THE NEW TEMPLE EMANUEL.

The above is the name of the new Jewish synagogue recently dedicated situated on Fifth avenue and Forty-third street, New York city. Few buildings ever erected in this country, have attracted more attention, or are more entitled to admiration than this edifice. As a specimen of Moorish architecture, slightly modified to adapt the structure to its destined use, it affords a good study to professional architects and to all lovers of art. It occupies a lot one hundred and four feet on Fifth avenue, and one hundred and eighty-four feet on Forty-third street. It consists of a nave thirty-four feet wide, one hundred and sixty feet long, and seventy two feet high, with transepts of about ninety feet in length, attached to which are aisles about twenty feet wide, containing the galleries. In front, on either side of the nave, rise two towers detached above the aisle walls, but connected with the nave by two bridges on a line with its ceiling and with the choir gallery, as well as by open balconies running all around the front. These towers are to be about one hundred and seventy feet high, and are to terminate in stone cupolas, the surfaces of which are to be covered with relief ornaments. The building is built of sandstone, out of the New Jersey, Cleveland, and New Brunswick quarries-each of these being used and a ranged with reference to its color. The entire cost of the structure and ground will amount to nearly a million dollars. The architects elected by the building committee were Mr L-opold Eidlisz and Mr. Henry Feu erbach.

The Evening Post gives a graphic description of the new temple and designates it as a "poem in stone :"

"All admirers of fine architecture will first be impressed with the façade Its fine proportions. varied color, and rich ornamentation are elements of beauty worthy of close study. The openings of the nave-the five entrance doors, the rose window and the transverse gallery near the apex-together with those of the tower crowned with open octagonal domes, are so many distinct forms hapily grouped and tastefully treated The ornamentation throughout is honest, appropriate, and rich. Foliated capitals, delicately sculpture i, and clustered columns attached to the doors and windows, fretted spandrils and light pionacles, rising like winarets from the buttresses of nave and transepts, supply imaginative points of great value in the matter of expression. The bright cream. colored pinnacles relieving against a blue sky and on the brown rubble, sparkling like so many jewels in their setting, animate the entire front and forestall anything like monotony of outline. Various intaglio designs, consisting of intricate mazes of lines peculiar to the Moorish system of decoration, fascinate the eye and enliven surfaces that would otherwise appear sombre. This fine combination of ample forms and ornamental devices, each in appropriate relationship for use and beauty, secures to this building an elegant and majestic air, which more ostentatious structures of greater magnitude fail to convey. The secret of this effect does not lie in size or in richness of decoration, but in proportion, a quality of all others in architectural art the subtlest and most rarely encountered.

USE OF COLOR.

