on the other side of the river. These sheers extend from every opening in the boom. It will be seen, then, that the boom, when rigged out for business, becomes a series of funnels and pens with which to catch and hold the logs, but it requires a good deal of expert manipulation to 'save the crop' when the tide is running high and flowing fast."

Cheaper as the boom system is than the rafting, the cost seems a big item when put into figures. The construction of pockets, etc., for a two and one-half mile boom, in Breathitt County, for instance, came to eight thousand dollars recently. Near the pocket ends of the sheers and at the openings in the booms, platforms are built on which the "sorters" are stationed, men who, with pike poles, pull in the logs as they float by. The work is sometimes fast and furious, as when logs are going by at the rate of from fifty to ninety a minute. Sometimes the men are obliged to work for two or three days and nights at a time, only the excitement of the work sustaining them. Their food during such an ordeal is taken by "jerks and snatches," and lucky is the "sorter" who is excused for a cat nap. At night the river is lighted by basket torches, and for warmth fires are lighted on beds of sand which have been laid on the platforms. During a recent big run at Beattyville, on the Kentucky River, one firm alone caught eighty thousand logs.—New York Evening Post.

British Copyright Decisions.

The arguments in a suit that has been before the Law Courts, and has attracted a good deal of attention, for the last year and more, after occupying the court for several days, were concluded recently. The suit has become known as the "Living Pictures" case. The case, taken by itself, is of little immediate interest to photographers, but there are other cases in connection with it that are of importance to all holders of copyright.

It will be remembered that somewhere about this time last year the Empire Theater of Varieties produced a series of tableaux, "Pictures of Living Masters Realized," and among the number were several popular ones, in which Herr Franz Hanfstaengl, the well-known publisher of Munich, London, and New York, holds the copyright. Soon after their exhibition, that gentleman, the plaintiff in the several actions, instituted an action for an injunction to restrain the exhibition of his works in that way, and claimed penalties and damages for the infringement of his copyright. During the arguments, at that time, the case of *Turner v. Robinson* was freely quoted, and it has considerable interest in connection with the two other suits to be referred to presently. That case was this. The plaintiff, Turner, was the holder of a copyright of a painting, the *Death of Chatterton*. The defendant, a photographer, after seeing the picture, arranged in his studio a garret scene like that depicted in the painting, and introduced a living model in the same pose as the Chatterton in the picture. He then took photographs of it, which he afterward published. Proceedings were taken for an infringement of copyright, and it was decided that the photographs, though taken from solid accessories and a living model, were an infringement of the copyright in the original picture, and that judgment was upheld on appeal to a higher court.

In the *Empire* case, now to be referred to, it was decided by Mr. Justice Stirling that the tableaux were not an infringement of the plaintiff's copyright, in so far as the models were concerned, inasmuch as the Copyright Act of 1864 enacts that the pirated works should be forfeited to the owner of the copyright, and, of course, this could not be done with the living models, though, in the case of the backgrounds, it might be different, as the act distinctly mentions piracy of the picture, or "any part thereof." He refused the injunction applied for, on the defendant's giving an undertaking to keep an account of the number of times the backgrounds were used and the amount of money received at the doors of the theater where they were until the trial of the action. The backgrounds, it may be mentioned, were soon substituted by others. Against the judgment of Mr. Justice Stirling the plaintiff appealed, but the Court of Appeal upheld the judgment of the court below. The arguments in the trial of action were concluded recently and among the witnesses called were some Royal Academicians, who testified that the backgrounds were a very important part of the pictures. The artist who painted the *Empire* backgrounds was also called, who stated that he was supplied with the plaintiff's photographs to work from, and he copied them as near as he could. In the end, Mr. Justice Stirling reserved judgment in the suit.

Arising out of this case were two others that are of greater direct interest to photographers, particularly now that they are beginning to stand up for their rights against the illustrated press, and indeed to the holders of copyright generally. When the *Empire* first produced the "living pictures," the *Daily Graphic* and the *Westminster Budget* reproduced some of the tableaux, whereupon Herr Hanfstaengl proceeded against both papers for infringement of copyright—seeking an injunction. The case against the *Daily Graphic* was dealt with some time ago, when Mr. Justice Stirling decided in favor of the plaintiff, as might have been surmised from the ruling in the *Chatterton* case just referred to. Against this judgment the defendants took the case to the Court of Appeal, and that court reversed the judgment of the court below. Then the plaintiff appealed to the House of Lords, and here the ruling of the Court of Appeal was affirmed. Their lordships said that, looking at the variations between the originals and the rough sketches, the latter were not, in fact, copies, reproductions, or colorable imitations of the original pictures or the design thereof, and did not constitute an infringement within the Copyright Act.

