



C. C., of Conn.-The best test for the presence of lead in water is sulphuretted hydrogen, which produces a black denacit

D. McD., of Wis.-The weight is, as you say, the principal objection to traction engines for plowing, reaping, etc. In England they are used to some extent in dockyards, but the use does not seem to extend very rapidly, probably because there are few places in which they are more convenient than horses

J. H., of Pa.-You will find the geology of petroleum very fully stated in No. 20 of our last volume, pages 308, 314 and 315

J. S. T., of Va.---We do not know of any place where a diagonal connection between a brace and bit can be had. Get some mechanic to make one.

J. E., of Mass.-Buy "Bourne's Catechism," it is far better than Campin's work. H. C. Baird, 406 Walnut street, Phila

delphia, will furnish it. T. F. C., of Wis.—A slide has been used to cover the outside keyhole when the door is locked. If you will submit to us a sketch of yours we will give our opinion in regard to it.

O. B., of Mo .- The Justice must affix to the oath attashed to the specification a five cent revenue stamp. The cer tificate of an individual who has witnessed the operation of a ma

chine does not require a stamp. E. S. V., of Pa.-We gave Mr. Burns address in our paper in connection with his letter. If youj desire to ireach him more particularly with your invention, you had better advertise it in our paper

B. E. C., of S. C .- We shall be glad to receive from you an article upon the salt deposit upon steam boilers.

D. S., of Mass.-The cheapest plan for making hydro gen on a large scale is by decomposing water by means of heated charcoal or coke; zinc is a very costly material for this purpose. You can easily try an asbestos wick and see whether it will work.

E. J.; of Mass.-Ivory is bleached by soaking it in water, and exposing it to the action of the sun. - 0

Money Received

At the Scientific American Office, on account of Patent Office business, from Wednesday, Dec. 14, 1864, to Wednesday. Dec 21, 1864:-

21, 1884:--T. L., of N. Y., \$20; H. W. H., of Conn., \$20; I. F. B., of Conn., \$20; M. C. D., of Ohio, \$20; J. H. S., of N. Y., \$20; H. Y., of N. Y. \$20; C. F. B., of N. Y., \$45; J. S., of Ill., \$45; F. L., of N. Y., \$15; J. P., of N. J., \$45; H. & W., of Cal., \$25; H. B., of N. Y., \$15; W. H. S., of N. Y., \$20; T. S., of N. Y., \$20; J. M., of N. Y., \$40; J. B., of N. Y., \$20; D. C. H., of Pa., \$20; J. McG.. of N. Y., \$40; J. B., of N. Y., \$20; D. C. H., of Pa., \$30; J. C. G., of N. J., \$15; C. M. & G. (Onn., \$45; W. & S., of Pa., \$30; J. C. G., of N. J., \$15; C. M. & G. R., of N. Y., \$15; 'A. T. B., of N. Y., \$25; B. & M., of N. Y., \$45; W. H., of N. Y., \$15; 'A. T. B., of N. Y., \$20; J. & N. W. R. of Mass., \$25; D. S., of Cal., \$30; H. H., of Ill., \$20; J. H. of N. Y., \$42; O. R. B., of Conn., \$40; J. T. P. H., of N. I., \$45; P. W., of Minn, \$20; J. W. N., of Conn., \$40; J. F., of N. Y., \$15; A. B., of N. Y., \$40; E. H., of Ill., \$20; W. N., of Mass., \$22; J. S, of N. Y., \$22; N. R., of Conn., \$40; J. T., H., of N. Y., \$15; W. S., of N. Y., \$22; W. & McG., of Iowa, \$20; C. U. B., of N. Y., \$20; E. H., of Mass., \$20; M. R. H., of M. J., \$45; G. M., of N. Y., \$22; W. & McG., of Iowa, \$20; C. U. B., of N. Y., \$40; G. E. H., of Mass., \$20; M. R. H., of N. J., \$45; M. G. N. Y., \$40; G. E. H., of Mass., \$20; M. R. H., of Ind., \$20; J. M. F., of Ill., \$20; E. H., of Mass., \$20; M. R. H., of Ohio, \$45; A. & F., of N. Y., \$15; T. V. W., of N. Y., \$45; D. H. H., of Ohio, \$45; A. & F., of N. S., \$20; A. K., of Ill., \$20; W. K. L., of Mass., \$16; J. C., of Mass., \$20; A. K., of Ill., \$20; W. K. L., of Mass., \$16; J. C., of Ill., \$15; J. A., of Ill., \$20; W. & C. G. S. Of Mass., \$16; J. C., of Ill., \$15; J. A., of Ill. T. L., of N. Y., \$20; H. W. H., of Conn., \$20; I. F. B., of Conn N. Y., \$40; D. H. H., 01 Onlo, \$40; A. & F., 01 N. Y., \$40, I. V. W., of N. Y., \$40; D. H. H., 01 Onlo, \$40; A. & F., 01 N. Y., \$40, I. V. W., of N. Y., \$10; E. H. M., of Iowa, \$20; J. C. S., of Mass., \$20; A. K., of III, \$20; W. K. L., of Mass., \$16; J. C., of III., \$15; J. A., of III., \$30; J. C. & G. S., of Mass., \$16; C. H. S., of III., \$45; W. R. L., of Conn., \$15; J. R., of Ind., \$25; T. J. L., of R. I., \$15; W. H. & G. W. M., of Conn., \$45; D. F. W., of Ky., \$25; W. E.:R., of III., \$15; W. C., of Ohio, \$15; J. B., of N. Y., \$15; L. & D., of Canada, \$25; H. & C., of Mich., \$35; A. H. W., of Maine, \$15; H. K. J., of Conn., \$40; B. F. W., of Ind., \$16; R. & C., of Conn., \$25; E. B. T., of Mass., \$16; J. C., of N. Y., \$25; J. L., of Mass., \$25; F. M. G., of Pia., \$25; G. V. S., of Pa., \$15; D. McC., of Ohio, \$25; J. H. N., of N. Y., \$15; S. J. C., cf Conn., \$25; H. H., of N. Y., \$10; C. H. P., of N. Y., \$15; S. J. C., cf Conn., \$25; H. H., of N. Y., \$10; C. H. P., of N. Y., \$15; J. N., of Mass., \$25; T. L. S., of Mass., \$50; V. W. B., of Vt., \$15; F. of Mich., \$20; W. L. C., of Wis., \$10; T. R., of Cal., \$20; F. W. E., of Mich., \$20; W. L. C., of Wis., \$15; M. H., of Mich., \$10; J. F. W., of N. H., \$16; W. F., of Conn., \$15; J. M. P., of Mich., \$15; J. B., of N., \$40; D. G. F., of Wis., \$15; J. M. P., of Mich., \$15; J. B., of N., \$40; D. G. F., of Conn., \$15; J. M. P., of Mass., \$15; J. B., of N., \$40; D. G. F., of Conn., \$15; J. M. C., of Mass., \$15; J. B., of III., \$30; Mrs. L. E. S., of III., \$252.

