



For the Scientific American.

### Patent Laws.—Action of the Patent Office.—Appeals.

In my last on page 294, I cited a claim to prove that the Patent Office had granted a patent for the mere application of a well known article to a purpose for which (perhaps) it had never been used before, and I stated that the Patent Office had rejected many applications of the same nature, upon the ground that no patent could be granted for the mere application of an article. I could produce the names of various individuals who stand in the last catalogue. But there is no necessity for doing this—the fact of such action is known to all who have had any business to transact with the Patent Office. In view of this fact the question arises “how are we to account for such anomalous action?” The writer of this cannot point to this or that favorite suitor and he therefore only points to public testimony. The late decision of Judge Cranch in reference to the contested decision of the Patent Office in the Telegraph case, shows plainly, either a want of correct judgment in the Patent Office or something not so creditable, for it is evident to the most common understanding, that the claims of each (since published) are widely different. Inventors in justice to themselves, require some information upon “what is the subject of a patent, and what is not,” and the Patent Office in justice to itself, should publish a schedule of the objects or inventions that are patentable. No person can object to a refusal of a patent for a thing that has been in common use, or is clearly embraced in a patent already granted, or has been described in any work in the name of another author than the applicant. All these reasons for the rejection of a patent will be perfectly satisfactory to the applicant. The course of the Patent Office in examining applications, and rejecting them upon the ground just stated, has been the means of doing much good both to inventors and the public. While we admit this and many other excellent things and conduct of the officers of the Patent Office, we as firmly believe that much evil has been done to many by wrong decisions of “want of novelty,” &c. The public, we believe, has been deprived of the benefit of many good things because the Patent Office refused the discoverer protection upon too hasty a decision. Inventors have the privilege of appealing from the adverse decision of the Commissioner of Patents to the decision of the Chief Justice of the United States Court for the District of Columbia. Many may think that this is remedy enough, but it would just be as easy for a poor inventor to get justice in this way, as it would for him to stop a Mississippi crevasse with a teaspoon. In the first place, the appellant must dump down \$25, and in the next he must employ an attorney to manage the business in Washington. The cost to him would not be less than from \$50 to \$100, and if it is an intricate case, it will cost far more than this. And suppose the appellant does gain the point of appeal, not a penny is returned to him. The whole of the expenses whether the decision of the judge is favorable or otherwise, must be paid by the appellant. This is certainly anything but a just law. If the decision is favorable, the expense of the appeal at least should be paid by those who lost the case. In no other part of our judicial statutes, is there such an unjust clause. The vanquished Curatio in every other Court, but our Patent Appeal Court, must relinquish his armor to the victorious Horatio. Such a law is neither founded in justice nor common sense. The salient advantages of evidence to defeat an appellant are all on the side of the Patent Office too. The old Board of Examiners as provided for by the 7th section of the Act of 1836, which required one member at least to be skilful in Art, was abolished in 1839 and a law made which authorised the Commissioner to make all such regulations in taking evidence in contested cases as may be

just and reasonable. This law was got up in Mr. Ellsworth's time, under the influence, it is said, of some of the Examiners of that period, because the old Board of Appeal Examiners had reversed more decisions than was consistent with the exalted feeling of the Patent Examiners. It would be well for Inventors, if this act was repealed—the old one was much better, and in every case it would be no more than a simple act of justice to return the appeal fee to the inventor who substantiates his right to the patent. A difference of opinion in respect to the claims of an applicant, its infringement upon an existing patent or its similarity to an old invention is something that requires both a critical judgment and much knowledge. That there should be differences of opinion both in the Patent Office and among inventors, is nothing strange, and we must expect such things to take place frequently. When we know that legal tribunals of the highest character, counsel of the most eminent qualifications, and witnesses of undoubted skill and practical knowledge have been sometimes nonplussed in arriving at right conclusions respecting alleged identity in the principle of two inventions, we need not but expect some difficulty in the pathway of inventors in alleged interferences. The other path, however, is perfectly plain to us, viz. the applications and usefulness of objects as being legal subjects of patent protection, where there is no alleged interference. To the discussion of this question we will devote our next article.

JUNIUS REDIVIVUS.

### The Striped Bug.

We find in the Vermont Agriculturist the following, recommended as a sovereign remedy for that pest of the melon vines—the striped bug. “Take half a peck of manure from the hen-roost, put it in an old tub or box, and add four gallons of water. In twenty-four hours, by stirring it two or three times, it will be ready for use. Put half a pint of this liquid upon a hill of melons or squashes, and the striped bugs will certainly vanish. At least we have found it so on repeated trials, for several successive seasons. The bugs may not every one vanish on the first trial; and they may re-appear; but we have never had a vine injured after this application. Besides protecting the vines, this liquid is the best of manure, and the application may be frequently repeated, wetting the leaves if a stray bug or two should linger on them, without apprehending any harm. The manure tub will bear to be filled up several times with fresh water.

### Marking Sheep.

An agriculturist says, “I wish to impress it upon every one who keeps a flock, if not more than half a dozen, that Venetian red is the best thing I ever saw used to paint mark sheep. It is as most all know, a cheap red paint, only a few cents a pound, and one pound will mark a thousand. Take a pinch of dry powder, and draw the thumb and finger through the wool upon the particular spot you will mark, loosening the powder at the same time, and it will combine with the oil in the wool, and make a bright red mark that rains will never wash out, and which will endure from one shearing to another, but does not injure the wool. It is readily cleansed out by the manufacturer.

