

Hints and Queries

D. T., of Pa.—Your plan for raising sunken vessels, by securing team boilers to their sides and then pumping the water out of the boilers, is essentially the same as one in common use with the difference that stout wooden casks are employed instead of iron boilers.

M. W., of N. J.—We know of no treatise on the manufacture of pistols. Booth's, Muspratt's, or any other large work on chemistry, will give you full directions for making fulminating powders. No one should attempt this dangerous operation who is not accustomed to chemical manipulations.

J. M. M., of N. Y.—Inventors frequently prejudice persons disposed to use their machinery by incredible statements. No boiler in existence "will save nine-tenths" of the fuel required to run another boiler of similar capacity.

D. S., of Pa.—It seems to us that the crank motion is beautifully adapted to the steam engine, as with a constant motion of the crank the motion of the piston is slow at the ends and rapid in the middle of the stroke, just as is desired. We should be surprised if any properly conducted experiment should show other modes of converting rectilinear into rotary motion to be more economical.

G. R., of Mass.—You can obtain asbestos of Julius G. Phole, M. D., analytical chemist, successor to Dr. Chilton, No. 93 Prince street, New York.

G. E. S., of Cal.—The uses of asbestos are very few and the demand small. If that in your locality has a fine, strong fiber you might possibly find a market for it by writing to Schieffelin Brothers, of this city.

T. J. W., of N. Y.—In the perfect combustion of coal one atom of carbon combines with two atoms of oxygen to form carbonic acid, CO2. The weight of the carbon atom is 6, and of the oxygen 8, so the proportion is 6 pounds of carbon to 16 of oxygen. The weight of 100 cubic inches of air is 31 grains, and the proportion of oxygen is 22.76-100ths per cent. From these data you can make your own calculations.

C. R. W., of Ill.—We should think a caloric engine would answer your purpose if you have no more machinery to ride than what you state.

W. H. F., of Mass.—You inquire whether certain tools in our article under that head are new or old. We can tell better when we know what tools you mean.

C. B. S., of Conn.—All pumps require more or less attention. If any man sells you a machine of any kind and says it requires no attention he makes a rash statement.

D. R. W., of Maine.—We have no faith in recutting files with sulphuric acid. No durability is found in files so treated.

J. H. J., of Ohio.—We have our own opinion in regard to the discoveries claimed for Swedonborg, but we do not introduce discussions into the SCIENTIFIC AMERICAN which are likely to promote sectarian controversy.

W. C. C., of N. Y.—You had better write to the Commissioner of Agriculture, at Washington, for information about tobacco seed.

Money Received

At the Scientific American Office, on account of Patent Office business, from Wednesday, February 15, to Wednesday, February 22, 1865:—

