

throw off rings on the outside which would be drawn by the mutual attraction of the particles into globes constituting the planets; while the great mass would be drawn together in the center, forming the sun.

Infidels have asked triumphantly how light could have been made on the first day of creation, while the sun, moon and stars were not made until the third day. Religious geologists—such as Professor Silliman, Rev. Pye Smith and Hugh Miller—now insist that the word "day" in Genesis does not mean 24 of our present hours, but immensely long periods of time; and pious astronomers, like Professor Mitchell, have accepted the nebular hypothesis as being in beautiful harmony with the Bible.

Professor J. Stanley Grimes, of Lansingburg, in this State, has devoted most of his time for some years to the study of the nebular hypothesis, and has developed a theory of his own, in accordance with Kepler, Newton and Sir William Herschel, as far as they go, but differing entirely from Laplace in the details suggested by him. On another page will be found a letter from Professor Grimes, briefly expounding his theory. If the theory itself does not finally command the assent of astronomers, the wonderful mathematical law which he has discovered in his investigations cannot fail of, at least, arresting their attention.

AWFUL STEAMBOAT DISASTER.

On the night of Sept. 7-8, the steamer *Lady Elgin* was sunk in Lake Michigan, causing the loss of some 300 lives. The *Lady Elgin* left Chicago at half-past 11 o'clock in the night (Sept. 7), for Lake Superior, having on board three military companies and several fire companies belonging to Milwaukee, who were returning home from a visit to Chicago. At half-past 2 o'clock, when off Waukegan, which is situated in the northern part of Illinois, on the western shore of Lake Michigan, about half-way between Chicago and Milwaukee, the steamer came in collision with the schooner *Augusta*, and sunk in half an hour in 300 feet of water. Just before the collision a violent squall of wind and rain struck the vessels, which were going in opposite directions, the schooner steering East by South, and the steamer North-east. Capt. Malott, of the schooner, says that he saw the steamer's lights, and when he perceived that a collision was probable he ordered the helm hard up, but the vessel "steers wild" and refused to obey her helm, the consequence of which was that she came with a crash against the larboard side of the steamer, just forward of the wheelhouse. The *Augusta's* head gear, jib boom and stanchions were carried away, and, in the storm and darkness, the vessels drifted asunder. As the steamer went down, the hurricane deck broke away from the hull and continued to float on the surface, bearing up Capt. Wilson and a number of passengers who were on it at the time. Others of the passengers supported themselves on fragments of the wreck and on plank life preservers. Though the water was rough it was, fortunately, not cold, and the gale was blowing directly towards the shore, which was about ten miles distant. A large portion of the hurricane deck, though forming a frail raft for so rough a sea, continued to hold together, and, surrounded by hundreds of persons clinging to planks or pieces of the wreck, or struggling hopelessly in the water, drifted slowly towards the shore. Capt. Wilson, as cool as if he was on his own deck, busied himself in fastening loops to the edge of the raft, for persons to cling to in case they were washed overboard. The greatest danger was encountered as the shore was reached in the morning. The waves were breaking in white foam on the beach, and though the shore beyond was crowded with hundreds of sympathizing friends, they were utterly powerless to aid those who were struggling in the waves. The raft was rolled over in the breakers, of course washing off all who were upon it, more than two thirds of whom perished—Capt. Wilson among the number. Numbers of passengers came ashore on other fragments or pieces of furniture. One woman floated alone, the whole ten miles, on a dining table, and though tumbled over and knocked about among the breakers, finally reached the shore in safety. The most intense interest was excited among the spectators on the shore by the heroic struggles of one gentleman who was clinging to his wife with his left arm, while with his right he was battling the waves. He

was repeatedly swept back into the foaming yeast, but, with noble affection, he preserved his hold upon his precious burden, and finally succeeded in bringing her safely to land.

Out of about 400 persons on board, only 98 are known to have been saved.

THE LATE HERBERT INGRAM, M.P., PROPRIETOR OF THE "ILLUSTRATED LONDON NEWS."