"Attractive as the exterior is, the interior far snrpasses it. 82,079.-MANUFACTURE OF ARTIFICIAL FUEL.-George H. On entering the building we seem transported to another Bronson, New York city. Iclaum the process of making artificialfuel in which pitch or other similar material is used to produce the agglomeration of the articles of the sub-stance or substances which constitute the basks of the fuel, by erst heating the coal or other substance, and, while it is heated, introducing among it the pitch or other similar material in a powdered state, substantially as herein described. FOR THE WEEK ENDING SEPTEMBER 15, 1868. sphere. Here we enter on the realm of color; forms seem to Reported Officially for the Scientific American. have vanished or to resolve themselves into radiant splendor. Color as an architectural element appears to reign supreme : PATENTS ARE GRANTED FOR SEVENTEEN YEARS, the following we have that which the Orientals, the acknowledged masters being a schedule of tees: -82,060 — APPARATUS FOR DOMESTIC MANUFACTURE OF GAS. John W. Brown, Wooster, Ohio, I claim, 1st, The refort, D. no combination with a gas apparatus adapted to domestic use, and as described, construct d substantially as set 10,700. 21, The arraingement wherevy the apparatus is made self-regulating, by the pressure of the gas in the gas holder, substantially as shown and de-scribed of this element of art, most delighted in. The problem they bave solved through the skillful handling of ornament, and a consequent distribution of color, is the production of genesoribed. 3d. Using the surplus gas as fuel, either under the retort for generating gas, or lor other purceses, by the automatic arrangement, substantially as ral effects not only pleasing in themselves, but also harmonizing with the constructive masses. The Jews in their Bisecribed. 4th, in combination with a gas apparatus, the washer and tar receptacle, and purifier, K when the same are constructed and arranged substan-ally as described. 5th, The rake, I, in the retort, substantially as and for the purpose set forth. ble, and the Mohammedans in their Koran, prohibited from In addition to which there are some small revenue-stamp taxes. Residents depicting animated forms, have been obliged to make the of Canada and Nova Scotia pay \$500 on application. most of color on its own merits; color, consequently, is their 82,081.—CHAIR SEAT —E. L Buckingham, Jefferson, Wis. I elaim the strips, b, composing the chair bottom, secured in the rais, A, by being passed over and under said rails, the ends being iose ted in oblique slots, a, and there retained by the strip. (C, applied t) the outer edge of the rails, A, all sub stantially as berein shown and described. principal decorative medium. Yellow or gold, blue, red, IF Pamphletscontaining the Patent Laws and full particulars of the mode black, and white are their vehicles of art expression. All of apply ng for Letters Patent, spec fy ng s ze of model required, and much muddy compounds of hybrid tiats, miscalled color in many other nformation useful to Inventors, may be had gratis by addressing MUNN & CO., Publishers of the Sc entific American. New York. 82,082. -CARRIAGE SPRING.-Azro Buzzell, West Fairlee, Vt. modern pictures, are completely ignored. The only figures I claim my improved arrangement of the threesprings A B C, as described, without any connection extending from or about from the middle of one price, B, to or about to that of the spring, C, the whole being as shown in they employ are delicate arabasques, and patterns arranged 82.058 -MORTISING CHISEL. Otis Adams and James Hatch. in a capricious but still regular manner, and which, adapted the drawings. San Francisco, Uzal. We claim making the lips beveled from the edge to the mainpart of the chizel, and with the ends beveled and inclined, as herein set forth. 82,083. -LUBRICATING MATERIAL.-Calvin Carpenter, Jr., Astoria, N. Y., assignor to H. H. Wolcott, New York city. I claim a lubricating material prepared from crude petroleum, in the man-ner, hove set forth. to the eye in conformity with its sensuous aptitude challenge chisel, and with the ends beveled ant inclined, as herem set forth. 82,059.—LAMP BURNER.—Thomas Adams, Hudson City, N. J., asignor to himself, J. Romer, and H. T. McConn, Brooklyn, N. Y. I claim, 1st. The flattened, cone shaped wicktube, A, provided with a tri-angular opening, f, for admission of airin front, as it sere, of the single wick, to establish a current brough the center of the flame, and constructed so that in the passage of the single flat wick through it in a straight line, or the reabouts, from pelow, said wick is maile to assume an annular form at its exit from said the, substantially as specified. 24. The arrangement of the wick lifer or operating device, E, relatively and for oper ynon in connection with the latter to bar and convert the wick from af it or straight into a round or annular form, essentially as herein as stree of the tame and twided, as ach (for ning a cap. D), between the onlar screw of the tame and divided, as ach (for ning a cap. D), between the onlar screw of the lame and raft opening or openings to the flame, as and for the purpose. no criticism on the score of their non-resemblance to known natural objects. Gorgeous hues, therefore, in true complenor above set forth. 82,084. -ANGULAR SHAFT COUPLING.