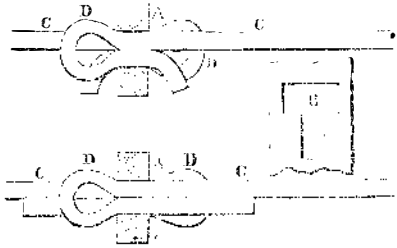


upon which the horizontal strain is exerted, is nearly quite sufficient for such expansion or contraction. The screw buckles are of more essential service in putting up the fence and equalizing the strain upon the posts when put up.

The posts, rails, &c., are all prepared by machinery, and may be made of any size, shape, and material packed up into fagots for easy handling and transportation, and can be set up by any person who has the least skill in fence making. The posts are usually set about 16 inches into the ground, and made

FIG. 2.



tight in their places by ramming gravel or stone alongside. The claim is for the construction of the loops and mortises, so as to obviate the use of keys, wedges, double posts, &c. The improvement is certainly a most excellent one in wire fences, one that offers superior advantages to any other. For farmers it is certainly an important improvement. The wire used for the rails is a quarter of an inch in diameter—smaller is not recommended, as cattle are not liable to notice a smaller size. The posts are planted about 12 feet apart, and the height is about 4½ feet. A fence of five rails, including iron posts, screws, &c., costs \$1.50 per rod.

More information about the purchase of fence, patent rights, &c., may be obtained by letter, or by calling at the office, 312 Broadway, New York.

## MISCELLANEOUS.

### Inventors' Rights.

When a patentee pursues any person, and is opposed, he generally makes a strong appeal to the persecutions endured by such men as Evans, Fulton, &c., and sets himself up alongside of them as a martyr to the spirit of the age. But at the present day, such men act generally as did the persecutors of Fulton, &c., and endeavor to destroy the character and injure the rights of other inventors. Who can honestly deny that Fulton made a great improvement, in adopting and skillfully applying side wheels to steam navigation? The old first patent of Jonathan Hulls, dated 1736, for the application of steam to navigation, was a prior invention to either the plans of Rumsey, Fitch, Stevens, or Fulton,—our American inventors,—but it was an inefficient although not impracticable plan, and yet there are men who entertain opinions, and patentees who are supported in them by courts, that any prior invention in a certain line subordinates all rights of subsequent inventors to their own inventions in the same line, although the inventions are quite different. Some patentees act on the principle that the first improver alone has rights, and all others must be subject to them. Woodworth was only an improver, and yet the assignees of his patent have acted and brought actions against subsequent improvers, thus showing that they, the assignees, have done what they would blame Bentham for doing, had Bentham been an American and owned a patent right upon the principle claimed by some for inventions, viz., the same right as in private property. I hold to the doctrine that every patentee has a certain right to his improvement, and if it is not similar to the improvement claimed by another patentee, he alone has a right to use it. The question of infringement or non-infringement should always be decided by a Jury. Can a judge know as much about mechanical combinations and principles as a jury selected to hear and decide upon the testimony of experts? It would be a most extraordinary thing if he did, for out of twelve American jurymen there are always more than one practically acquainted with the subject in litigation.

It has occurred more than once, that three

and four persons have made applications about the same time for patents for a like invention. Two years ago a case of this kind was mentioned in the Commissioner of Patents' Report; the one who proved himself to have first invented the improvement received the patent, and, by law, he was entitled to it, although he was the first only by a few weeks. Each applicant was a *bona fide* improver, and by *natural law*, had a perfect right to make, use, and sell his own invention. The patent law stopped them from using their own inventions. Now this appears hard; perhaps the one who was only a few days behind the fortunate patentee, expended the most time, labor, and money in maturing his invention. Many cases of this kind have occurred, and so will many more. One inventor patentee should, therefore, have a merciful spirit towards a brother inventor, when he is an honest one. There are patent pirates, however, men who, with money, care not for the rights of any patentee, but would violate them with a light conscience, were it not for fear of the law. There are some men, too, who laugh at patents (but these men are becoming less plenty in our midst), and think they are not much protection after all. Such men should be made to feel the lash of the law; and I must say that I have known a number of such characters, but not one who did not suffer for the same by a just Providence, in some part of his life. In forming an opinion on the rights of two inventors, and the rights of a patentee and a non-inventor, no general rule can be followed; every single case must be considered on its own merits; and every one should be thus considered so as to render justice to each party. JUNIUS REDIVIVUS.