Personshaving remitted money to this office will please to exam 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 befound in this list, they will please notify usimmediately, statim 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, Dec. 14, 1864, to Wednesday, Dec. 21, 1864:-

Y. L., of N. Y.; A. T. B., of N. Y.; G. M., of N. Y.; H. M. H., of N. Y.; W. & S., of Pa.; D. F. W., of Ky.; J. R., of Ill.; R. & McM., of Ky.; O. P. S., of Ill.; K. & E., of Pa.; J. N., of Mass.; R. & C., of Ky.; O. P. S., of III.; K. & E., of Pa.; J. N., of MaSS.; K. & C., of Conn.; A. K., of Pa.; W. S., of N. Y.; O. R. B., of N. Y.; C. H. S., of III.; I. A. P., of III.; J. C. G., of N. J.; J. L., of MaSS.; J. E., of Cal.; S. J. C., of Conn.; H. C., of Maine; T. L. J., of MaSS. (2 cases); H. L., of Iowa; A. P. D., of N. J.; C. H. B., of N. Y.; J. W. N., of Conn.; D. McC., of Ohio; T. R., of Cal.; J. C., of N. Y.; J. R., of Ind.; W. H. & G. W. M.; of Conn.; C. H. S., of N. Y.; Mrs. L. E. S., of III. O. F. of Cohot J. H. G. Y. J. T. T. of N. Y.; S. T. S., of Ill.; C. D. F., of Cuba; L. H., of N. Y.; T. M., of N. Y.; S. & B., of Mich.; F. M. G., of N. Y.; A. & G. W., of Iowa; J. G., of Mich.; H. K. J., of Conn.

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Improved Ohio Corn Husker,

The accompanying engraving represents one of the simplest, most durable and efficient devices for husking corn we have seen. This husker can be worn over a mitten or glove as easily as upon the naked hand, and, therefore, enables a man to husk corn as comfortably in cold weather as to perform any other work.

