Scientific American.



C. A., of Me.—The greatest depth of descent by a diving bell recorded, so far as we know, was 170 feet. The fig ures to which you refer represent dollars and cents Biot & Guy Lussac ascended 13,000 feet in a balloon-the greatest balloon elevation known to us.

G. H. B., of N. Y.—Smoke is the result of imperfec combustion. Oxygen is the only element in nature to mix with your fuel to consume it. If you supply your fire with a greater quantity of air, and heat it before admitting it to the fire, such as by conducting it through tubes under the bottom of the grate, you will get rid of

B. A., of N. Y.-We published all we knew respec ing the sewing machine.

C. H. W., of N. C.-The machine for making ice which you allude, is in Cleveland, Ohio, at the Sheboygan Works. We are not acquainted with its construction but have no doubt that chemicals are used in it to produce a low degree of temperature. We believe that it cannot make ice as cheap as has been represented. A machine or process that could make ice cheap, would, as you state, be a grand acquisition to those regions; but such a machine, so far as our knowledge extends, has yet to be invented.

saws with a spring, illustrated on page 28, our last volume, is simple and good. Any of the plans for straining reciprocating saws, illustrated in our last volume, are goed. It is impossible to tell which is the best, without practically testing it; and the same, we may add, is the case with re-action wheels for sawing and grinding pur Apply to the makers of them-those who have advertised in our columns, and those whose wheels have been illustrated—and bargain with the one who will fulfill the best conditions.

A. S., of Ky.—The article you send, on steam boiler explosions, was noticed by us when first published in the Intelligencer. It is not correct in its premises.

J. J. J., of Ala.—Bulkley's Kiln-Drying Apparatus is a good one, we believe. We would advise you to address him: H. G. Bulkley, Kalamazoo, Mich.
W. M. C., of Tenn.—We do not know thatthere is any

demand for cedar bedsteads in this city.

G. W. H., of Ill.—Your offer is liberal, but we are no

in a position to accept of it. L. B. F., of Mich.-You want to know how to make blue and white colors for printing figures on muslin to be

embroidered. Grind up some prussian blue, sold by all the druggists, into powder, and then mix it with a little gum water; use fine whiting in the same manner for your white color. These will answer your purpose. A little starch well boiled will answer as well as the gum.

J. J. W., of Ill .- You want to know the power of the water in your spring, which runs at the rate of 120 gallons per minute, and has a total fall of 27 1-2 feet. It is exactly one-horse power, from which one-fourth would have to be deducted if applied to a wheel. You also want to knowhow many pounds pressure on the piston of a steam engine 8 inches in diameter and 20-inch stroke, will be equal to the power of your spring. Such a comparison is curious, for with an engine of that size (and at a high pressure, as you state) a pressure of 10 lbs. on the square inch, and running only at the rate of 20 revolutions per minute is more than one horse power.

T. M. G., of Pa.—Sendon your sketch for examination without delay. We make no charge for examining inventions and giving opinions in regard to their novelty Inventors who wish to consult us on such matters, can do so freely, and we will furnish them with a printed circular of information free of charge. By delaying to secure your invention in time some one may get ahead of you. This is often done. We have the most extensive Patent Agency in the world, and our prices for preparing case.3 are very moderate.

A. G. C., of Vt.—Your invention caveated in 1843,

bracing a claim for the combined use of steam and air, or steam alone, in a blast or other furnace, is quite differ entfrom that which has received the name of the "Bessemer process." It embraces a blast of air or steam and air, through the liquid metal, after it has been run from the furnace. The use of steam as a blast was patented in

G. B. O., of ----- Perforated plates are now used in

G P., of Mich .- We have the work of Liebigto which you refer, and referred to his opinions some years since to sustain our views in a controversy respecting electro magnetism as a motive power. We are obliged to you for your offers, however.

J. T., of Ohio—Use commonplumber's solder to make

the swell joints of lead pipes. It is composed of 66 parts of lead and 34 of tin.

