

boy can turn out from fifty to one hundred gross a day. Surely, the old cork-cutter of the past is ambitious of being a fossil—he longs to be one atom in the strata which we are constantly burying and leaving, in our upward march of earth! But, if "Young America" is bright in invention, and can dash out a cork, has not this great country (head of the machine-making world) a new branch of trade brought to it, in the shape of the new cork-cutting machine? By no means. There is conservatism also in the trade of engine-making. The patentee of the machine finds that he can carry the iron from England to America, have the machines made in America—and they do not accept low wages there—and bring it back to England cheaper than he can have it made in England. Now why is this? The reason is as plain as the cork from your bottle of champagne. In the making of the machine, a machine is used; in that prior machine there is a certain shaft, which shaft, in England, is formed turner-wise, by hand, in America it is done by machinery. There they make the machines to make the machines that make the machines of the cork-cutter."

Explosion in a Coal Mine.—An explosion of gas in a coal mine occurred in the early part of March at Burraden, Northumberland, by which 73 men and boys came to a ghastly and untimely end. About 120 men were employed in the mine, which was of immense extent, one passage in it being more than a mile in length. The gradual accumulation of the gas had been perceived for more than six weeks, and several of the men had left the mine from fear of an accident. A slight preliminary explosion gave warning to a portion of the hands, a few of whom escaped in consequence. The principal explosion was of tremendous force, destroying the machinery and wagons, and instantly killing the larger portion of the persons employed.

REMARKABLE DISCOVERY AT ROME.

The *Detroit Advertiser* (of March 24th) publishes a private letter, written by Lewis Cass, Jr., to Rev. Mr. Duffield, of Detroit. From this letter we make the following extracts:—

"In the progress of the excavations on the Palatin, where stood the house-of-gold of the Cæsars, a fragment of an arch, covered with inscription and delineations, was brought to view. Further explorations in the same direction resulted in the exposure of a room, on the walls of which was found a sketch, cut or engraved with a sharp-pointed instrument, of a crucifix, together with the figure of a man in the attitude of prayer, standing near it. The announcement of this discovery created great interest. By order of the Pope, the design was removed from its position, happily without injury, and confided to the care of Monsignore Macchi, who invited me to inspect it, and by whose permission I procured a copy to be made, which is herewith enclosed. It is needless to say that this event has elicited elaborate speculations. Notwithstanding a general discrepancy, the conflicting views concur, with scarcely an exception, in the conclusion that the aim of the sketch was to cast ridicule on the worship of the Christians. It presents the outlines of a cross, on which is a human figure bearing the head of an ass. A tunic envelops the waist, and the arms and legs are partially covered with bandages. To the left, with one hand raised in the posture of adoration, as depicted on ancient monuments, appears the form of a man, while below is seen the following inscription, 'Alexander adores God.' The execution of the engraving, as you will perceive from the *fac simile*, of which the scale is one-fourth smaller than the original, indicates an entire ignorance of art, being stiff and hard, without ease or grace whatever. Satisfactory evidence refers the date of it to the reign of Septimus Severus. There were numerous Christians in his court, one of whom, it is supposed, of the name of Alexander, was thus exposed to ridicule by his pagan associate or companion.

"Familiar as you are with the early history of our religion, it is unnecessary to recall to your recollection the existence of the legend, current throughout the Roman dominion in the days of the empire, that the Christians worshiped a divinity whose head differed in no respect from that of an ass. In Africa, then filled with rich and splendid cities, this was the popular belief. It was inculcated in the Magian school of Asia, from the sands of Parthia to the Pisidian forests, and levelled at the con-