We are indebted to Mr. John Cassell, the enterprising publisher of various illustrated works, for the following brief biographical notice of the late Mr. Ingram:—

The late Herbert Ingram was a native of the town which he had the honor to represent in the British Parliament—Boston, Lincolnshire—his family having resided in the neighborhood of that city for generations, as is recorded in Thompson's "History of Boston." In the family of the subject of our memoir a good custom has been kept up of calling the eldest son Herbert, and the honorable member for Boston is lineally the seventh who has borne that name. He was born on the 27th of May, 1811, and is, consequently in his fiftieth year. His early years were spent in his native town, and there he was apprenticed to the printing business. After completing the term of his indenture, he removed to Nottingham, where he carried on business as printer, bookseller and news-agent. In alluding, at an annual dinner, in London, of the News-vendors' Benevolent and Provident Institution, to this circumstance, Mr. Ingram said:—"He knew very well what hard work a news-vender had in carrying on his business, at all hours, and in all sorts of weather. He had been a news-vender himself, and he believed that when he was at Nottingham, there was not a man in the whole kingdom, more industrious than himself. As one instance, he might mention that there was among his customers a gentleman who wanted his paper very early; and he (Mr. Ingram) was so anxious that this gentleman should not be disappointed, that he walked five miles (and of course five miles back), to supply a single paper. On one occasion he got up at two in the morning, and traveled to London to get some copies of a paper, because there was no post to bring them, being determined that his customers should have the paper." His industry had its reward, for he sold above 1,000 copies of that paper in Nottingham alone. That was not the only reward of his exertion.

It was from the experience he had as a news-vender, and in the sale of those very papers, that he thought of the journal with which, up to the period of his death, he was connected. He used to notice that even a very bad wood-cut in an odd number of a paper would make it sell more than usual; and it occurred to him that if they had a number of good engravings, and put them in every paper, a paper conducted on such a principle must succeed. Such was the origin of Mr. Ingram's paper; and whatever its present condition, it is simply owing to Mr. Ingram's immediate connection with the news-trade. The very title was suggested by the fact that many of his customers, especially the more illiterate, would come and ask for the "London News;" they did not care whether he gave them the *Dispatch* or *Bell's Life*, or anything else, so long as it contained the London news: so he thought if the name suited the common people it would suit all classes, and he called his paper the *London News*, putting *Illustrated* before it on account of its pictures.

The first number of the *Illustrated London News* appeared in May, 1842; and it is interesting to trace the gradual improvements introduced, from the somewhat rough wood-cuts to those splendid specimens of oil color painting—one of which, a magnificent view of the Falls of Niagara—was issued with a very recent number of the paper.

Mr. Ingram's long and successful connection with a journal so widely circulated, made him, to all intents and purposes, a public man, therefore on the retirement of Sir Gilbert Heathcote, from the representation of Boston, in Parliament, Mr. Ingram presented himself as a candidate for his native town. There were two other candidates; one retired before the election, the other went to the poll, but Mr. Ingram was returned with an overwhelming majority, namely, 521 to 296. What rendered Mr. Ingram so popular was the fact that he

was born in the town, that he had risen to the position which he occupied by his own unaided efforts, and that he took a lively interest in everything that appertained to the moral, intellectual, sanitary and commercial advancement of his native place. Boston, with all its advantages, natural and acquired, was, nevertheless, deprived of that greatest of sanitary blessings, pure water; and the inhabitants were, in consequence, much afflicted with ague. Through the exertion of Mr. Ingram they are abundantly supplied with the purest water; and Boston is now reckoned one of the healthiest towns in England. Much, however, as the inhabitants were beholden to him for the establishment of the water-works, they owe him as the principal promoter of the Boston and Nottingham Railroad, of which he was the chairman, a deep and lasting debt of gratitude. He was also director of the Great Eastern Steamship Company, and he and his lady were on board the monster ship when the unfortunate explosion took place on the "trial trip."

On the occasion of his election, and while he was addressing the people from the balcony of his committee room, it was mentioned to him that a number of boys were looking up, and listening to what was going on. Mr. Ingram stopped in the midst of his speech, and looking down at these lads said: "I well remember standing like you, on several occasions similar to this, listening to the successful candidate returning thanks to his constituents, and little did I think that I should one day occupy the same proud and honorable position as the elected member for Boston; and you, boys, cannot tell to what you may attain, if you are good, honest, industrious, upright and persevering in your various occupations." It was by such touches of nature as these that Mr. Ingram became so popular at Boston, more especially with the humbler classes of electors. In returning thanks from the hustings, he spoke of the honorable pride which he felt in returning thanks to the inhabitants of his native town, and in returning those thanks on the very spot upon which the house formerly stood in which he was born. At the last election, after the dissolution of parliament, Mr. Ingram was returned for Boston without opposition. He was also a magistrate for the county of Herts, and deputy-lieutenant for the county of Lincoln.

It remains for us simply to state, that the subject of this brief memoir, as well as his eldest son, Herbert, were drowned on board the *Lady Elgin* steamer, on Lake Michigan, and Mr. Ingram has left a widow, seven children, and a large circle of admiring friends to deplore his untimely fate. In his death, the press has lost one of its ablest coadjutors—the public, a benefactor—and the poor, a friend.