-John M. Case, Wormentary union, cover the spacious walls of this elifice ; the thington, Obio. I claim, ist. Forming the bars, upon which the segmental cogs. E, are cast i.d. subtantially as berein shown and described and for the purpose act eye wanders over them attentive to their innumerable hars-lid, substantially as berein shown and described and for the purpose set forth. 2d, Formingrims of 2 anges upon the sides of the segmental cogs, E, for the purpose of providing their lateral movement, and rellevis the side presmonies as the ear listens to the infinite harmonies of musical sounds. Draped arches, festooned with divers tints, support purpose of provembing their lateral movement, and relieving the sure upon the connecting bars, F. as herein shown and described 82,085.—WRENCH. Luke Chapman, Collinsville, Conn. I claim the combination with the jaw A, provided with the recess, B, annular groove, C, of the nut, D, and the spring ling, E, substantially as for the purpose set forth. blue panels decked with golden stars, while the stained glass windows, more like luminous interstices than anything else, pour in a flood of prismatic brilliancy to blend all together in soft and radiant light. The obscurities of the triforium, the 82.086.-CAR WHEEL AND FROG.-W. H. Childe, Gaines-82030. -CULTIVATOR -A. H Allison, Charlottesville, Ind. ville, Ala. · I claim uniting railroads of different gages by means of a frog applied at the junction of two or more trecks, in i const ureted as described, and by railroad wheels being employed forether, but one for user also permitting wheels with a single tread to pass over it, all substantially as described. sanctuary, the organ-loft, and other spaces, lend an air of 22 00. -COLLITVATOR. - A. II ATHSON, Charlottes ville, Indro-vided with the adjusting blocks, e.g. in combination with the beams, G G, up rights, if, provided with adjusting blocks, double tree, c, wirns, c'c', and braves, conn-cting the ends of the yoke with the main frame, all constructed, arranged, and op-rated in the manner and for the purpo-e set forth. 21, The seams, G G, binged to the adjusting block, g g, and provided with the shanks, i, and braves, h, in communiton with the bails, J, and foot pieces, Z Z, all constructed, arranged, and operated as set iorth. mystery to the general tone, which is again enhanced by the dark reflections of the richly carved wood work. The general effect is one of subdued richness, an effect in harmony 82 087.-MEASURING FUNNEL.-Charles Chinnock, Brookwith a spirit of adoration, and with that instinct which leads lyn, N. Y. I claim the arrangement within the funnel of the stem, B, carrying the man to exalt worship by art. 82,061.—SCHOOL DESK -Herbert L. Andrews, Chicago, Ill. 1'claim, 1st. The standard, composed of two parts, A B. one provided with the projection, g, and axie, 1, and the other with the flange, a, in combination with this arm, G, the standards being secured by the selews and nuts, all sub valve, c. at is lower end, whereby the weight of the funct constant is to we we and whereby the weight of the funct closes the valve when the latter is suspended by the stem for filling, substantially as herein set tor'h. "The use of color in this building will attract all eyes to it, and make it a model for imitation far and wide. Mr. Eidlitz 82.088.-FEED BAG.-Charles Chinnock, Brooklyn, N. Y., bisinerity as specified. 2d. The Combination and arrangement of the recess, b, when filled with rub-fer, or ott. relastic material, stand ru, B, and projecting need, b, of the arm C, substantially as and for the pu poses specified. 82,032.—ELACK BOA ND. Herbert L Andrews, Chicago III. I claim the blackmard, A, when provided with the groove, a arms, c, pins or hooks, c, and supported, constructed, and operating substantially as speci-fied. which the arm is a solution and arrangement of the recess, b, when filled with rub-2d. The Complication and arrangement of the recess, b, when filled with rub-ber, or other relastic material, start er, B, and projecting neel, b, of the arm C, substantially as and for the ph poses spacified. assign r to J. Little Hyde, New York city. I claim the combination of the engless cord, c, and pulleys or slides, b, with the fee bag, A, all arr menes and operating essentially as we forth. has used color elsewhere, and notably in St. George's Church, but no where on the same grand and effective scale as here 82.089. -CULTIVATOR. - Joseph H. Clifton, Newcastle, Pa. Decorative motives generally consist of meaningless imita-I claim, 1st. The heard, A, province d with the koives, a, etc., and teeth, b, as a of or the purpose set for h. 2d, the board, A, in combination with the bar, c, and teeth, c', as and for the purpose set forth. tions of Renaissance ornaments, mouldings, pauels and tracery bolstered up with artificial shadows, expressing no sen-82,063.-LEATHER STRETCHING MACHINE.-W. R. Andrews, timent and symbolizing no truth. Color, as here employed, 82,090. -SHUTTLR.- Nathan Clough, Lowell, Mass., and and Robert Dingwell. Newaik, N.J. We claim. 1st, The movable beam, B, in combination with the cross slat, C, When constructed and operated substantially as and for the purpose set forth. 2d, Operating the movable beam, B, by means of theratchet bars, E E, and James Balvavia, Manchester, N. H. We claim a shuttle naving its tip-shank riveted to the wooden plug, and the plug secured in the shuttle, as herein described. conforms to natural law, and is therefore a truth in itself. None of its combinations suggests the intellectual perversity

