

Correspondents

B. & F., of Me.—A patent was granted in England, in 1824, to W. H. James, for precisely the improvement you describe, viz., placing the drivers on separated axles, each having two cranks at right angles to each other, driven by separate pistons and cylinders. This device was applied to a locomotive for common roads, and this would be a sufficient ground for the refusal of a patent, for the application of the same thing to a railway locomotive, even if it has never been proposed to apply it on railways, which we think doubtful. Some locomotives patented by R. Stephenson, (the great English engineer,) having three cylinders connecting with three cranks on one driving shaft, were tried in England about ten or twelve years ago. The object to be accomplished by this was partly the same as that which you desire to obtain; but the invention was never extensively used.

W. H., of Ill.—It is possible to decompose steam by passing it through red-hot iron tubes. This is not, however, effected entirely by the agency of heat, as heat alone can never effect the decomposition; but the oxygen of the steam is caused to combine with the iron and thus the hydrogen is set free. To effect the decomposition of steam by heat, the pipes must be made of some material having a great affinity for oxygen, which affinity will be increased by heat; or they must contain some material—which must be renewed from time to time—possessing the above characteristics. Many experiments of the kind you describe have been tried, both with a view to the use of the gases as a motive agent, and as fuel, but with not much success. A patent was recently granted for an apparatus for decomposing the exhaust steam from an engine in the furnace, and burning up the gases. We cannot say that your idea of decomposing the steam in the tubes, and keeping the tubes heated by their combustion, has been fully anticipated, but we do not regard it as having the slightest approach to practicality.

E. C. M., of —Your theory regarding the spots on the sun being huge chunks of planets, broken by collisions, and precipitated on the disk of the great luminary of day, is certainly new, but we fail to gain from it any more light on these spots. Your opinion that the moon once occupied the position now filled by the Pacific Ocean, and that it was projected from the earth to its present position by a terrific explosion, is also new, and as droll as it is novel. The explosion must have been one of no small magnitude, and Mother Earth must have kicked back considerably after discharging such a respectable sized bullet a distance of 237,000 miles. Talk of the monster cannon of modern days, and Lancaster guns, after such an exploit of ancient gunnery—it's all moonshine.

J. N. T., of Ill.—In answer to your inquiries respecting the "Paine light," you are perfectly correct in your views regarding the general construction of the apparatus by which Paine asserted he could decompose water and resolve it into a single gas, capable of giving a brilliant light, but the whole affair was a complete failure. The apparatus could not decompose water, nor could he obtain a good white light from the gas of the water, even if he had decomposed it in the manner he described. Water had been decomposed long before he professed to have made the discovery, by currents of electricity, generated by revolving helices in the magneto-electric machine; but no useful application can be made of this scientific fact, owing to the great cost at which the hydrogen of the water is thus obtained, and because it has to be carbonized with camphene or naphtha after it is generated, as without carbonization it produces only a dull blue flame.

W. F. W., of Philadelphia.—We are not acquainted with a cement for mending glass that will remain fluid when cold, and be clear and resist the action of heat and moisture when dry. The common diamond cement for glass and china is composed of isinglass soaked in water until it becomes soft, then dissolved in proof spirit, to which a little mastic dissolved in alcohol is added.

G. H. A., of Wis.—You will find a description of the process for manufacturing glue on page 259, Vol. 11, SCIENTIFIC AMERICAN.

S. M., of Del.—We do not know of any one who would take an interest in your invention abroad. Your best course would be to get some one with whom you are acquainted to aid you.

J. A., of Ohio.—Your cornstalk cutter could not be made profitable under foreign patents. Indian corn is not much cultivated in European countries. There is scarcely a stalk of it grown in England or France.

S. C., of N. Y.—We are really at a loss to know what you mean by stating that you are prepared to defend the theory in the article published, viz., "which are the best—plain or ornamental stoves?" You surely do not mean that iron below a red heat will decompose air. That is the only point in question.

A. W., of Me.—We do not see what advantage is to be obtained by the use of a tube 300 or 400 feet long, to conduct the Atlantic cable from the stern of the vessel. A tube that will conduct it into the water, in our opinion, is sufficiently long.

M. C. M., of D. C.—Your communication has been received, and will meet with attention.

J. A. M., of N. Y.—The office of the *Scientific American Journal* is No. 111 Nassau st., this city. It is, as you truly remark, an excellent newspaper.

C. F. A., of Mass.—Stick molasses candy is made by drawing it, while pretty hot, between the hands, until it is quite cool. The drawing, doubling, and twisting of it changes its color, from black to yellow, and renders it more tough. Flour is sometimes intermixed with the mass, but it adds nothing to its quality.

J. C., of Ohio.—To enable us to get up an engraving of your corn planter we shall require a model. The expense will be \$12. We do not print circulars.

W. H., of N. Y.—You can procure a pamphlet containing the copyright law of Baker, Godwin & Co., of this city.

J. M. W., of Oxford.—We do not think there is any chance for a patent on your proposed method of adjusting maps by means of cords and pulleys. Substantially the same thing has been used for this purpose.

Money received at the Scientific American Office on account of Patent Office business, for the week ending Saturday, December 26, 1857:—

M. C., of Mass., \$25; W. H. A., of Ga., \$25; S. L., of L. I., \$30; J. & S. P. P., of N. J., \$30; H. & S., of Ill., \$30; R. H. K., of N. Y., \$30; L. B. S., of Conn., \$30; F. N., of L. I., \$50; W. & S., of Mass., \$30; W. D., of Pa., \$25; G. L. D., of Pa., \$25; H. D. B., of N. Y., \$30; F. L. W., of S. C., \$25; W. R. L., of Conn., \$25; W. G., of N. Y., \$30; L. S. C., of N. Y., \$30; F. C. G., of N. J., \$10; L. C. W., of N. C., \$25; L. L. N., of Mich., \$25; L. E., of Mich., \$75; L. R., of Mass., \$15; B. M., of N. Y., \$15; J. McA., of N. Y., \$40; R. R., of N. Y., \$25.

Specifications and drawings belonging to parties with the following initials have been forwarded to the Patent Office during the week ending Saturday, December 26, 1857:—

B. M., of N. Y.; R. R., of N. Y.; G. L. D., of Pa.; W. D., of Pa.; W. H. A., of Ga.; M. C., of Mass.; J. H. F., of Cal.; W. R. L., of Conn.; F. L. W., of S. C.; L. C. W., of N. C.; J. McA., of N. Y.; L. L. N., of Mich.

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