The suit against the *Westminster Budget* was very similar to that of the *Daily Graphic*, except that the sketches were more complete and elaborate in the details, and was, for convenience, proceeded with simultaneously with that of the *Empire*. Two R. A.'s, Mr. Alma Tadema and Mr. Marcus Stone, who were also witnesses in the *Empire* suit, testified that the cuts were decidedly copies of the plaintiff's pictures and the design thereof. One of the witnesses, after he had been shown one of the cuts in the *Daily Graphic* and expressed his opinion upon it, was asked by the counsel for the defense if he would be surprised to learn that the House of Lords had decided that these

crude cuts were not infringements, created some amusement by replying to the effect that he should not be at all surprised at any decision of the House of Lords on questions of art. It was contended that the pictures in the *Westminster Budget* were better than those in the *Daily Graphic*, and that they came within the Copyright Act.

In delivering judgment, Mr. Justice Stirling said that, in the case of the *Daily Graphic*, he had thought that the sketches were copies or colorable imitations of the pictures of the plaintiff. They might be bad copies, or imitations, if you please, still he thought they were copies; but the Court of Appeal and the House of Lords thought otherwise. After reading from the judgments delivered by Lord Lindley and the lord chancellor respectively, the learned judge said it became his duty to apply in his court the principles that were applied in the Court of Appeal and in the House of Lords in the case before him, and, in the result, he gave a verdict for the defendants, with costs. He, however, stayed execution pending a question of appeal, and so the matter rests.

From the above judgments it would appear that if, as in the case of the two journals proceeded against, the cuts are crude or badly done, there is no infringement of copyright. Indeed, on the judge remarking that the faces were entirely different in the two pictures, and that it was for that reason, among others, that the lord chancellor had pronounced the *Daily Graphic* reproductions to be no infringement, Mr. Moulton, Q.C., for the plaintiff, then asked if it was contended that you cannot infringe copyright unless you are a good artist? His lordship replied that he had no occasion to lay down any proposition of that sort. He was content to take his stand with the words of the highest authority which was provided for his guidance. The decisions in the two cases referred to clearly tend to render the present Copyright Act still more unsatisfactory than it was before to the owners of copyright, whether photographic or otherwise.—*British Journal*.

A New Cunard Cattle Steamer.

The trial trip of the latest addition to the Cunard fleet, the twin-screw steamer *Sylvania*, recently took place in the Firth of Clyde. Built by the London and Glasgow Engineering and Iron Shipbuilding Company, Limited, Govan, the *Sylvania* is to be engaged in the cattle and cargo trade between Liverpool, New York, and Boston. Although a cargo steamer, the vessel has rather a fine appearance. The *Sylvania* is 460 ft. long over all, 49 ft. beam, 42 ft. 6 in. deep from shelter deck, and carries 6,500 tons deadweight. The vessel being twin screw, the framing of the after end is carried out to meet the stern tubes, and ends in a massive steel casting on each side built into the hull. There are nine watertight bulkheads extending to the upper deck, and these are fitted with watertight doors on each side in the 'tween decks for the handy working of cattle or cargo. In all there are 24 compartments for water ballast, and part of the double bottom under engines may be utilized for carrying reserve fresh water for cattle or boiler use. The bulkheads are so arranged that any two compartments, and in some cases more, may be bilged and the vessel still keep afloat. The entire vessel, including all the holds, 'tween decks, engine and boiler spaces, and cabins, is lighted by electricity on the double-wire system, generated by two compound-wound self regulating dynamos situated in the engine room. At each of the seven hatches there is a cluster of 16 lamps of 16 candle power. The two sets of triple expansion engines have cylinders 22½ in., 36½ in., and 60 in. in diameter by 48 in. stroke, and two large double-ended boilers fitted with Howden's forced draught. There is a large auxiliary boiler for winches, electric lights, etc. The propellers have bronze blades, and the shafting is of Vicker's steel. The vessel was tried both on the measured mile and between the lights, and proved in every way satisfactory—a speed of 15½ knots being obtained between the lights.

The New Mail Bicycle.

The New Mail bicycle is an honored name. It extends back to the days of the "good old ordinary," as the high wheel of early days came to be affectionately termed by its old-time devotees. Now that the high wheel is extinct, the name continues and is applied to a representative high grade safety of the most advanced lines of construction. It is a twenty-three pound wheel, with high frame and large tubing, thus embodying the two leading points of 1895 construction. It is constructed by William Read & Sons, 107 Washington Street, Boston, Mass. The adjustable handle bars and detachable sprocket of original design are other characteristic features. The seat rod is also new in plan and is found to be an acceptable improvement. The wheels have wooden rims, and for tire on the regular mounts an endless inner tube tire has been chosen, one which gave great satisfaction in 1894, and which, as improved for the present year, should give still greater. The lady's wheel, with loop frame, is made of identical standard with the man's wheel.