

AMERICAN ENGINEERS' ASSOCIATION.

[Reported expressly for the Scientific American.]

On Wednesday evening, Nov. 6th, the usual monthly meeting of this association was held at its room, No. 24 Cooper Institute, this city—Thomas B. Stillman, President, in the chair; Benjamin Garvey, Secretary.

The customary miscellaneous business having been transacted, the election of members was proceeded with: the names published in this journal, as those proposed at the last meeting, were taken up. A member present objecting to the name of one person upon that list, as being unfit to become a member of this society, it was resolved that each be singly balloted for. This was done, and all, with one exception, were unanimously elected. The subjoined were proposed for the same object:—Robert Simpson and Abraham B. Davies.

Mr. Louis Koch, in behalf of the Committee on Science and New Inventions, gave the society, by request, a verbal report of their decisions in relation to the articles lately submitted to them. As this report was referred back for the purpose of having it properly presented in writing at a subsequent meeting, it will be better to defer its publication until that period.

The Board of Managers have in progress the revision of the constitution, by-laws, &c., but not being in such a state of forwardness as to admit of report at this time, it was resolved, in order to facilitate the accomplishment of this essential business, that, when the association adjourns, it do so till Wednesday evening next, that the above work might be acted upon, and finished, if possible.

At this period the society were pleased to inspect and listen to an explanation of the annexed

NEW INVENTION.

Oscillating Piston Engine.—Mr. Mark Runkel exhibited his new oscillating piston engine. This engine consists of a short cylinder, the central portion of which is occupied by a wheel performing the office of a piston, which makes about half a revolution in one direction, and then stops and turns back in the other direction—thus oscillating back and forth. The wheel is made with two wings fastened securely upon it, extending to the inner surface of the cylinder, and packed steam tight on their sides and ends. Two abutments are secured rigidly to the cylinder, and project inward to the wheel or piston, being packed at their ends so that the piston may revolve against them steam tight. Steam is admitted and discharged through ports which communicate with an ordinary steam chest, and are opened and closed by the common D-valve, or any valve of suitable form. The crank or arm on the end of the axle is made of a proper length in relation to the length of the crank on the flywheel shaft, to cause a revolution of the latter at each oscillation of the former. The pressure on the axle of the piston is balanced as it acts on both sides, thus reducing the friction to a low point and obviating all tendency of the piston to get out of place by wearing its bearings. The inventor, among other points, claims simplicity, durability, compactness and economy of space and great effective power. This engine dispenses with slides, and renders high-pressure velocities of piston practicable of attainment.

This invention was referred to the appropriate committee, who will duly report thereon.

After a few unimportant remarks on other subjects, the meeting adjourned.

A NOVEL YACHT.

The London *Illustrated Times* contains the engraving of a beautiful yacht in the form of a white swan. Its length is 17 feet 6 inches, its greatest breadth of beam 7 feet 6 inches, and its height from the keel to the top of the back, 7 feet 3 inches. Even in detail the proportions of a swan on a large scale are strictly adhered to. Its neck and head, beautifully carved, rise gracefully 16 feet above the water line. The wings of the bird are represented by the sails. The vessel is a perfect life-boat. Beside the wings, a propelling force is given by means of two powerful steel-webbed and feathering feet, placed in their natural position between the keels. The seats are covered with green morocco, and stuffed with granulated cork and cocoa-nut fiber. The ceiling is lined with a 3-inch air casing to exclude

the heat. There are Venetian blinds at the sides, with oval plate glass windows, which can be lifted or lowered at pleasure. In the center is a table, and there are small apertures which open to the water underneath, and thus afford the opportunity of fishing while sitting at table. Any aquatic prey thus obtained may be dressed in a mullum in parvo cooking apparatus on board, the smoke from which is conveyed through the bird's neck and out at its nostrils, the woodwork being protected by a safe water casing round the flue. In the breast of the bird is a ladies' cabin, fitted up as a boudoir. The fittings also include a pumping apparatus, a fresh water tank, and lockers innumerable for the storing of every necessary. The whole interior is either covered with morocco or delicately painted. The steerer sits high in the tail of the bird, and, with halyards in hand, controls the vessel as easily as the driver does his horse. Behind the neck is an aperture large enough for a man to get out of when the sails require reefing or the anchor lowering. The Swan's register is about five tons, its internal capacity 500 cubic feet. When fully stored, and carrying 15 persons, its draft of water is only 17 inches.