associated with Renaissance symbols so conventionally applied to public and private edifices everywhere."

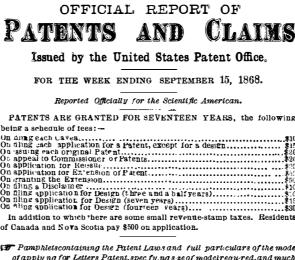
VENTILATION.

The Journal of the Franklin Institute, contains the first, or a part of the first of a second course of lectures on ventilation. delivered by Lewis W. Leeds, before the Franklin Institute during the winter of 1867-'68. There seems to be such an itching for scientific laurels at the present time, that the most common subjects, upon which all that is pertinent can be said plainly and briefly, are made the vehicles of professional display ad nauseam.

The subject of ventilation is an important one, and perbaps is not appreciated as it should be, or sufficiently provided for in either public or private edifices. Grant all that; but does it follow, that in order to cure the evil, long harangues upon the constitution of air, the physiology of respi ration, the anatomy of the lungs, and the circulatory system, the diffusion of gases, and all the technical information in the remotest degree connected with the subject, should be aired in trying to convince people that unless they breath pure air their health will suffer? The first installment of these lectures treats of all the above-mentioned subjects, and more too. How much is to follow before the real gist of the subject shall be reached, we are unable to say. Perhaps a discussion of the respiratory apparatus of fishes and reptiles, with some accounts of toads which have been imbedded in rocks for nobody knows how many centuries, without breathing, and have emerged from their rocky prisons, "fresh as when in their pristine youth, etc," and hopped away without even thanking their deliverers. This might be made applicable to the subject of ventilation, as thus: The toad does not breath in the same way as man inhales the ambient air, consequently what is fun to them, would be death to you, my hearers Moreover, all the stories of living toads, imbedded in rocks and trees. are humbugs-except the trees were hollow and the rocks had holes in them-from which we conclude that man could not breath without air, or live without breathing. Quoderat demonstrandum.

How to get the pure air is the question ; a purely mechanical one. Hot air rises-cold air falls. The impure gases do the same thing; therefore it is only necessary to provide for the escape of foul gases at the bottom of a room, provided it is heat-d with warm air or at the top, if heated by radiation; the pure air being admitted in the latter case through openings protected so that strong currents shall not be formed, and the exchange of air being fully provided for by passing the vitiated gases through heated flues, or drawing them off by fans or other apparatus.

There is the whole thing in a nutshell and all the scien tific discussion of things upon the earth or under the earth can't make it more sc ; so the SCIENTIFIC AMERICAN believes and we believe its practical readers will concur.



screws, D D, when constructed and arranged as specified, and for the purpose a set forth.

82,064.-STOCK PUMP.-W. T. Armstrong, Freeland, Ill. 182,064.—STOCK PUMP.—W. T. Armstrong, Freeland, III. I claim the oox pamp. E, constructed as described, in combination with the stationary paper, F, rod, D, and the compound hang: d piatform, B C, all constructed and arr agest to operate substantially as shown and de cribed. 82(0) 5.—MOLDING PIPE — John Aston, Pittsburg, assignor to Wilham Smith, Allegheny City, Pa. I claum, 1st, The combined arrangement of the flask, G, and hinged door G e, substantially as described. 2d Die pit, A. Jurnaces, B, with their flues, C, and outlets, CC, ramming up stools, D, stoppers, E, nozzle, F, and sliding thumbler, FF, the bars, K, and shale pates, L, whencombined arranged substantially as herein described and for the purpose set forth.