The special correspondent of the *SCIENTIFIC AMERICAN*, Mr. Henry S. Olcott, has gone to attend the Fairs of the Ohio Mechanics' Institute and the United States Agricultural Society now in progress in Cincinnati. He will write several letters for this journal, giving an account of all such matters as may be interesting to our readers.

OUR WESTERN CORRESPONDENCE.

Horrible Highways—Stagnation of Trade—An Iron Jail—The Pacific Railroad—Stampede of Settlers—Poverty at Pike's Peak.

LAWRENCE, K. T., August, 16, 1860.

MESSEURS. EDITORS:—On August 9th, I left Kansas City, Mo., by the stage for Lawrence, Kansas Territory, and passed over a very fair macadamized road for about five miles, which brought us to Westport. The laying out of this highway, as is generally the case, is not as good as its surface. People need "line upon line and precept upon precept," in this matter of common roads. When will the authorities discover that the all important point is to secure a good location at first, and leave construction and surfacing till a subsequent period, if there is not money enough in hand to do all that is requisite at the first? Correct locations will never be obtained without the employment of competent and trustworthy engineers. It seems almost futile to hope for much improvement in this respect out West; there is such a rage for running the public roads on the farm and section lines, instead of having them governed by the natural lie of the ground. I am glad to notice that some

of the journals in Kansas (the Lawrence *Republican* amongst others) take a right view of this matter.

The corn along the road from Westport to Lawrence bore sad evidence of the severity of the drought. Should there not very soon come a good rain, the consequences will be deplorable. It requires a good harvest, this year, to lift the territory in a great measure out of her financial difficulties; but as it is, I do not look for much amendment till we have another crop. Great numbers of persons are leaving the country; most of them, however, will probably return in the Spring, for they are merely going "to put in the winter" in some State where money can be had for labor.

Lawrence is no exception to the general stagnation of trade in the territorial towns; some few buildings, however, are going on in spite of the hard times, and among them a very excellent jail—a structure much needed, by the way, as formerly it was found almost impossible to retain the "public boarders" in the dwelling provided by the generous people for their accommodation. The building in question is a complete shell of iron, put together with much care, perfectly smooth on the inside, so as to defy all efforts of those confined to liberate themselves, as well as sufficiently strong to frustrate the attempts of outside friends towards the same end. There will be a brick facing, with intervening space, outside the iron shell; of course the whole affair will be completely fire-proof. The latter fact shows a wise act on the part of the projectors; every public building should be fire-proof, and the more private ones of the same character, the better. This jail will be quite an expensive structure at first, as may well be imagined, but I doubt not will prove to be economical in the end.

There is considerable talk about making a railroad from Leavenworth City to this place and thence westward up the Kansas valley. No lines can be started at present, in the territory, that have not got land in some way or other to aid in their construction; there is no money here to do anything of the sort. Pity we can't have some of the extra capital that is afflicting your city for some months past with a pecuniary plethora. Whatever mercantile diseases we may suffer from, most assuredly there is little danger on the score of too great abundance of the circulating medium. The above line, they say is in a rather better condition than the other legion of projected railroads, inasmuch as the company have managed to get hold of over 200,000 acres of good land, that was part of the Delaware Reservation. This is not a free land grant; they will have to buy it, though no doubt at a price that will enable them ultimately to sell it at such a profit as will allow them to go on with their road. In time there must be a line from Lawrence eastward to connect with the Missouri section of the Pacific Railroad. As I said before, the natural locality for the most important line in Kansas to traverse, is up the valley of the Kaw river from its mouth, keeping near it the whole way, through the settlements, and finally striking, by the most favorable route for the gold diggings of the Rocky Mountains. But the country is cursed with a superabundance of railroad projects, as she is with worthless little speculators' towns; and rival interests mar natural advantages to such an extent that everything is at a dead lock, and no progress made. For instance, there are no less than three opposition schemes for a railroad up the Kaw or Kansas valley! If five-sixths of the railroad companies were disbanded, and about the same proportion of the "cities" plowed and made into corn fields, the country would be infinitely the gainer.

By way of fostering internal improvements, possibly, they have been "firing up" again in Leavenworth City. No one can fairly say she does not do her full part in the conflagration line; why she rivals San Francisco in a small way! I remarked some very creditable efforts in that direction since my last visit; they did not have an "underwriter's illumination," however, on the night of my arrival, this time, so I am unable to report what improvements have been effected in the fire department, but, judging by their practice, it seems probable that they have kept pace with the times.