R. B., of Conn.—Hunt's photography is published by Humphrey, 297 Broadway, this city, it is such a work as

N.K. L., of Ala.-Hodge on the Steam Engine, is such a work as you want. It is published by D. Appleton & Co., this city. Price \$10.

H. E. T., of N. Y.—There is no theory in existence for as we are aware, respecting "how much weight a pile of 800 lbs will support under a ram of 1600 lbs. with a fall of 30 feet," Some of our readers may have adopted on pile-driving from their own experience

C. D. L., of Ill.-It is impossible for us to tell what quantity of water will flow through your ditch per minute, owing to its length, and having only six feet fall to the mile. The resistance of its sides and bottom to the passage of the water must be very great. If you, by experiment, will find out how much flows through it per minute, we will tell you what power it will take to raise it

H. B., of Mass.-There are different kinds of iron ore each of which require to be treated in a manner according to its nature, the carbonate must be treated in a different manner from the red or brown oxyd: therefore one process will not answer for all. The best iron is made from the magnetic oxyd.

C. J. W., of Ohio-The sulphate of zinc is the best drier you can employ to mix with your paint.

Resin is soluble in an alkali, and makes a kind of a soap; it is employed extensively in making

R. H. J., of Ky.-The fiber of the cypress bark is not so white in color as jute or indian hemp, but it is much stronger, and we think it might be made profitable to man-

ufacture into small rope.

W. McD., of N. C.—Resin gas, we think, mut be the cheapest for your State. It is easier to manufacture for public illumination than coal gas. You will find a full description of the method of manufacturing it in Parnell's Chemistry. Resin oil makes an excellent gas also, and as it is cheap in North Carolina it should be more exten sively used. Many cotton factories at the North now use

resin oil gas.
R. H., of N. Y.—Steam is employed in distilling various ubstances, such as coal oil, camphene, &c.

Moneyreceived at the SCIENTIFIC AMERICAN Office naccount of Patent Office business for the week ending

Saturday, Oct. 18, 1856 :— S. B. H., of N. Y., \$30; B. & P., of Wis., \$30; T.H. Pa., \$30; J. J. P., of O., \$25; S. B. H., of N. Y., \$55; G. & F., of N. Y., \$30; J. H. Y., of Mo., \$25; D. & R., of N. Y., \$5; J. S., of Cal., \$30; E. & G., of Vt., \$30; G. C. 2d. of Conn., \$25; J. M. J., of Ala., \$10; L. S., of Conn., \$30; J. G. P., of N. Y., \$250; L. W. B., of N. Y., \$155; O. H. N, fN. Y., \$30; J. C. S., of Mass., \$250; V. N. M., of N. C., \$30; W. C., of L. I., \$30; G. W. D., of N. Y., \$30; C. W., of Conn., \$30; C.H. B., of N. Y., \$55; T. R. H., of Conn., \$55; J. T. R., of N. Y., \$25; G. S. B., of Conn., \$55; W. W., of N. Y., \$30; M. L., of N. Y., \$25; O. O. W., of N. Y., \$25; W. & M., of N. Y., \$25; G. F., of L. I., \$55; E. L. E., of Conn., \$20; F. & B., of N. Y., \$30.

Specifications and drawings belonging to parties with he following initials have been forwarded to the Patent Office during the week ending Saturday, Oct. 18th :-

J J. P., of O.; M. L., of N. Y.; J. L., of Ohio. A. G. C., of Vt.; O. V. D. R., of Ill.; D. & R., of N. Y.; G. C., of Conn., 2nd.; J. H. Y., of Mo.; H. G., of Canada; A. D. B., of Prussia G. H., of L. I., O. O. W., of N.Y. W. & M., of N. Y.; G. F., of L. I.; F. & B., of N. Y.

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WORD OF WARNING .- To those who have procras tinated in renewing their subscriptions, but still design to remit in a few days, we would say, be careful and not delay too long. The back numbers of the present volume are running low, and some of our friends are going to be disappointed, by and by, when they send in their subscriptions, and order the back numbers, by a short reply back, "Back numbers all gone."

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