verts to the strange faith in the streets of Nartheodes, Amida and Mardin-on-the-Hill. The later Gnostics in particular, more especially the sects of Bardesanes, omitted no occasion to disseminate this calumny, accompanied with every epithet of contempt and detestation. At Orla it was proclaimed from the throne in the sounds of trumpets, followed by a decree prohibiting the use of arms and the Arabic language to the worshipers of the God of Nazareth, and requiring them thenceforth to wear girdles of leather in token of their obnoxious creed. We meet with it in the writings of Tacitus, a bitter and relentless enemy to the Christians, whom he styles outcasts of the human race. It is also alluded to in the pages of the contemporary fathers, by whom it was repelled with vehement and irrepressible indignation. The origin of this monstrous invention is lost to us. There can be little doubt, however, that it had its foundation in the hatred with which the disciples of the pure and spiritual doctrine were invariably regarded by the idolatrous nations among whom they lived. But whatever the source, the first mention of this calumny occurs in the records relating to the period intervening between the years 120 and 250 of our era, subsequent to which epoch all trace of it disappears. Precisely during the same period the room in which the design was found was constructed. The palace of the Cæsars on the Palatin, as you are aware, was the growth of successive reigns. That part of it which embraces the chamber in question was built by Hadrian, as the bricks of which it is chiefly composed attest. They are impressed with the names and titles of the Consuls Pactus and Apronicanus. This coincidence—the prevalence of the legend in the years already mentioned, and during that period only, and the erection within the same time of the wall on which the drawing is traced—establishes satisfactorily the purpose of the sketch, as well as the date of its execution. Still more conclusive, perhaps, is the manner in which the figure upon the cross is presented to view. It is delineated with drapery, while it was the invariable practice in executions of this nature—a mode of punishment very common among the Romans—to expose the victim or criminal in a state of nakedness. The discrepancy finds its sole warrant in the tradition that our Lord was put to death with a garment about his loins, and its admission in a work emanating from the hands of a pagan whom we cannot suppose to have been influenced by any sentiments of awe or respect, and whose experience would never have suggested such a departure from the uniform custom, indicates clearly a caricature, of which the first requisite is uniformity to its prototype. Finally, the words, 'Alexander adores God,' admit of no other interpretation; nothing in history, legendary or monumental, tending to the idea that the symbol of a crucified being was ever regarded as an object of veneration by any other sect than the followers of Christianity."

LITERARY MONOMANIA AND DISHONESTY.—The foreign papers report that recently, at Leipsic, a case of singular monomania led to a most deplorable result. Dr. Lindner, a professor of theology at the University of that town, was tried for the purloining of manuscripts from the Academical Library, and sentenced to six years' penal imprisonment. The unfortunate man had allowed himself to become the slave of a paramount passion for old parchment. To know a fine, rotten, and worm-eaten codex to be within his reach, yet not in his possession, was too much for the moral strength of this *savant*, otherwise of irreproachable character. Beginning with the abstraction of one or two remarkably fine pages from some manuscript or other, he gradually proceeded to entire volumes, and, during a space of four years, despoiled the library of a great number of priceless rarities. This, though it might have eventually brought about his expulsion from the University, would have scarcely subjected the bibliomaniac to the penalties of the criminal law. But, with a looseness of principle which the jury found it impossible to overlook, Dr. Lindner occasionally bargained away his ill-gotten treasures for others, receiving the difference in money whenever there was a disparity in the value of the manuscripts exchanged. But for the great liberty granted to German professors in the use of public libraries, his criminal proceedings must have been discovered long ago, as his dishonesty was certainly not greater than his folly and want of the most ordinary caution.



ISSUED FROM THE UNITED STATES PATENT OFFICE:
FOR THE WEEK ENDING APRIL 3, 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.

27,675.—John R. Albertson, of East Deer township, Pa., for an Improvement in Garden Hoes:

I claim shank, b, shoulder, c, dovetail, d, washer, e, blade, a, with the opening, A; the whole being constructed and arranged as and for the purpose set forth.

27,676.—Edward H. Anderson, of Easton, Md., for an Improvement in Vapor Burners:

I claim the original arrangement of the apparatus set forth, and the new and useful adaptation of them to the purpose of producing a light which will be economical in cost, and which will be entirely exempt from the danger attending many other gas lamps.

I also claim the invention of a new and useful mode of procuring light by the combination of atmospheric air and heat, by means of my original adaptation of the jet holes, N N, in the upper end of the conducting pipe, A, acting upon the under surface of the chamber, D; the blow-pipe principle of the jets producing the requisite heat to manufacture the gas as required for the support of the flame, and which combination enables me to raise the flame above the entire apparatus, thus rendering it clear of all obstructions; all constructed and operating as set forth.

