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REMOVAL.

The SCIENTIFIC AMERICAN Office is now located at 361 Broadway, cor. Franklin St.

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(Illustrated articles are marked with an asterisk.)

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AMERICAN CHAINS.

A writer in the American Agriculturist of May complains that his trace chains break, although he purchases at the best agricultural warehouses, and buys the best chains he can find.

The best logging and trace chains are made by hand, each link being formed and welded on the horn of the anvil. They have been made so here for generations, and as the method is the same in foreign countries, and as good iron can be obtained here as there, no sufficient reason exists why American chains are or cannot be as good as others.

A hand welded chain of tough iron is no better for having come across the ocean. It is possible there is an inferior article of home make which this correspondent purchased; there is little actual value in cheap jewelry. Small, unwelded chains are made by machinery, and some heavy log chains and farm trace chains are called "machine made," the links being bent by machines, and the welds being made by belt drops.

Some of the largest dealers in logging and farm chains in the eastern country state that they have few complaints of breakages of American made chains; they have far more from those of foreign make. The principal fault found with the home made chain is in the attempt to weld by machine drop instead of by hand, the machine weld showing a good surface from the die but not being reliable.

Sometimes too much work is exacted from a chain; when iron is bent and welded, it is not responsible for more tensile strength than one-fourth of that of the rod when tested in a straight line. The fact is, American made chains are fully equal to those imported; and in many other productions of the hardy metals the American manufacturers lead the foreign producers.

Odd Coincidences.

In a recent issue of this paper we copied from Professor Richard Proctor's weekly publication Knowledge an item or two from the editor's strange experience and observation, related in serial numbers in his paper under the above heading.

In the last issue of Knowledge the distinguished editor and astronomer tells the vicissitudes he recently experienced in going from Knowle to Birmingham, and other incidents which have happened to him en route to the latter place. After reading the story as related by Mr. Proctor as follows, some persons on this side of the water might conclude that "heedlessness" would be a more appropriate heading than "odd coincidences," but the title the Professor chooses does not detract from his interesting account of his three journeys to Birmingham. He says:

If I believed in luck I might regard journeys in to Birmingham as unlucky for me. It may be remembered that a few months ago I described how oddly I was removed from my proper carriage and put into one not going to Birmingham. I was all right and alone; two passengers got into a wrong carriage; a second-class passenger was put into mine (first-class) because of a loose coupling; and at the next station a nervous station master, wired to about the two wrongly placed passengers, rushes to the wrong carriage, asks if we are for Birmingham instead of some other place, as he intended, and receiving "Yes" for reply, bundles us—the wrong passengers—into the carriage for that other place—so that I get to Birmingham much later than I intended, and my companion, who had a special appointment there, finds it useless to go there at all, and returns home.

Well, last week running into Birmingham from Knowle, I narrowly escaped "a real misfortune" as Mrs. Brown would say. I put down the bag containing the pictures for my lecture (the train was only to reach Birmingham five minutes before the lecture hour); go across a bridge to send off a telegram, and returning, enter train without my bag. I had not made such a mistake since February 3, 1881, when I let a train run out from Sacramento, Cal., with my lecture pictures. That time I was saved from shame and disaster by a rainstorm so violent that my lecture had to be postponed; and by next day kind friends in the eastward-bound train had sent back my pictures. This time, kind friends (one of them the same as in my Sacramento trouble) wired for my bag, and eventually it was brought in to me at the Birmingham Town Hall, just as I had got through the introductory part of my lecture.

This was rather an odd coincidence, but this was not the end of these Birmingham-nearing sorrows. A few days later I am leaving Coventry for Birmingham, meeting my wife (from London) at the former station. "I will be careful," I remark to myself, "that no mistake of mine causes me any trouble." Vain hope! I see my heavier luggage labeled. On the arrival of the London train a lady and gentleman get out from the carriage in which my wife is sitting. They claim their smaller luggage, and my porter puts my precious lecture bag on a seat. I turn to put my umbrella in the rack, or perchance to salute my wife. "There was our error, boys," as old Belarius says. "Oh, you mistook; you should have seized your bag" (as Milton

does not say), I might have said to myself. But, unconscious of disaster, I begin to inquire about the little ones at home. In the midst of these domestic cares suddenly I miss my bag. You guess what had happened? A wretched porter, sent back by my wife's fellow travelers to see that nothing was left, had opened the door the instant my back was turned, and had seized my bag as his lawful prey!