POISON IN FINGER RINGS.—All visitors to Paris will have noticed the shops of *bric-à-brac*, or objects of curiosity and *vertu*, so numerous and tempting in that capital. At one of these establishments, in the Rue St. Honore, a gentleman was engaged a short time ago in examining an ancient ring for sale there, when he accidentally gave himself a slight scratch in the hand with a sharp point of it. He continued talking with the dealer for a short time, when he felt an indescribable numbness and torpor taking possession of him, and paralyzing all his faculties, and soon became so ill that the people in the shop hastened to call in a physician. The doctor immediately declared that the gentleman had been poisoned by some powerful mineral substance, applied strong antidotes, and was fortunate enough to relieve the symptoms which had caused so much alarm. The ring was then examined by the medical man, who had spent some time in Venice, and who found that this old jewel was what is there called a "death ring," a class of ornaments in frequent use in Italy during the seventeenth century, when the habit of poisoning was all but universal. Attached to the part of the ring intended to be worn inside the finger are two minute lion's claws, of the sharpest steel, and having clefts in them filled with a violent poison. In a ball or other crowded assembly, the wearer of this fatal ring, wishing to exercise revenge on any one present, would take the victim's hand, and when pressing it ever so gently the sharp claw would be sure to inflict a slight scratch on the skin, and the victim would be equally sure to be dead before the next morning. Notwithstanding the length of time which must have elapsed since the poison was secreted in the ring in question, it was still powerful enough to cause great danger, as has been seen, to the gentleman who had so unwarily touched it.

AMUSING EXPLOSION OF A BARREL.—The following funny incident occurred on the 30th ult. at the railroad engine house at Springfield, Mass. One of the engineers, not having the fear of the constable before his eyes, had wickedly purloined an oil barrel which he designed to fill with cider; but how to remove the smell and taste of the oil, to fit it for such a purpose, rather puzzled him. In this momentous emergency he took counsel from a friend, who mischievously advised him to fill it nearly full with unslacked lime and water. This was done, when lo!, the barrel was soon at high pressure and exploded, throwing the engineer some distance into the air, and landing him astride of an engine smoke stack with a hoop in each hand. No further harm resulted.

The Philadelphia papers employ glowing terms in describing a new steam fire engine built for that city by the Portland (Maine) Locomotive Company. It weighs only 3,100 lbs., has a steam cylinder of 8-inch bore and 9-inch stroke.

ANCIENT CHURNING PROCESS.—The mode of churning in Fayal, one of the Azores, is to tie the cream up in a goat skin, and kick it about till the butter comes.



ISSUED FROM THE UNITED STATES PATENT OFFICE FOR THE WEEK ENDING NOVEMBER 6, 1860.

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. Pamphlets giving full particulars of the mode of applying for patents, size of model required, and much other information useful to inventors, may be had gratis by addressing MUNN & CO., Publishers of the SCIENTIFIC AMERICAN, New York.

30,555.—F. C. Adams and Joseph Peckover, of Cincinnati, Ohio, for an Improved Hinge:

We claim forming a hinge by the combined use of the large cut under recess on one part, and the projection b c d, or its equivalent, on the other part, and the molten zinc, or other easily fused metal, run in between them, substantially as and for the purpose set forth.

30,556.—C. E. Atherton, of Paterson, N. J., for an Improvement in Vapor Lamps:

I claim the combination and arrangement of the gas receiver, the self-acting valve or gate at the top of the generating tube, with the use of the metal rod and beveled pin, substantially as and for the purpose set forth.

30,557.—M. H. Bacon, of Mystic, Conn., for an Improvement in Machines for Dressing Stone:

I claim, first, The arrangement of the vibrating frame, G, with the lever, M, and the spring, K, for increasing the force of the blows at pleasure beyond that due to gravity alone.