^{2d} The pit, A. furnaces, B. with their flurs, C. and outlets, Co, ramming up stools, D. stoppers, E. nozzle, F., and sliding thmlb-., Fr, the bars, K., and slide p-ates, L. whencombuled and arranged substantially ashere in described and for the purpose set forth. 3. Drying pipe molds by means of passing currents of heated air or gases through them, without removing them from the pt in which the operations of molding and casting are carried on, substantially as described. 28.0% - JuURNAL BYX. -John E. Atwood. Mansfield, Contl., assignor to himself, A. Sprague, and W. Sprazue, Prividence, R. I. I caum the annular rise of collars, B⁺ near each end of the Lournal, in combination, with the case or shields, D, and the chambers, C⁺, provide i in the journal box, all arranged substantially ashere in set forch, for the purpose specifie.

S2 067. -SHINGLE MACHINE. -J. E. Austin Osweg , N. Y.

Leain, 1st. The method of operating the tilting taoles, W F, namely, the projecting arms, t, obliquely slotted side bars, H h, the hooking connecting roads. It, and crank wheels, J having adjustable wrists or crank puns, all ar-ranged and operating as berein shown and described, and for the purpose set forth. 24, In connection with the tables E the letter.

forth. 24, In connection with the tables, F, the laterally adjustable plate and socket block, N II M, and vertically adjustable fuleru a olock, K L, construct-ed and op. rading as n-rede show on, and for the burrose describe 1. 3d, The bolt cutters, C C, baving a horizontal movement on frame, D, and provided with wedges, ss, for acting on incluned surfaces of said frame, D, in such manner that all sides of the bolt holders arelifted alike, in connec-tion with t.ppet lever, R, and ink, P, or other surface device for obtaining the sliding movement of bolt holders on irams, D, as and for the purpose described.

82,058.—WAGON AXLE. C. D. Bachelder, Camden, Me.

82,068. — WAGON AXLE. C. D. Bachelder, Camden, Me. I claim, ist, The combination, with an axterprovided with an oil rec'ss, b, of the dap, g, arranged oil ugit, the enn, and provided with a slot for the wick, substantially as and for the purpose described. 24. The rec'ss, b, provided with the divising rib. c. having a recess, d, for the wick, communicating with the recess, b, by the holds, e, substantially as and for the purpose set forth. 82,069. — WAGON JACK — E. R. Baldwin, Southfield, Mass. I claim the c. mbination, with the bracket, B, and stand. A. or the frontion roll rs and b, when applied and arr ngred as and for the purpose set forth. 82,070. — KNOB LATCH. – T. C. Ball, Bellows Falls, Vt. I claim the combination of the lock ring, b, slots, c, and projections, k k, with and between the plates. rescu cheon, b, and its projections, k and e', and the ring, g, with its slot, i, all operating together as and for the purpose Statistic. Comparison of the lock ring. Content and the ring of the plates.

82 0/1.- ENAMEL FOR WINDOW-SHADES Edward C. Ban-Storda.
Storda.
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82,074 -- PLANE.-Valentin Bitsch, St. Louis, Mo.

i claum the combination of the bit, a, having its lower cutting edges to form a re-entering ang e, with the open shake bit, a', having its lower cut-ting edges arranged with beveled corners, ac ing with the olans stock, A, to form blind slats, whose narrow edges are chamlered, substantially as set

North. Sind outer, works and out the set of the statistic of the set of the s

82,077. -- MACHINE FOR FORMING EAVES-TROUGHS.-John Brett, Memphis. Mich.

Brett, Memphis, Alch. I claim the e-west rough former constructed as herein described, of the grooved bed plate, A. crimping clash, F, hinged there's, with its hinged continuition, H I, and slotted roller, D, all arranged and constructed as herein shown and described.

82,078 - SAW SHARPENING DEVICE. - P. M. Bristol, Ludington, Mich. I claim the swaging apparatus consisting of shaft C, wheel, D, and rest, E, arranged and combined substantially as described.