The road from Leavenworth to Lawrence was thickly dotted with the wagons and teams of returning settlers, driven out by the hard times. Poor fellows, some of them did look as if they had not been reposing on a bed

of roses (or any other) latterly. They say, here, that those who are thus running away are not of the "true grit"—that they were new comers and not fit for Kansas life; but when a person has no food, no money to buy any, and cannot get work, what is he to do? He must steal, starve, or "up stakes" and leave for other diggings.

Accounts from Pike's Peak are not of the most favorable nature. A man from that locality has told me that there are hundreds who would be glad to work for their board during the winter, if they could get it, but they cannot do so.

E. M. RICHARDS.

RECENT AMERICAN INVENTIONS.

The following inventions are among the most useful improvements patented this week. For the claims to these inventions, the reader is referred to the official list on another page:—

HANGING MILLSTONES.

The object of this invention is to allow the "runner" or revolving stone of a pair of millstones to have a certain degree of independent lateral movement, so that they may adjust and balance themselves perfectly on the spindle by virtue of their own rotation. To this end, a flat bearing plate is employed, said plate being placed in a suitable recess in the under side of the balance iron, of sufficient dimensions to admit of the lateral adjusting movement of the runner; the bearing plate resting on the top of the spindle. Z. McDaniel, of Bowling Green, Ky., is the patentee.

COTTON CLEANER.

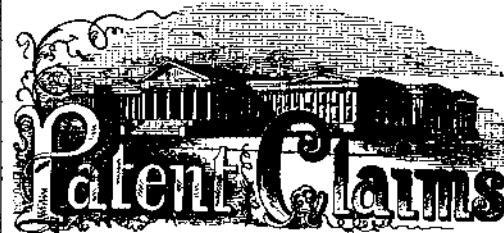
S. C. Ames, of Washington, Ark., is the inventor of an improved machine, which has for its object the removal of dirt and trash from the cotton, preparatory to or after the ginning of the same, so that the staple may be baled or prepared for market in a clean state, and its value very materially enhanced thereby. The invention consists in the use of a stationary screen of polygonal, cylindrical or other form; said screen being divided into compartments by vertical partitions, and each compartment provided with rotary beaters; the screen is placed within a suitable case, and all the parts are so arranged that the cotton will, by the rotation of the beaters, be forced around and through the several compartments of the screen, and thoroughly cleaned.

SEWING MACHINE.

This invention (patented by Dwight Tracy, of Worcester, Mass.) consists in an improved means of controlling the needle thread of a sewing machine, whereby the quantity supplied to the needle is caused to be always in proportion to the thickness of the cloth or other material being sewed and to the length of the feed movement, and a uniform tightness of stitch is produced, whatever variation may occur in the thickness of the material, or however the feed movement may be varied, or whatever may be the relative sizes of the needle and thread, obviating entirely the necessity of any manual adjustment for the needle thread. It also consists in an improved means of controlling the shuttle thread in such a way that it is caused to be drawn to a uniform tightness in the cloth or other material, whatever may be the quantity of thread on the bobbin, or from whatever part of the bobbin the thread may be drawn. It further consists in a certain means, operating, in combination with a needle and a double-pointed and double-acting shuttle, for the purpose of forming a a knotted stitch of peculiar character.

CURING WOOD.

Many unsuccessful attempts have been made to obtain a perfect substitute for whalebone for the manufacture of the ribs of umbrellas and parasols. Jonathan Ball, of Elmira, N. Y., has found that, by selecting the butt end of white oak timber, of what is termed the "second growth," and of straight rift and free from knots or curls, and, in no case, using more than six feet from the ground or stump, and subjecting it to a certain process of curing (which is explained by his claim in our last week's issue), it is made to serve not merely as a substitute for whalebone, but is converted into an altogether superior article, as it is not only tougher and possesses greater tenacity than whalebone, but the ribs made from it always resume their straight condition after exposure to the weather.



ISSUED FROM THE UNITED STATES PATENT OFFICE FOR THE WEEK ENDING SEPTEMBER 11, 1860.

[Reported Officially for the SCIENTIFIC AMERICAN.]

* 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.

29,943.—O. P. Allen, of Rindge, N. H., for an Improved Clothes-dryer:

I claim a clothes-dryer having in combination the metallic brackets, B D, with sleeves, c, and flanges, d, rivets or wires, a, b, ropes, g, arms, A, braces, C, and post, E, and operating as and for the purpose set forth.

