

who would rather pay one dollar than twenty-five cents, so as to view the whole vessel in quietness, without being crowded; but the mass of the people cannot do it; the above-proposed adjustment of charges, therefore, would accommodate all parties and none would have cause of complaint.

The *Great Eastern* lies at the foot of Hammond-street, North river. Strangers who come to visit her should take the Eighth-avenue cars from the lower part of the city, or the Ninth-avenue cars from Canal-street. On approaching this vessel at her dock, her great size effects the mind with surprise and wonder. She is a floating mountain of iron, and no work of ancient or modern times can be compared to her, for exhibiting the ingenuity and power of man over the elements of nature. The scene from her lofty deck is grand and exhilarating. About fifteen hundred persons have daily visited her since she was opened, but more may yet be expected. Her paddle wheel engines are the chief objects of attraction; they are splendid specimens of engineering skill and ingenuity. The screw engines are *squat*, and make but an indifferent show, but they are also good examples of mechanism. The engineers have been enthusiastic in their praises to us, regarding the ease with which the engines can be handled.

The bottom of the *Great Eastern* is somewhat foul with adhering sea-weed and barnacles; and but for this, it is said she would have sailed about two knots per hour faster, in which case she would have made the passage across the Atlantic Ocean in less than ten days. A French inventor made several experiments with a machine to clean her bottom while lying at Southampton, but he did little or no good whatever. It has been proposed to take her upon two of our large sectional docks joined end to end, and we think this could be effected. It is not merely cleaning but also painting that she requires below the water-line, and for this purpose she must be raised "high and dry." A large dock, capable of holding her, is now building at Birkenhead, England, and it is expected it will be ready soon after she returns. It is not yet decided how long she will remain here; we will give notice of this to our readers in due season.

THE RIGHTS OF JOINT PATENTEES.

We are often inquired of, in relation to the rights of joint patentees or joint assignees as amongst themselves. This is a question which is attended with no little difficulty, and for which it is impossible to give a satisfactory and complete solution. We shall endeavor, at least, to throw some light upon the subject.

When several persons respectively hold joint fractional interests in an entire patent, either as patentees or assignees, or partly of each of those classes, in what capacity do they hold those interests? Not as patentees, unless by some special agreement to do so. They cannot be made responsible for each other's acts. They cannot claim to act for each other. They cannot be compelled to act together for any purpose. Their interests are held in severalty. Their relations towards each other are analogous to those of tenants in common of real estate. Each may use the common property. Neither of them can prevent his co-proprietors from doing the same. (See *Hindmarch on Patents*, 68.)

Where there is no rule of reason or of law to the contrary, a person may confer upon another the right of doing whatever he might do by himself. In other words, as a general rule, he may alienate any interest he himself possesses. An owner of a fractional interest in a patent may therefore not only make, use and sell the thing patented, himself, but he may give a license to another person to do the same thing. Whether he may carry this privilege to any extent he pleases, and, if not, how he is to be restrained from going too far, are questions we shall not attempt to answer at present. We are only dealing now with the general rule and shall not discuss the exceptions.

But as no one of the joint owners can exclude his co-owners from the rights held under the patent, so neither can he grant an exclusive right to another person; as that would infringe upon the rights of his co-owners and would be effecting indirectly what he could not do directly.

But an exclusive grant of that nature would not be wholly void. It would only be so in those particulars in which the powers of the grantor had been exceeded. The grantee would not be liable to prosecution as an infringer, but he could not prevent the other co-proprietors

of the patent, or their assignees or licensees, from making, using, or vending to others to be used, the thing which was the subject-matter of the patent.

Another question sometimes asked is as to the rights and remedies of the several proprietors of a patent in cases of infringement by third persons. It was held in the case of *Whittemore vs. Cutter* (1 Gallison, 429, 431) that an action for infringement may be maintained by all the parties, who, at the time of the infringement, are the holders of the whole title and interest. But suppose some of them should refuse to join in such an action, how are the others to obtain a remedy?

We cannot find that this question has even been judicially settled. In *Hindmarch on Patents* (252) it is stated that "it has never been decided whether one of several patentees, or an assignee of a portion of a patent privilege, can sue alone for the damages which he has sustained by the infringement of the patent. There does not seem to be any good reason why such a proprietor should not be able to sue alone, although the language of the court of King's Bench, in a somewhat similar case (*Weller vs. Baker*, 2 Wilson, 423) seems to be an authority to the contrary." It appears somewhat singular that questions of this nature should not long since have been fully settled by the courts, not only of Great Britain but also of this country. Such, however, we believe to be the fact.

It was decided by the Supreme Court of the United States, in the case of *Tyler and others vs. Tuel* (6 Cranch, 324), that an assignee of a part of a patent right cannot maintain an action on the case for a violation of the patent, but this referred to a case where the fractional interest was determined by geographical lines. The assignee had not a fractional interest in the whole United States, but an entire interest in a portion of the United States, which has elsewhere been held to make an essential difference. The rule as to the disability of a grantee of an exclusive right in a fractional portion of the United States to bring suit is now changed (see Act of 1836, 314, and *Wilson vs. Rousseau*, 4 Howard, 686); but for the reason above given this has nothing to do with the question we have been considering.

It will be readily perceived that there are many difficult and perplexing questions which may grow out of the relation of the joint proprietorship in this kind of property, all of which require great caution on the part of those who are about entering into such relations.