27,677.—Edward Armstrong, of Pittsburgh, Pa., for an Improvement in Governor Valves of Steam Engines:

I claim dividing the valve-chamber of governor valves into two compartments, by means of the division plate, c, provided with valves, j and i, constructed, arranged and operated in the manner described and for the purpose set forth.

27,678.—A. Merritt Asay and J. Lambert Asay, of Philadelphia, Pa., for an Improvement in the Method of Fastening Artificial Teeth:

We claim fastening artificial teeth to a metallic plate by interposing between the said teeth and plate a strip of vulcanizable gum and vulcanizing or hardening the same; the teeth having been adjusted to the plate, as set forth.

We also claim packing with gum the interstices between the teeth and plate or between the teeth themselves, when secured to the plate by riveting or any other of the usual modes, and vulcanizing or hardening the packing after it has been adjusted, as specified.

27,679.—Geo. K. Babcock, of Utica, N. Y., for an Improvement in Measuring Faucets:

I claim connecting to the slide or valve of a faucet, a scale beam or weighing device, arranged to operate as shown, or in any equivalent way, so that the substance to be drawn may be measured by its weight.

I further claim the combination of the scale beam, I, pawl or catch, H, arm, F, lever, D, and valve rod, C, with its valve, B, fitted within the tube, A; all arranged for joint operation substantially as and for the purpose set forth.

27,680.—John Bailey and John Decamp, of Cincinnati, Ohio, for an Improved Spring Bed Bottom:

We claim the arrangement of the side rails, A, transverse rails, B, springs, B d d', slats, C, and straps, E; the whole being constructed and combined in the manner and for the purposes set forth.

27,681.—W. M. Baker, of Walpole, Ind., for an Improved Refrigerator:

I claim the arrangement of a sheet, B, of canvas or other fibrous material, in combination with the grooved and perforated or slotted side, a, b, of the case, A, and with the reservoir, C, or its equivalent, constructed and operating substantially in the manner and for the purpose specified.

[This refrigerator belongs to that class in which the evaporation of water or other fluid is employed for the purpose of cooling articles kept within it: and the invention consists in the arrangement of a piece of canvas or other fibrous fabric over the corrugated or slotted inclined sides of the case that incloses the articles to be kept cool, in combination with a perforated reservoir on the top, and with a receptacle on the bottom, in such a manner that water or other fluid poured into the reservoir on the top is spread by the canvas or other fibrous fabric over an extended surface, where it is rapidly evaporated by the influence of the air that is allowed on both sides of the same, and that by such rapid evaporation, a pretty low temperature is effected and maintained in the interior of the case.]

27,682.—L. B. Batcheller, of Rochester, N. Y., for an Improvement in Machines for Manufacturing Barrel Heads:

I claim the combination and arrangement of the passive disk, C, with the clamping disk, C', hollow cam shaft, G, and foot lever, L, together with the cord, J, for actuating the saw table, U, simultaneously with the clamping of the staves, and the pawl and lever, P, operating conjointly, substantially as and for the purposes set forth.

I further claim the application of the lugs or hooks, k, k, to the clamping disk, C', for the purpose of sustaining the staves while being supplied to the disks, substantially in the manner set forth.

27,683.—H. N. Bill and J. C. Bill, of Willimantic, Conn., for an Improvement in Scales:

We claim, first, The combination of the weighted lever, D D', dependent rod, E, vibrating rod, F, perpendicular scale rod, G, and swinging arms, J, arranged and combined substantially as described and represented.

Second, We claim the slotted index hand, L, hung on an isolated center from the fulcrum of the weighted lever, D, in the manner and for the purposes set forth.

[This invention consists in the employment of a gravitating lever, in lieu of a spring or movable weights that are at present in use, and in hanging this lever in a novel manner so as to be effected by the scale beam or a weight placed in the scale pan, and thus register the exact weight of any article placed on the scale beam. It also consists in a novel manner of hanging the registering index hand, so as to compensate for the diminished arc the short arm of the gravitating lever makes as the lever approaches a horizontal line.]

27,684.—Richard F. Bond, of Cambridge, Mass., for an Improved Construction of Clock Weights:

I claim the improved clock weight described, having a groove around its circumference for the reception of the cord, as set forth, for the purpose specified.