Powerful Turbines.

A correspondent of the American Odd-Fellow, which, by the way, is a very well conducted and popular magazine, thus have been picked off the vines by hand; four bushels a day describes the turbines used in the Mastodon Mill, in the vil- being the fair average for a hand. A farmer who raised 1,000 lage of Cohoes, New York.

" The entire number of looms in this mill is fourteen hundred and eighty-six; five hundred of which are located on the first floor." These looms and the other machinery of the mill are driven by three "immense turbine water wheels, made by the Ames Manufacturing Company, which operate the main shaft, and possess an aggregate driving capacity of over eleven hundred horse power. This pit having an extreme denth of forty feet, with a floor twenty-five feet from the surface, which hides the water wheels from a top-view, is Pa., thinks people hone and strop razors too much. He has in reality an underground two-story building. Three mammoth cast-iron cylinders, eight feet each in diameter, convey the water from the canal on the west side of the building to the wheels: the volume of water being regulated by a sort sharpen it, but he can still cut a hair held in his fingers with of tiller located in the pit, and connected with the flood-gates. it. Mr. Churchill thinks his razor hard to beat, and we The perpendicular shaft of each turbine is connected with think his beard must be still harder to beat if it has with the main shaft by beveled gear, and the united power exert constant use not dulled a razor in two years. The very ed if so applied, would reverse the motion of the great Burden water wheel at Troy, and drive the machinery of a goodsized manufactory besides. The shaft to which this wondrous power is applied is supported by three granite abutments, icles are becoming more generally introduced than almost and forms the axis of six ponderous driving pulleys, twelve any other labor-saving machinery. It is but a few years feet each in diameter. The immense belts which radiate to since the first patent was taken out on a clothes wringer and all parts of the building are in keeping with the massive now there are but few families that do not use them. A good pulleys and gearing. These are each two feet wide, and the article in the clothes-wringer line is advertised on another longest one, reaching to the fifth story, measures nearly two hundred feet. At the north end of the pit, two rotary force pumps are located, which, in case of fire, can be instantly geared to the main shaft by means of a sliding cog wheel, and are jointly capable of throwing six thousand gallons of water per hour."

A Balloon View of a London Fog.

A London paper says :--- "On Wednesday afternoon, when London and the suburbs were enveloped in a dense fog, Mr. Coxwell made a balloon ascent from the Hornsey Gas Works. The ascent took place at 2:40, when the atmosphere was clear. Soon after three o'clock the fog extended exactly in the direction the balloon was traveling, and presented a strongly defined line of vapor stretching for miles in an easterly direction. The formation of this fog, as witnessed by Mr. Coxwell from his balloon car, was, we hear, one of the most interesting occurrences in the adventurous life of the experienced aeronaut, and will no doubt be fully described. Over the Forest near Woodford, Mr. Coxwell and his companion were unable to see the earth at a hight of only fifty feet, and it was only by the aid of a rope trailing on the ground, that a level course could be regulated so as to select an open spot on which to alight. While holding conversation with some men who were following the balloon, and could only hear the rustling of a rope among the bushes and trees, the aeronauts were supposed to be poachers. Keepers, who were in close pursuit, rushed upon the strangers when Mr. Coxwell cast his graphel in a hedge, and great was their surprise when they discovered what kind of a net and cordage it was trail-¹ J. L. T., of Me., and J. A. B., of Mass.—The Report of the ing over the park. So dense was the fog, that the balloon could not be seen, and the voyagers were supposed to be running along the ground, although Mr. Coxwell proclaimed his balloon, but this was thought to be a ruse to draw off the keeper's attention. Notwithstanding the difficult position, Mr. Coxwell was placed in as to landing, still a safe descent was made."

chines exhibited at the Virginia State Fair Hitherto the nuts bushels required ten hands for nearly two months to save G. B., of Me.-We have had no personal experience in the his crop, at a cost of fifteen cents per bushel. The crop raised on the south side of James river, between Petersburg F. H. G., of Mass .- The mineral you send appears to be a and Norfolk, is estimated at 1,000,000 bushels a year. To save this crop would require the labor of 6,000 hands for two F. D., of La.-The red-colored mineral contains iron ore. months, at a cost of \$200,000. The new machine is said to save much time and labor.

A RAZOR INDEED !- Mr. J. W. Churchill, of Willkesbarre, used one for two years without either honing or stropping it, and it still cuts his beard well, though latterly it begins to pull-a little. He means to use the razor until compelled to thought of it makes our face smart.

CLOTHES WRINGERS .- These indispensable household artipage.

WATER WHEEL EXPERIMENTS .- We have the promise of a report of the recent trial of water wheels at Lowell, Mass., The Babcock & Wilcox Steam Engine received the First Prefor publication in our next number.

Answers to Correspondents.

