A correspondenerful Turbines.
A correspondent of the American Odd-Hellow, which, by the way, is a very well conducted and popular magazine, thus describes the turbines used
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 ex treme depth of forty feet, with a fioor twenty-five feet from the surface, which hides the water wheels from a top-view, is in reality an undergreund 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 of tiller located in the pit, and connected with the flood-gates. The perpendicular shaft of each turbine is connected with the main shaft by beveled gear, and the united power exerted, if so applied, would reverse the motion of the rrant 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, and forms the axis of six ponderous driving pulleys, twelve feet each in diameter. The immense belts which radiate to all parts of the building are in keeping with the massive pulleys and gearing. These are each two feet wide, and the 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 con whee and are jointly capable of throwing six thousand gallons of water per hour."

## $A$ Ealloon View of a Londom Fog.

A London paper says:-"On Wednesday afternoon, when London and the suburbs were enveloped in a dense feg, Mr. Coxwell made a balloon ascent from the Hornsey Gas Works. Coxwell made a balloon ascent from the fornsey Gas Works. 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 werc 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 ursuit, rushed upon the strangers when Mr. Coxwell cast his grapnel in a hedge, and great was their surprise when they discovered what kind of a net and cordage it was trailing 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. Cox well 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 deseent was made."

A PEANUT picker was among the new labor-saving mahines exhibited at the Virginia State Fair Hitherto the nuts have been picked off the vines by hand; four bushels a day heing the fairaverage for a hand. A farmer who raised 1,000 bushels required ten hands for nearly two months to save his crep, at a cost of fifteen cents per bushel. The crop raised on the south side of James river, between Petersburg
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 months, at a cost of $\$ 200,000$. The new machine is said to ave much time and labor.

A Razor Indeed !-Mr. J. W. Churchill, of Willkesbarre, Pa., thinks people hone and strop razors too much. He has 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 sharpen it, but he can still cut a hair held in his fingers with Mr. Churchill thinks his razor hard to beat and we think his beard must be still harder to beat if it has with constant use not dulled a razor in two years. The very thought of it makes our face smart.
Clothes Wringers.-These indispensable household artiles are becoming more generally introduced than almost ny other labor-saving machinery. It is but a few years ince the first patent was iaken out on a clethes wringer and now there are but few families that do not use them. A good
 age.
Water Wheel Experiments.-We have the promise of report of the recent trial of water wheels at Lowell, Mass., for publication in our next number.

## Auswern is Corregumitnts.

L. B. F., of N. Y.-The power to direct safeguards in the use steam boilers, and to provide forthe inspection of stationarv steam boilers
is vested in the local boardsof health bythe 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 po wer to enforce their requirements. There is no A. F. W., of Mass.-To set the tail-stock of a lathe so as to turn a taper, you must set it off the center half the amount of the taper $\Lambda$ good practical way to $\alpha o$ 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 smanler 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 face 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 purpos
tact.
C. P., of N. H.-The light minerals you send are common quartz crystals. The red colored specimens are garnets. They contain of alumina, iron, etc.
J. L. T., of Me., and J. A. B., of Mass.-'The Report of the Smithsonian institute is prepared by r
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, Phlladelphia. D. W. R., of̃ Mich.-Y४ur question cannot be answered without dagrams, and it is not of enough general interest to warrant our
doing this.
J. R., of Iowa.-The protoxide of chromium is a compound o 26 parts of the metal chroxium and 8 of oxygen.
C. C., of 0 .-The best food for fishes, in a fresh water aquarium is dried beef cut up very finely.
G. B., of Me.-We have had no personal experience in the lumber trade, and cannot ans wer the point of your inquiry.
. H. G., of Mass.-The mineral you send appears to be a species of conglomerate. We discover no snells.
F. D., of La.-The red-colored mineral contains iron ore. 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 muchstiffer than starch can make it by the use of isinglass size.

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