### Fish for Food.

The April number of Hunt's Merchant's Magazine contains an excellent article on the "Fisheries of the United States," from which we select the following extract, on the use of fish for food:—

More fish must be eaten in our own country. We are growing fast, and with the rapid multiplication of mouths, additional substance will be needed to fill them. More fish should be called for, by the new mouths, as well as more beef, corn, and potatoes. But apart from the prospect of increased numbers, the market at home is not as large, with the present population and present circumstances, as it should be. The class to which we will allude are laborers in our cities and towns. These people are great consumers of meat, principally beef, and generally fancy that such substantial food is necessary to sustain men at their hard labor. But the idea is fallacious. Continual use of stimulating food is injurious to the system, and especially in the summer season, when meat is, in any state, not particularly wholesome, and when animals are known to be peculiarly liable to humor and disease. It is not to be wondered at that where flesh is a considerable article of food, at this season, those malignant diseases, called summer complaints, should be especially prevalent.—Light food is required in warm weather, and if men do not in that season force themselves to the use of stimulating viands, they will easily adapt themselves to light substances. But it is certain their health will be better at all seasons by varying their diet, substituting partially a weaker food for the uniformly strong to which they are now so devoted. And by usage, nature will be just as well satisfied in this way as the other. A great number of laboring men, of course, will deny the correctness of our argument, but there is a class, and a large class too, who cannot fail to acknowledge its validity. We refer to the adopted citizens, natives of Ireland, England, France, Germany, &c., men who are now among the most inveterate beef-eaters of the country, but who, in the old countries, were necessitated to a much weaker diet; and who can remember that when meat was a rarity to them, they were just as well able as now, provided they have other food, to sustain hard labor. There are other reasons to recommend the course we propose; that is a vicious taste which continually craves one kind of food. Taste is only properly cultivated by the use of a variety of kinds, and the pleasure arising from a taste thus exercised is much greater than that resulting from one

perpetual stimulus. The change is again recommended by economy. Meat is already a dear article of food, and with the present rate of increase in population, and a continuance of the present beef-consuming rage, the cost must be more and more enhanced; the certain tendency of this circumstance is a continual depression of the working population, of which they must be as sensible as any. The remedy, of course, is in that substitution, partial or entire, which must eventually happen of sheer necessity, if choice is delayed, of some other food. We hope, with the spread of intelligence, so rapidly increasing, to see our mechanics, artisans, and laborers generally, correcting the abuses in their modes of living which they have so long been subject to, and advice on which they have so long disregarded. In the case of their food, we would recommend to them all the use of fish in lieu of at least half of their meat. Good qualities of dried or pickled fish, properly prepared, with the accompaniments of the ordinary dinner vegetables, will not, we venture to say, be long liable to the charge of unsavoriness, or deficiency of nutritive power. For breakfast, too, a broiled fish is at any time better adapted than a beef-steak, however tender, and however pressing the invitations it conveys through the olfactories; and for tea, a stripped dried pollock is in all respects preferable to the daintiest bits of smoked-beef.

[While our mackerel stands out as an unrivalled fish, it has always appeared to us, that with the ingenuity of our Eastern people, they are far behind in the preparation of fish of various kinds for the market. Foreign sardines sell for 50 cents per box by retail, and any working man could eat a whole box rull with but little trouble; yet a great quantity of them are used by our wealthy classes because they are so well prepared. When have we prepared herring like the Dutch, or haddocks like those from the Shetland Isles. A beefsteak is poor stuff in comparison with one of those haddocks for breakfast. Our fishermen should pay more attention to the preparation of various kinds of fish.

### Steam Applied to Organs.

We have thought more than once that it would be a great saving to Italian flesh, if five or six of our street organ grinders would club together, get a large organ, fix it in a carriage, and drive it with a small steam engine. Mr. David, a French gentleman in this city, proposes to apply the steam engine for operating church organs. In a recent lecture on the influence of music he said:—

"It is not in the destiny of industry that the products of the mind or of genius remain in a small number of hands. On the contrary, it will appear that the 'chefs d'œuvre' of mind and of genius can be within reach of the greater part of mankind, that is to say, within reach as well of the poor as of the rich. This is its mission; this is its philosophical purpose.