### The Curculio.

A correspondent of the Genesee Farmer, writing from New Haven, says:—“Last spring I tried another remedy which I had seen recommended; with a half inch augur I bored about two-thirds through the tree, and filled the hole with sulphur, covering it with a plaster grafting wax. This is better than plugging, as the sulphur then comes in contact with the sap. Now for the result; the year before not a plum ripened, but last fall the tree was literally loaded with fine fair fruit. I state the simple facts; others may draw their inferences.”

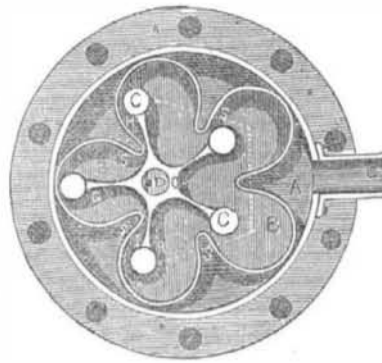
### To Preserve Flowers.

Ladies who wish to preserve flowers are recommended to try nitrate of soda. As much as can be held between the thumb and finger placed in the water with flowers, will preserve their freshness and beauty, it is said, for a fortnight.

### History of the Rotary Engine.

Prepared expressly for the Scientific American.

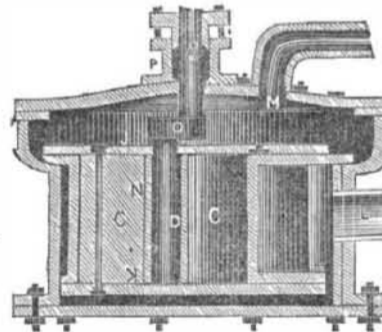
FIG. 64.



GALLOWAY'S ROTARY ENGINE.

This engine is the latest improvement of Elijah Galloway, the most famous inventor of rotaries, and author of a history of the steam engine, to which many additions have been made by Luke Hebert. Fig. 1 is a plan view of the engine with its top removed; fig 2. is a sectional elevation. The same letters refer to like parts; A A, is the cylindrical or outer casing, flanged and bolted together; B B, the receiver or polygonal chamber, having concentric compartments in which the projecting arms of the piston work; C, C, C, roller heads attached to the ends of the arms; D, piston-shaft, which passes through the centre piece, by means of a circular hole or passage, of such a diameter that the shaft, inserted therein can receive a motion suitable for adjusting itself to any action of the piston; O, is a crank coupling the two shafts together, D D, allowing the driving shaft to pass through a gland or stuffing box at the top or cover; F is a shifting key, for the purpose of fixing the shaft and admitting of a certain play to the whole of the parts connected with the working portions within the polygonal chamber; J, is the piston cover, which is a flat piece of metal or dish bolted thereto; K, is another plate of the same construction at the bottom of the piston; L, is the ejection, and M, the eduction valves; N, the slot for the adjusting aforesaid; P, the stuffing-box. The only means of setting out the receiver or concealed chamber, B B, is by causing a polygon, indi-

FIG. 65.



cated by the dotted lines in fig. 1, of the annexed engravings, to be formed, and each concentric chamber struck from the angle, R R, and the smaller circles S S, from the same line as seen. The action of the engine will be understood to be as follows:—When steam or other motive power is admitted into the recesses, H and C, and the opposite sides of the piston open to the eduction valve, the pressure on the piston, by the admission of steam into G H, will cause the arms of the piston to move back by the radius of the crank describing such a circle as to have the effect of passing the piston on the opposite side, having by such a movement caused a semi-revolution of the crank, requiring the pressure from such side to complete one entire revolution of the driving-shaft aforesaid. The steam or the motive power first flows in through the pipe seen in the case on the top of the piston, and is prevented from entering the working-cylinder by the covers J K, except at convenient times; for this purpose small holes are made in the plates through which the steam flows when entering the cylinder; there is a circular channel shown in the top cover, but which are, when viewed from the surface, of sufficient size to allow the piston, as it revolves, to discharge the waste steam up to the last, before taking in other such steam, having done its duty through the cylinder passing off into the

outside of the case B, into the space A, and from these into the pipe, B.

### Change of Color in Fish.

John on Sporting, says that the change of color in fish is very remarkable, and takes place with great rapidity. Put a living black-burn trout into a white basin of water, and it becomes within half an hour, of a light color. Keep the fish living in a white jar for some days, and it becomes absolutely white; but put it in a dark-colored or black vessel, and although, on first being placed there, the white colored fish shows most conspicuously on the dark ground, in a quarter of an hour it becomes as dark colored as the bottom of the jar, and consequently difficult to be seen. No doubt this facility of adapting this color to the bottom of the water in which it lives is of the greatest service to the fish in protecting it from its numerous enemies. All anglers must have observed that in every stream the trout are very much of the same color as the gravel or sand on which they live; whether this change of color is a voluntary or involuntary act on the part of the fish, I leave it for the scientific to determine.

### Sleep for Plants.

Mr. Lindly, a celebrated London professor, says “there is not a single gardener who is master of his profession, who does not know how injurious a high nocturnal temperature is to plants. The coolness of the night is to plants, what sleep is to animals. This law may to some extent be violated for a time, but the plants cannot, under the penalty of loss of life, be deprived of their natural and proper period of repose.”

### The Weather.

Dr. Forster of Bruges, who is well known as a meteorologist, declares that by the journal of the weather kept by his grandfather, father, and himself, ever since 1767 to the present time, whenever the new moon has fallen on a Saturday, the following 20 days have been wet and windy 17 cases out of 20.

### Leeches.

A French medical writer states, that the practice in the Hotel Dieu, when leeches refuse to suck blood, is to wrap them for a few moments in a linen cloth wrung out of undiluted wine.

### Glass.

At the Polytechnic Institution in London is exhibited one pound of glass, spun by steam into four thousand miles, and woven with silk into beautiful dresses and tapestry.



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