- L. B. F., of N. Y.—The power to direct safeguards in the use steam boilers, and to provide for the inspection of stationary steam boilers is vested in the local boards of health by the Statutes of New York. These boards are, we believe, appointed by supervisors, unless the Boards are organized under a special commission like the Metropolitan Board of Health, and have power to enforce their requirements. There is no general law requiring the use of lock-up safety valves on such boilers.
- A. F. W., of Mass.-To set the tail-stock of a lathe so as to turn a taper .vou must set it off the center half the amount of the taper. A good practical way to do this is to turn down the work at each end to the size you want it before altering the lathe. Then set your tool accurately to the larger end of the work, and run it along opposite the smaller end and use it as a gage in moving the tail stock off the center.
- J. A. M., of N. Y.-A wheel intended to roll around a circle eight feet in diameter, would need, in order that it should not grind but roll freely around the circle, to be beveled so as to incline the outer surface one foot from the perpendicular.
- W. H. G., of Ohio.-We have no report upon the experiment of carrying fresh meats in the ship Henry Taber, constructed for that purpose. If it succeeds we shall certainly hear of it and will publish the fact.
- quartz crystals. The red colored specimens are garnets. They contain silicate of alumina, iron, etc. .
- Smithsonian Institute is prepared by Prof Henry, Washington, D. C. You had better write to him on the subject.
- E. A. G., of Mass.—" Byrne's Practical Metal-workers' Assistant," contains the exact information you require. Published by Henry Carey Baird, Philadelphia.
- D. W. R., of Mich.-Your question cannot be answered without diagrams, and it is not of enough general interest to warrant our doing this.

A PEANUT picker was among the new labor-saving ma- J. R., of Iowa .- The protoxide of chromium is a compound of 26 parts of the metal chronium and 8 of oxygen.

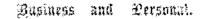
> C. C., of O.-The best food for fishes, in a fresh water aquarium is dried beef cut up very finely.

lumber trade, and cannot ans wer the point of your inquiry.

species of conglomerate. We discover no snells.

S. K. P., of Del.-We cannot explain the phenomenon to

which you refer; but your only relief consists in thorough drainage C. S. J., of N. Y.-You can render mull or jaconet much stiffer than starch can make it by the use of isinglass size.



The Charge for Insertion under this head is One Dollar a Line. If the Notices exceed Four Lines. One Dollar and a Half per line will be charged.

To ascertain where there will be a demand for new machinery or manufacturers' supplies read Boston Commercial Bulletin's manufacturing news of the United States. Terms \$400 a year.

Wanted-Brick-making machine circulars. Box 6001, N.Y. In actual use-" Broughton's " Oil Cups and Lubricators have proved to be superior to any. Address, for circulars, FI. Moore, 41 Center

Peck's patent drop press. Milo Peck & Co., New Haven, Ct.

st., Ne w York.

Back Nos., Vols., and Sets of Scientific American for sale. Address Theo. Tusch, No. 37 Park Row, New York.

Mineral Collections-50 selected specimens, including gold and silver ores, \$15. Orders executed on receipt of the amount. L. & J. Feuchtwanger, Chemists, 55 Cedar st., New York.

mium for the Most Perfect Automatic Expansion Valve Gear, at the late Exhibition of the American Institute. Babcock, Wilcox & Co., 44 Corts landt st., Ne w York.

For best quality Gray Iron Small Castings, plain and fancy Apply to the Whitneyville Foundery, near New Haven, Conn

Keuffel & Esser, 71 Nassau st., N.Y., the best place to get 1st-class Drawing Materials, Swiss Instruments, and Rubber Triangles and Curves

Foot Lathes-E. P. Ryder's improved-220 Center st., N. Y. Those wanting latest improved Hub and Spoke Machinery,

address Kettenring, Strong & Lauster, Defiance, Ohio.

For tinmans' tools, presses, etc., apply to Mays & Bliss, Brook lyn, N. Y.

Mill-stone dressing diamond machine, simple, effective, durable. Also, Glazier's diamonds. John Dickinson, 64 Nassau st., New York.

Send for a circular on the uses of Soluble Glass, or Silicates of Soda and Potash. Manufactured by L. & J. W. Feuchtwanger, Chemists and Drug Importers, 55 Cedar st., New York

Glynn's Anti-Incrustator for Steam Boiler-The only reliable preventative. No foaming, and does not attack metals of boiler. Liberal terms to Agents. C. D. Fredricks, 587 Broadway, New York.

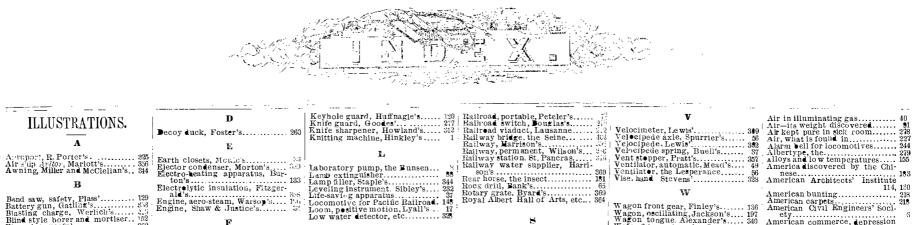
Cold Rolled-Shafting, piston rods, pump rods, Collins pat. double compression couplings, manufactured by Jones & Laughlins, Pittsburgh, Pa.

C. P., of N. H.-The light minerals you send are common For solid wrought-iron beams, etc., see advertisement. Address Union Iren Mills, Pittsburgh, Pa., for lithograph, etc.

> Machinists, boiler makers, tinners, and workers of sheet metals read advertisement of the Parker Power Presses.

> Diamond carbon, formed into wedge or other shapes for pointing and edging tools or cutters for drilling and working stone, etc. Send stampfor circular. John Dickinson.64 Nasseu st., New York.

> The paper that meets the eye of manufacturers throughout the United States-Boston Bulletin, \$4:00 a year. Advertisements 17c. a linc. Winans' boiler powder, 11 Wall st., N. Y., removes Incrusta tions without injury or foaming; 12 years in use. Be ware of Imitations.



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