- R. R., of N. Y., \$30; G. & H., of N. Y., \$30; C. W. C., of N. Y., \$12; J. A. M., of N. Y., \$25; W. H. L., of N. Y., \$30; C. F., of N. Y., \$12; J. P. B., of N. Y., \$25; B. M. S., of N. Y., \$25; J. W. C., of N. Y., \$12; N. E. B., of N. Y., \$25; L. E., of N. Y., \$33; W. W., of N. Y., \$15; B. & S., of Conn., \$30; B. D. S., of Va., \$70; F. L., of Ohio, \$20; G. Q., of N. Y., \$30; W. M. S., of N. Y., \$15; F. & D., of Mass., \$20; W. R. T., of Pa., \$20; J. G. V., of Conn., \$20; F. & W., of N. Y., \$20; J. Z., of N. Y., \$70; J. A., of N. H., \$20; W. H., of Del., \$20; J. K., of N. Y., \$20; H. H. E., of Conn., \$20; R. A., of Ohio, \$20; J. H., of N. Y., \$20; J. B., of N. Y., \$20; J. C. M., of Ohio, \$20; D. F. W., of Ky., \$20; J. N. P., of N. Y., \$20; J. R., of Ind., \$21; H. Z., of N. Y., \$20; A. A. M., of N. Y., \$20; L. B., of N. Y., \$15; W. G. M., of N. Y., \$20; E. H., of N. Y., \$40; F. M. C. Dev., of N. Y., \$22; W. H., of N. Y., \$20; G. F. S., of N. Y., \$45; A. E., of Ohio, \$20; A. B., of Ohio, \$20; J. L., of Mass., \$20; B. & M., of N. Y., \$45; L. C. P., of Ill., \$55; H. G. W., of Iowa, \$45; J. H., of N. Y., \$20; B. & W., of Ind., \$40; L. D., of N. Y., \$15; J. M. D., of N. Y., \$15; A. H., of N. Y., \$136; B. O., of N. Y., \$16; H. B., of Iowa, \$20; D. S., of Mass., \$20; M. B. D., of N. Y., \$20; L. J. R., of N. Y., \$50; B. & B., of N. Y., \$15; W. C. H., of N. Y., \$22; M. K., of N. J., \$22; T. L. L., of R. I., \$20; C. & D., of 11, \$22; J. W. B., of N. Y., \$15; R. N., of N. Y., \$45; W. L. F., of N. Y., \$15; A. W. H., of N. Y., \$20; J. M. C., of Mass., \$35; S. T., of N. Y., \$20; J. L. T., of Mass., \$20; J. & S., of Conn., \$20; W. S. McE., of Conn., \$15; J. M. C., of Mass., \$23; C. F., of N. Y., \$20; F. G. H., of Mass., \$15; L. O. F., of N. Y., \$15; E. L. C., of N. Y., \$41; G. S., of N. Y., \$15; L. R. B., of N. J., \$15; L. & B., of Ohio, \$250; T. S., of Conn., \$15; J. M. R., of N. J., \$50; W. & C., of N. J., \$25; C. C. T., of Me., \$30; H. O. C., of Eng., \$16; L. R., of N. Y., \$35; J. L., of Ohio, \$15; J. K., of Iowa, \$15; J. M., of Mass., \$16; J. C. C., of Conn., \$25; H. & R., of Ohio, \$16; J. E. M., of Wis., \$15; K. & M., of Pa., \$10; W. O. B., of N. J., \$25; I. W. L., of N. Y., \$27; N. H., of N. Y., \$15; J. E. Y., of Pa., \$16; F. G. J., of N. Y., \$20; J. S. G., of Me., \$25; J. R. C., of N. Y., \$15; J. F., of N. Y., \$15; R. B., of N. J., \$15; J. L. K., of Pa., \$15; J. S., of N. Y., \$5; J. H., of N. H., \$15; J. S. B., of N. Y., \$136; T. L. M., of Ohio, \$21; L. H. H., of N. Y., \$207; A. W. F., of Vt., \$25; P. C. R., of Mass., \$15; W. N. C., of Conn., \$10; J. W. A., of Ill., \$15; M. R. S., of Ohio, \$16; S. & H., of Ind., \$16; S. S. D., of Wis., \$25; T. B. G., of U. S. N., \$50; T. J. B., of Tenn., \$20; C. N., of Ill., \$25; S. B., of Pa., \$10; D. C. of Wis., \$25; J. H. T., of Nebraska, \$16; T. W. C., of N. H., \$16; D. & S., of Pa., \$16; J. A., of Wis., \$21; J. B., of Ill., \$20; H. G. H., of Mass., \$10; N. E. B., of N. Y., \$25; P. & D., of N. Y., \$23; C. W. C., of Mass., \$16; A. K. F., of La., \$76; B.

S. H., of Mass., \$25; W. C., of Mass., \$30; A. H. N., of Mass., \$25; G. A. H., of Mass., \$16; J. B. K., of N. Y., \$15; A. & L., of Pa., \$15; W. W., Jr., of Del., \$46; C. & R., of N. Y., \$25; H. C. S., of Me., \$25; J. R., of Pa., \$15; G. F. W., of Mass., \$40; W. & T., of Vt., \$25; C. G., of Mass., \$25; J. A. M., of Mass., \$40; E. B., Jr., of R. I., \$15; C. H., of N. Y., \$25; E. W., of Me., \$10.