To attain this commendable purpose, I think I have discovered a contrivance for moving church organs without the aid of either an organist or bellows blower, but by means of a steam engine, which would be also available for other useful purposes; I apply my processes at once to the music of churches, and to the music of the drawing room.

The same steam engine which gives motion to the organ, heats the church, heats the primary schools, heats the minister's house, rings the bell which invites the parishioners to the divine service, as well as giving the alarm in case of fire. This system can be applied only in the churches which are built in the style of American churches. I speak of the churches which are constructed with high basements where are established the primary schools, and where the minister's house is connected with or contiguous to the church. The architectural style used generally in Methodist churches is very convenient for the application of my system.

I intend to propose to the Ocean Steamer Companies a system of mechanical organs on board of their steamers. These organs would furnish during the whole voyage, the passengers who were victims of sea-sickness, or a prey to pain or melancholy, on account of eternal or momentary separation from a

mother, wife, or bride, selected pieces of theatrical music for six days in the week, and on the Sabbath suitable music for religious services."

Mr. David is a philanthropist; music by steam power for the million, is a new idea, and we hope to see it carried out in its broadest extent. Mr. Bain took out a patent in England, a few years ago, for performing on instruments at a distance by electro-magnetism. A performer by his plan might set cosily in his parlor, and give music to a wondering congregation in Yorkminster Abbey. Mr. David's plan, however, is more diversified, and he may yet extend it to a steam choir—one which would bid defiance to the winds or the weather, in pitching the key note.

### To Remove Incrustations in Steam Boilers.

This a subject of great interest, especially for steamships, and for boilers which are supplied with what is termed "hard water." A great number of patents have been taken out in Europe, and in our own country, to remove and prevent incrustations. There seems to be some defect in all previous inventions, or why should new patents be taken out if the old ones were perfect in accomplishing the purpose intended? As this is an important subject, we like to present all the information we can upon it; knowing how many engineers and owners of steam engines are among our subscribers. The following is the specification of a patent recently granted to John Ashworth, of Bristol England, for which we are indebted to our worthy cotemporary, Newton's London Repertory of Inventions.

The improved method of preventing and removing incrustation, which constitutes this invention, is applicable to the boilers of stationary, locomotive, or marine steam engines, and to all other steam generators liable to internal incrustation. The improvement consists in the use of a compound for preventing the lime or any other substance which the water may contain in solution (when fresh water is employed), or the saline compound such as sulphite of magnesia, chloride of sodium, &c., (in marine boilers), from forming an insoluble incrustation and adhering to the interior of the boiler, and for loosening and removing such incrustation when already formed.

The ingredients used in the preparation of the compound or mixture are coal-tar, linseed-water, plumbago or black-lead, and Castile soap. The compound is prepared by taking 33 gallons of coal tar, 21 gallons of linseed-water (prepared by boiling in water 14 lbs. of linseed, and straining or removing the seeds and other extraneous matter), 5 lbs. of plumbago or black-lead, in a pulverized state, and 8 lbs. of Castile soap, and stirring the whole well together, so as to intimately combine the same, and produce a compound of creamy consistence. Although these are the ingredients and proportions which are preferred, yet they are capable of slight modification: for instance, common soft or brown soap may be substituted for the Castile soap; or the exact proportions may be slightly varied, without materially affecting the action of the compound. The mixture or compound is introduced into the water in the boiler (after blowing off the steam), through the man-hole or other suitable inlet, in the proportion of about one gallon, twice a week, for a thirty horse-power boiler;—the quantity being increased or diminished according to the capacity of the boiler, and the average amount of incrustating material contained by the water used therein. It is stated, that the effect of this compound upon a new boiler is to prevent any serious amount of incrustation upon the interior of the boiler; as the little deposit which occurs is of a thin, brittle, porous, and crumbling nature, and can be readily removed from the bottom of the boiler (on to which it falls) by sweeping or otherwise. In old incrustated boilers, the action of the compound upon the incrustation will, in a short time, loosen and remove the same.

The food necessary to sustain animal life has to perform, among other functions, that of developing, by its combustion in the lungs, a certain quantity of heat. The colder the surrounding atmosphere, the more is expended for that purpose.