Second, The employment of the checking spring, J, in combination with the vibrating frame, G, and lever, M, or their equivalents substantially as described, for diminishing the force of the blows at pleasure below that due to gravity.

Third, The arrangement of the recess, r, in the vibrating frame, G, the stop, B, on the sliding frame, C, and of the gearing, H and O, substantially as and for the purpose set forth.

Fourth, The employment of the sieves, T, operated by the screws U, or their equivalents, for adjusting the height of the cutters, S, in the cutter frame, F, in combination with the means for adjusting the inclination of the several cutters, S, in their respective sleeves, T, substantially as set forth.

30,558.—Wm. B. Barnes, of Forestville, Conn., for an Improvement in Clocks:

I claim the arrangement of the verge, g, detent, k, triangular shaped escape wheel tooth, o, in combination with a pendulum, n, substantially as and for the purpose described.

I claim, in combination with the arrangement above described, the arrangement of the pointer spindles and gearing attached thereto, substantially as and for the purpose described.

30,559.—John Beaumont, of Hartford, Conn., for an Improvement in Coffee-pots:

I claim the arrangement, in the manner and for the purpose specified, of the coffee-pot, a, provided with the liquid joint, f, the receptacle, b, having the perforated bottom, c, and perforated cover, e, and the condenser, d, provided with the cavity, i.

30,560.—N. Brittan, of Lockport, N. Y., for an Improvement in Lightning Rods:

I claim the construction of lightning conductors with parallel continuous strips or tubes of metal held at a distance apart and united by intervening washers or blocks, substantially in the manner and for the purposes specified.

30,561.—M. A. Butler, of Mariana, Florida, for an Improvement in Compositions for Soap:

I claim the described soap composed of the ingredients specified, and mixed together in about the proportion described, for the purposes set forth.

[The object of this invention is to produce a cheap soap which can be used in water containing mineral or metallic substances equally well as in ordinary soft or pure water.]

30,562.—C. F. Chambers, of Chambersburg, Ind., for an Improved Washing Machine:

I claim the combination of upper rubber, D, adapted to reciprocate on stationary ways, C, and the swinging lower rubber or board, E, adapted to be elevated from the tub, and to hold the clothes stationary for the upper rubber to act upon, or to be depressed at will, as and for the objects set forth.

30,563.—A. B. Colton, of Athens, Ga., for an Improved Spike for Threshing Machines:

I claim the combination of reversible spike, A A s, flanged and shouldered plates or rings, C a g h d, and screw bolts B, substantially in the manner and for the purposes described.

30,564.—James Davies, of Schnylkill Haven, Pa., for an Improvement in Canal and River Locks:

I claim, in combination with a lock-chamber, a passage or passages through which the water may flow back into the upper level, when a boat enters the lock from above, and through which water may flow into the chamber from the level below when the boat is leaving the lock, substantially in the manner and for the purpose set forth.

30,565.—S. N. Davies, of Muskegon, Mich., for an Improved Clothes' Sprinkler:

I claim the combination with a suitable bellows of the syphon tube, C, and the barrel, G, with its perforated end orifice, b, and valve, H, arranged and operating as and for the purposes set forth.

30,566.—John Davis, of Elmira, N. Y., for an Improvement in Apparatus for Detaching Horses from Carriages:

I claim the arrangement of the whistle-tree as constructed with the thills provided with the hooks, H H, and springs, I I, substantially as and for the purpose specified.

30,567.—A. K. Eaton, of New York City, for an Improved Gold Amalgamator:

I claim, first, The use of an inferior amalgamated surface, substantially as specified, in contact with the superior surface of a body of mercury.

Second, I claim the combination of the rotary disk, with the hollow shaft and receiving bowl, substantially as described.

30,568.—M. W. Dillingham, of Charlestown, Mass., for an Improvement in Vapor Lamps:

I claim the application of the valve, O, and cup, E, to the wick tube, in such manner as to enable both valve and cup to turn together on the wick tube, and with respect to the lateral discharging orifice thereof, as described.

Also, The arrangement and combination of the cup or thimble, E,