Persons having remitted money to this office will please to examine the above list to see that their initials appear in it, and if they have not received an acknowledgment by mail, and their initials are not to be found in this list, they will please notify us immediately, stating the amount and how it was sent, whether by mail or express.

Specifications and drawings and models belonging to parties with the following initials have been forwarded to the Patent Office, from Wednesday, Feb. 15, to Wednesday, Feb. 22, 1865:— J. W. N., of Conn., 2 cases; R. R., of N. Y.; G. & H., of N. Y.; C. W. C., of N. Y.; W. H. L., of N. Y.; J. P. B., of N. Y.; B. M. S., of N. Y.; J. W. C., of N. Y.; A. S. L., of N. Y.; N. E. B., of N. Y.; B. & S., of Conn.; B. D. S., of Va.; G. Q. P., of N. Y.; J. Z., of N. Y.; W. G. M., of N. Y.; E. H., of N. Y.; F. M. C. Dev., of N. Y.; A. H., of N. Y., 3 cases; L. J. R., of N. Y.; W. C. H., of N. Y.; S. T., of N. Y.; E. L. C., of N. Y.; D. C., of N. J.; A. K. F., of La.; P. & D., of N. Y.; E. S. H., of Mass.; A. H. N., of Mass.; W. C., of Mass.; T. I. B., of Tenn.; C. N., of Ill.; D. C., of Wis.; D. G. H., of Mass., 2 cases; P. D., of Pa.; L. R., of N. Y.; C. C. T., of Me.; J. S., of N. Y.; W. O. H., of N. J.; J. J. G., of Me.; A. W. F., of Vt.; S. S. D., of Mass.; T. S., of Conn.; J. M. R., of N. J.; C. & R., of N. Y.; H. C. S., of Me.; C. G., of Mass.; W. & T., of Vt.; G. F. W., of Mass.; C. B., of Mass.; O. F. & M., of France; W. & C., of N. J., \$15.

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The publishers of the SCIENTIFIC AMERICAN have just prepared with much care a pamphlet of information about Patents and the Patent Laws, which ought to be in the hands of every inventor and patentee, and also of manufacturers who use patented inventions. The character of this useful work will be better understood after reading the following synopsis of its contents:—

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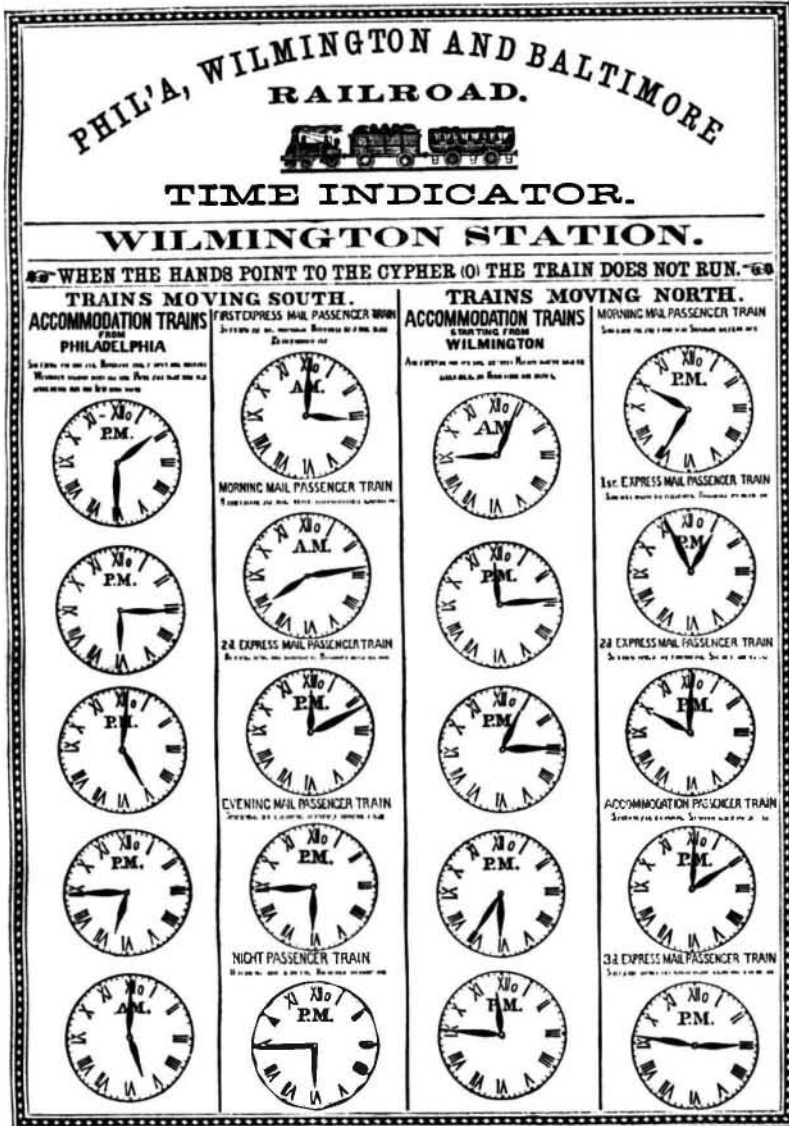
**Perpetual Time Indicator.**