This husker also saves the hands from becoming sore, and greatly facilitates the operation. It is applied around the center of the ear of corn, not at the point, and with its hooking tooth, A, a single pass will remove the husk in the most perfect manner much better than can be done with a peg. It is made wholly of brass, and will last for years.

and preventing decomposition. He immediately saw that this property of glycerine might be made available for certain pharmaceutical purposes, where it was desired to preserve or extract the aromata of vegetable products, such as elder, orange, cr rose flowers. and also might be substituted for the oils and fats used in the purest process termed enfleurage. The glycerine need not be especially pure, but should be devoid of odor. The elder-flowers should be gathered when the corolla is fully expanded, but not too far gone; they should then be plucked from the stem, and packed firmly in wide-mouthed bottles or jars, without crushing them; and the whole should then be covered with glycerine. Mr. Tichborne says that This invention has now been in use for two years he has thus preserved flowers for two years, and, on



BRINKERHOFF'S OHIO CORN HUSKER.

and has given perfect satisfaction. The inventors | say they have not be able thus far to supply the great demand for them.

This invention was patented by A. W. Brinkerhoff, of Upper Sandusky, Ohio, Sept. 2, 1862, and is manufactured by Messrs. Wood, Fowler & Beery, of the same place. They are sold for fifty cents each, with discount to dealers.

For further particulars apply to either of the above parties, at Upper Sandusky, Ohio. No territory for sale.

Preparation and Properties of Rubidium.

In the Annalen der Chemie und Pharmacie, Prof. Runsen gives an account of his last experiments on rubidium. The latter may be reduced from carbonated acidiferous tartrite of oxide of rubidium (in a manner similar to the reduction of kalium). 75 grains of that salt will yield 5 grains of pure metal melted to a compact mass. It is very light, like silver; its color is white, with a yellowish *nuance* hardly perceptible. In contact with air it covers itself immediately with a bluish grav coating of suboxvd, and is inflamed (even when in large lumps) after a few seconds, much quicker than kalium. At a temperature of 14° Fah., it is still as soft as wax; it becomes liquid at 101.3° Fah., and in red heat it is transformed into a greenish-blue vapor. The specific gravity of rubidium is about 1.52. It is much more electropositive than kalium, if combined with the latter to a galvanic chain by acidiferous water. The rubidium, thrown on water, will burn and show a flame of the same appearance as that exhibited by kalium.

Preserving Flowers.

Mr. C. R. Tichborne states that, being desirous of preserving a vegetable lusus natura for some time, he submerged it in some weak glycerine, considering that that fluid would be less likely to destroy the tender organism, and also remembering that it had been found most efficient in the preservation of animal tissues. The glycerine answered its purpose most ad-

distilling them, procured a water, the perfume of which has equalled the most recent product. For the preservation of the flowers he considers the employment of glycerine far superior to the system termed enfleurage, in which heat is used.

PORTER'S SIFTER SHOVEL.

Every economical housekeeper sifts the ashes and refuse coal left after the fire has been turned out at

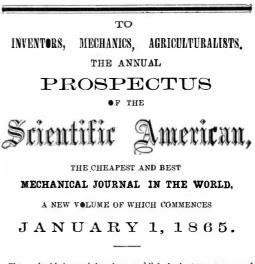


night. By so doing a very marked saving occurs. fully equal to one-third of the whole ash heap.

A shovel which combines a sifter with its other qualities is a very convenient article for the purpose referred to; the one here illustrated is well designed for the object in view. It is made of cast-iron and has a grating at the back part for the ashes to fall

mirably, preserving the delicate parts of the plant through. This shovel is also useful for carrying fire from one place to another, for by the introduction of the grate a draft is maintained which keeps the coals alive much longer than ordinary shovels. A patent was issued to J. H. Porter on the 3d of December, 1864, through the Scientific American Patent Agency. For further information address him at 15 Hudson street, New York.

> SILK WORMS FOR FRANCE .- The San Francisco Bulletin says: "Macondray & Co. will ship by the Constitution, 64 cases of silk worms, which were recently received from Japan, on an order for parties in France. They will be conveyed to New York and thence to Havre. The French silk worms have become diseased, and it is proposed to try the experiment of restoring them to health by admixture with a new stock, or by substituting the latter for them entirely. The Japanese worms produce a very good quality of silk. It may not be generally known in this connection that Provost, the California silk culturist, has for a considerable time been forwarding his healthy larvæ to France."



This valuable journal has been published mineteen years, and during all that time is has been the firm and steady advocate of the interests of the Inventor, Mechanic, Manufacturer and Farmer, and the faithful chronicler of the

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