

\* PERSONS who write to us, expecting replies through this column, and those who may desire to make con-tributions to it of brief interesting facts, must always observe the strict rule, viz., to furnish their nances, otherwise we cannot place confidence in their com-munications. munications

C. R. I., of N. Y .-- Adipocere is human fat combined with ammonia, lime and magnesia. Human bodies turned into stone are called petrifactions, and are to-tally different from adipocere formations.

J. R., of Ohio.-No re-active force can be obtained from a water wheel without pressure from the escaping water. The work to which you refer on "Mill-wrighting" is a crude jumble of sense and nonsense. No less than 88 per cent. of the water power is claimed to be obtained in the Lowell turbines.

O. E., of Mich.-There are several excellent German works of a scientific character which would pay well, we think, if translated into the English language. We are well acquainted with the chemical test for vinegar, but that is not what our correspondent inquired about ; it was an instrument.

R. H. C., of Va .- If you melt tallow and pour it in among cold water, it will spread out into an extended surface, and become white by exposure to the air. Tallow is submitted to pressure in bags to extract the oil before it is made into candles by experienced chandlers. By exposing candles after they are molded to the air, they become much whiter in the color.

O. J., of Wis.-We have given you all the information tion we possess regarding the machinery for operating the drills in the sub-Alpine tunnel. A coiled spring of good iron is as good as one of india rubber or steel, and we would prefer it in a rock drill. The whole philosophy of springs may be embraced in the following sentence . "The power which the material possesses in returning to its original condition in the shortest space of time." Wedo not know whether the other machine to which you refer is in operation or not.

N. Y., of N. Y .- About forty gallons of oil and some paraffine are obtained from a tun of the best cannel coal. No other useful products, we understand, are se-cured in making kerosene. We are not acquainted with the Fitzmaurice light to which you reier, as de-scribed in the London papers. Its merits, we believe, are exaggerated.

C. S., of O .- We do not think that common salt employed in an iron smelting furnace increases its temperature, but it improves the quality of the metal by acting as a flux to remove the impurities.

S. S., of R. I .- We are not aware that sun glasses have been made above a few inches in diameter. The rays of heat may be concentrated at any distance you please behind a glass by the use of several mirrors. Objects have been set on fire at several yards distance by such glasses.

J. B. C., of Tenn.-The wedge-formed boat tapering from bow to stern, and having an inclined floor, is a very good model for sailing in smooth water but it would not answer so well for sea-going vessels, nor for steam propellers.

J. S, of Ohio-The process of rotting flax in water is simply to steep it for about nine days in a stagnant pool in summer, or in a vat with water at a temperature of about 64° Fah.

J. A., of N. S .- Among the earliest telegraphs brought before the public was one for operating, with 26 wires, the several letters of the common alphabet. Electricity could not be employed advantageously in spinning flax to render the fibers adhesive, as it rather tends to impart repulsive qualities to them. L. P. S., of Conn.—The word "patent" could not be

legally stamped on a machine made after the patent has expired.

A. W. Henning-Please inform us in what town and State you reside, and you will hear from us about your invention.

J. G., of Ind.-We thank you for the club of subscribers you sent us. We have been amused with your criticism of the "Miller." It is probably not far out of the way W. C. G., of Tenn.-Paddles for wheels, so arranged

as to be kept in a vertical position to obviate "back lift," is an old and well-known arrangement

Money received at the Scientific American Office on account of Patent Office business, for the week ending Friday, December 24, 1858 :-

Friday, December 24, 1858 :--J. R. P., of N. Y., \$30; D. D., of N. Y., \$30; B. B., of Maine, \$30; J. S. McC., of Ala., \$35; J. W. P., of N. Y., \$50; F. M. D., of Wis., \$25; J. W. B., of N. Y., \$30; P. A. P., of N. Y., \$55; W. H. G., of Del., \$30;

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A CARD-THIS IS TO NOTIFY THE PUBLIC A that Lieut. Symmes having found it impossible to get one contestant (Mr. G. Smith) up to the scratch in a breech-loading "booting match of "300 shots a side without charing"-which are Mr. Smith's own terms -and having beaten another contrestant (Mr. Gibbs) in 100 shots at 600 yards 61 feet in the string, bows all round, and begs to clap his wings and crow, that his breech-loading gun is the champion of the United States; and he will soon show off Europe also, unless some aspiring breech-loader shall take him down in the meantime (for his challenge is always open); and he begs to say that his gun, having made its reputation, will soon make its appearance for general sale, as the best breech-loader. JOHN C. SYMMES, list Lieut, U. S. Ordnance, Watertown Arsenal, Mass., Dec. 25, 1858. 1\*

Watertown Arsenal, Mass., Dec. 23, 1855. 17 WATER POWER AND HILL SITE FOR Manufactures at Paterson. N. J., propose to lease for 21 years, renewable for ever, a mill lot with six feet of water, to be taken from the first or upper canal, and discharged into the second or middle canal. The head and fall is about 24 feet. The mill lot is well adapted for any manufacturing business. This property is ready to enter on—is at Paterson, and convenient to the heat of a large manufacturing population, and all the advantages incident to such a locality. For particulars apply at the office of the Society, Paterson, N J. 176\*

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