JONES' BURNER FOR COAL-OIL LAMPS.

The accompanying illustrations represent an improvement in the burners of coal-oil lamps, for which a patent was granted to Edward F. Jones, of Boston, Mass., May 4, 1858, and it is believed that many persons are infringing it without being really aware of their liability.

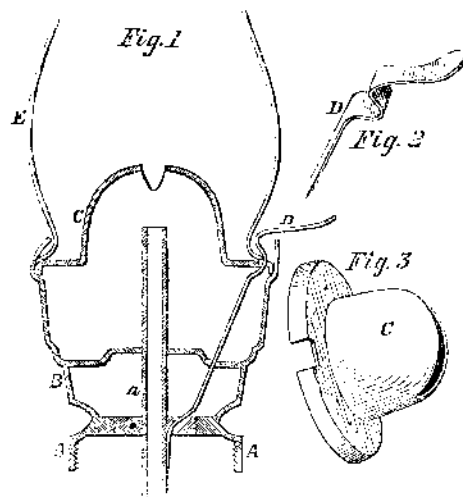


Fig. 1 is a vertical section of the entire burner; Fig. 2 is a view of the chimney spring-catch, and Fig. 3, a perspective of the cone cap. A is the screw ring which is fastened to the top of the lamp; B is the wick tube and cap socket which screws into the ring in the usual manner; C is the conical deflector which is detached, has a notch in its side, and fits into the top of the socket as shown; D is a spring which is soldered at one end to the wick tube, a, thence passes up into the notch of the detached deflector and holds it in place. This spring also holds the chimney, E, in position, so that it fulfills two offices, and a screw is not required for the purpose.

The upper sides of the socket, B, and the bottom of the deflector cap, C, are perforated in the usual manner, for the air to pass through and upwards to supply the flame with oxygen. These devices and their combinations will be perfectly understood from the description given. The improvement affords a more convenient and simple arrangement than the common screw fastening for the chimney and fixed deflector.

The patent embraces two claims. It was first issued May 4, 1858, and the claims appeared on page 282 Vol. XIII (old series) *SCIENTIFIC AMERICAN*; then re-issued Jan. 11, 1859, and published on page 159, Vol. XIV of the same journal.

More information may be obtained by letter addressed to E. F. Jones, Nos. 35 and 37 Central-street, Boston, Mass.

RECENT AMERICAN INVENTIONS.

SAWING MACHINE.

This invention is an improvement in machinery for sawing out and tonguing and grooving stuff for packing boxes. It consists in the employment of a vibrating circular saw-frame, that is controlled by the operator, with a feed pressure roller for the purpose of feeding the stuff along until it abuts against a gage head, when the feed action is stopped, and the saw in the frame brought up so as to cut the board into pieces of any desirable length to be determined by the gage head; the saw and feed roller are operated by belts that receive motion from a common shaft, so that neither the motion of the saw nor that of the feed roller will be stopped while the main shaft is in motion. Combined with the table upon which the stuff is sawed up in lengths is arranged a movable gage board for jointing or cutting the boards that have passed through the first operation, to any desirable width in circles, and also a tonguing and grooving cutter, so that the three operations may be performed on one and the same table. The credit of this contrivance is due to Timothy Drake, of Windsor, Conn. III.

COTTON BALE TIE.

The demand for non-combustible metal hoops in place of combustible rope to bind cotton bales, having of late become very great, numerous devices for locking the hoops have been contrived. The one now before us is certainly an exceedingly simple and effective one. It consists simply of a flat plate with a slot cut obliquely through it near one end. The two ends of the hoop are slipped through the slot, and the tie plate is turned a certain distance. Thus turning the plate bends the ends of the hoop so that a shoulder is formed. This shoulder and the outward pressure of the cotton renders impossible the unlocking of the hoop except by the application of a pair of pincers to the same. The patentees of this invention are Z. W. and E. D. Lee, of Blakeley, Ga.

ROCK DRILL.

This invention has for its object the operating of a plurality of drills simultaneously by the rotating of a single shaft, and is more especially designed for operations on a large scale, as in mining and quarrying, where a series of holes are required to be drilled in a right line for the purpose of detaching large masses of rock in line, or co-incident with their cleavage or seams. The invention consists in the use of two clamp-bars connected by joints to boxes placed on conical or taper guide bars and connected to a rising and falling arm whereby the desired end is obtained. This improvement was designed by Francis Schwalm, of Joliet,

PRINTING PRESS.

J. A. Smith, of Fond du Lac, Wis., and Isaac Orvis, of Oakfield, Wis. (administrator of the estate of L. M. Orvis, deceased), have obtained a patent for an improved press, designed for printing from a continuous roll of paper, and possessing automatic mechanism for feeding the paper to the forms, and for printing both sides of the paper during one passage through the press, and cutting it into sheets of proper length; the paper being also moistened or sponged during the operation of printing. The claims for this ingenious invention were published in our last number.

BRIDGE.

This invention consists in a certain construction of a bridge of cast and wrought iron and wire rope, whereby the truss and suspension principles are combined in an advantageous manner, and a bridge of great strength and stiffness is obtained with extreme lightness. The credit of this contrivance is due to J. P. Fisher, of Rochester, N. Y., and the claims were published in our last number.