[This invention consists in arranging the metallic guide brackets, which support the arms and the braces with sleeves or rings and flanges in such a manner that the ends of the arms and braces rest against the rings and flanges, and that said arms and braces do not depend entirely upon the rivet or hinge for support.]

29,944.—Sampson American, of Chicago, Ill., for a Composition for Toilet:

I claim a compound formed by the admixture of the oil of turpentine, alkanet root, stum, the oil of roses and the oil of neroli, substantially in the manner and for the purposes specified.

29,945.—S. C. Ames, of Washington, Ark., for an Improvement in Cotton Cleaners:

I claim the employment or use of a screen, C, divided into two or more compartments communicating with each other, and provided with beaters, f, and one or more of them provided with oblique deflecting blocks, i, the latter being arranged relatively with the opening or openings, h, to give the cotton a lateral movement from one compartment to the other, substantially as and for the purpose set forth.

I further claim, in connection with the screen, C, the case or box, A, provided with the ledge or projection, l, at its upper part, the case being so arranged over the screen as to allow spaces, j, j, at each side of it, for the purpose set forth.

29,946.—David Barger, of Columbia, N. Y., for an Improvement in Threshing Machines:

I claim the combination and arrangement of the adjustable blast board, m', hook, l', staples, n' n', n'', upper shoe, s', lower shoe, u', furnished with sieves, numbered 1, 2, 3 and 4, operated by the two connecting bars, m and h, working on opposite sides of the winnow and from the same shaft, as specified.

29,947.—Everett Bass, of Calhoun County, Ga., for an Improvement in Tightening Tires on Wheels:

I claim the arrangement of the chaps, H, slips, X, key, F, plate bolt head, B, and inner plate, S, when used for the purposes described.

29,948.—L. A. Beardsley, of South Edmeston, N. Y., for an Improvement in Hay Elevating Forks.

I claim the gang forks, A, A, jointed together, as set forth, with the chains, c, and B B, attached to them, in combination with the tripping latch, e, tripping plate, g, and loop, C, arranged and operating substantially in the manner and for the purposes set forth.

[This invention consists in constructing a device for elevating hay by a rope or chain and pulleys, in such a manner that the bundle of hay to be elevated will be grasped tightly by four curved teeth and held compactly by said teeth while it is being elevated; and when the hay is to be discharged a latch and chain is so applied to the teeth that by jerking a string attached to the latch, the teeth will open, and allow the bundle of hay to fall.]

29,949.—Leonard Bricker, of Springfield, Ill., for an Improved Combination of Smoothing Iron and Lamp:

I claim the arrangement and combination of the lamp with elevated tube, B, and guard, C C, dovetail, A A, and smoothing iron, all in the manner and for the purpose described.

29,950.—H. R. Burger, of Richmond, Va., for an Improved Machine for Grinding Saws:

I claim, first, So arranging the saw-supporting disk, shaft, I, the feed carriage and the gearing, that said shaft is moved laterally independently of the carriage and simultaneously therewith, the shaft and carriage moved together longitudinally, substantially as and for the purposes set forth.

Second, The combination of the gage-stop, R, and its adjusting screws, with the sliding shaft, I, and the mechanism by which it is controlled and actuated, substantially as and for the purposes set forth.

27,951.—E. W. Cady, of Tomah, Wis., for an Improvement in Self-adjusting Braces for Jack Screws or other Hoisting Apparatus:

I claim the combination of a self-adjusting brace, composed of the arms, D D F F, and the evener, E, and constructed substantially as set forth.

29,952.—M. C. Chamberlin, of Johnsonsburg, N. Y., for an Improvement in Self-detachable Whiffletrees for Vehicles:

I claim the combination of the bell cranks, a, with the rods, d, d, and the sleeve, c, when the same are used substantially as and for the purpose specified.

29,953.—D. W. Clark, of Stratford, Conn., for an Improvement in Stirrups:

I claim the employment within the stirrup, A, of a laterally adjustable bar, B, substantially in the manner and for the purpose shown and described.

29,954.—George Colyear, of Appoquinimink Hundred, Del., and A. H. Patterson, of Philadelphia, Pa., for an Improvement in Couplings for City Railroads:

We claim, first, The shoulder, a, constructed and arranged in the manner and for the purpose substantially as set forth.

Second, The attachment, D, for joining the box to the car, constructed and arranged substantially as set forth.

29,955.—S. L. Donnell, of South Carroll, Tenn., for an Improved Grading Instrument:

I claim the arrangement of the suspended bubble block, N, with the sliding weights, d, p, umb, l, turning table, H, and supporting rod, R, substantially in the manner and for the purpose described.