Much annoyance occurs to travelers from want of facilities to learn the hour at which a certain train is to arrive or depart. Railway clerks complain that they are fretted within an inch of their lives by continual inquiry as to "when the five o'clock train will leave;" and they allege that the incessant questioning they are obliged to put up with justifies them in being as curt and uncommunicative as if they owned the fee simple of the railway and the travelers to boot.

**The Cyclone at Calcutta.**

The correspondent of the London *Times* writing from Calcutta on the 23rd Dec., says:—"I see that the news of 12,000 persons having been lost in the cyclone was received with incredulity in England. The estimate was wide of the truth, but only because it vastly underrated the calamity. As every one who knows this country will readily conceive, there is no possibility of ascertaining precisely the loss of life, because hundreds might be swept away and leave no traces behind. But we are not without data for arriv-

will not help his countrymen. God gave him his money, and God intended him to keep it. That is pretty much his mode of reasoning. Sometimes the fever strikes him, and then in abject terror he offers English doctors a few rupees to come and visit him. In a recent case of that sort, the man—who was worth about four millions sterling—had refused to give a pice to the poor after the cyclone. When death was at his throat he altered his mind, and promised large benefactions if he recovered. He was not spared to add falsehood to his cruel service.



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ing at a conclusion, and it has now been calculated that there cannot have been fewer than 60,000 persons drowned or otherwise killed by that fearful storm. In the island of Saugor alone, before the cyclone, there were 8,200 persons. There are now 1,200—nor have any left it to go elsewhere. 7 000 persons, were carried clean away by the wave. All up the river the population has been swept off, if not in the same proportion, yet in very large numbers. As we all anticipated, disease is raging everywhere—cholera, fever, and smallpox. The epidemic fever, which I mentioned in previous letters this year, is depopulating whole districts. A magistrate told me the other day that he had been riding through a village in which there was hardly a grown-up person left. They had died without hope of assistance, without medicine, without food—for the crops were rotting on the ground in many parts where the salt water rushed in. The Bengalese are in a deplorable plight, and the zemindars increase the general misery by turning the ryots out of their huts because they are behind-hand with their rents. There is money enough to give relief—such relief as can be got for money. But human means seem quite powerless to stop the awful diseases that are walking through the land, carrying thousands before them. The native feels himself ill, wraps himself in his blanket, says it is fate, and so perishes. In this enormous population—let it be remembered that here in Bengal alone we have at least 45,000,000 of people—the few Europeans can only do good here and there, and yet it is solely by Europeans that good is being done. The rich native

**ECONOMICAL ENGINEERING.**—There is a proposition afloat to build a railway from Siam to China; and the King of Siam, if an engineer is sent to examine the route, "will furnish elephants and give protection from Bangkok, through his dominions to Huang Phrabang; but he cannot furnish the means to pay passage and salary, and fears it will be wasting all his money. He is also fearful that the engineer will get intoxicated and fall into the river and be drowned, or on account of change of climate die of dysentery, or from traveling in the jungle may die of jungle fever, the same as many others have done, and thus the business prove a failure, and the money wasted."

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