We wired from Stetchford and anon from Birmingham. Reply comes, "All luggage put out at Coventry claimed by Mr. B., of So-and-So Park." More urgent telegrams bring us news that So-and-So Park is seven miles from station. How again the same good friend (and somewhat more) who at Sacramento had sent back my bag, and at Knowle had helped to restore it to me, had to go to Coventry, while I lectured (minus some of my best pictures) at Birmingham; how Mr. B. had seen nothing of the bag; but how it turned up eventually along with his luggage, which had been sent unsorted to a lumber room at the top of the house, need not be told. The triple coincidence was complete, and I may hope to have no more trouble of the kind when nearing Birmingham. But I can understand how some folk get to imagine that particular places are unlucky to them.

Manufacturing and Mechanical Industries.

The numerous illustrated articles on manufacturing establishments, which have embellished the front page of this paper at intervals for some time past, have proved an acceptable feature to the home patron, and of special interest to the reader abroad.

The engravings of the various industrial works which have appeared in these columns are executed from sketches made on the premises by skilled artists, who have been connected with this paper for a long time—men selected for their mechanical knowledge as well as artistic attainments, the former acquirement being as necessary to insure good results in our class of work as the latter. This fact explains why the wood cuts in the SCIENTIFIC AMERICAN illustrate subjects so clearly as to enable the reader to form a pretty correct idea of the works represented, and with the description to gain a good understanding of the details of the manufacture.

Nearly one hundred manufacturing establishments, representing nearly as many different industries, have been pictured and described in these columns. In this series are illustrations of almost every kind of manufacturing and mechanical industry, and to most persons this class of subjects is both interesting and instructive. It is the desire of the publishers of this paper (seconded by the wishes of the readers) that the publication of manufacturing and machine making establishments be continued until every industry in this country shall have been represented in these columns.

To this end, managers of manufacturing establishments, engineering works, implement or other industrial enterprises, whose works have not been already illustrated in these columns, are invited to correspond with the editors of this paper.

Since moving to our large and more eligible offices, 361 Broadway, our facilities for executing orders for wood engravings are greatly increased, and manufacturers of all kinds of wood and metal working machinery and implements can have wood cuts of their productions executed in the best manner at the office of this paper, and if the machines possess novelty and utility over other machines in the same line or class, the editors will give place for their publication in the SCIENTIFIC AMERICAN. Patentees of useful and novel contrivances can have them illustrated and described in these columns, but it must be understood that neither old inventions nor poor cuts illustrative of new inventions can be admitted to these pages. It is only useful and interesting subjects represented by good wood cuts that are admissible.

A Law to Compel the Adoption of Improved Car Couplers.

By an act of the Legislature of Massachusetts, approved May 8, 1884, all new freight cars owned by railroad companies in that State, after March 1, 1885, are to be equipped with automatic or other safety couplers, approved by the Board of Railroad Commissioners, after examination and test thereof.

The commissioners will, on the 25th of September next, hear at their office, No. 20 Beacon Street, Boston, all parties desiring to set forth the merits of any safety coupler, and also any criticisms thereof by experts, and they will witness tests of such devices to be made in or near the city of Boston. The hearing will begin at 10 o'clock A.M. Records of the working of safety couplers in actual use for traffic are especially desirable.

Grape Seed Oil.

Grape seed oil is (according to the Corps Gras Industriels) used in Italy for purposes of illumination. The extraction is principally effected at Modena. It has also long been used for similar purposes in Germany and the Levant. Thirty-three pounds of seed yield about 13 quarts of oil (or about 18 per cent). The seeds of white grapes yield less oil than those of the dark variety, and young vines are said to be more fruitful in this respect than older ones. As to the French varieties, the Rossillar, Aube, and Herault seeds yield 2 per cent more than Bordeaux seeds. The color is a golden yellow, and the oil loses about 25 per cent in purification.