

Scientific American

NEW-YORK, APRIL 16, 1853.

Great Increase of our Steam Marine.

The United States of America presents the most extraordinary spectacle of rapid progress in greatness and power, of any nation that has ever existed. There is an inherent vitality and energy in our people, which enables them to transform the waste places of our land into fruitful fields, and lonely deserts into teeming cities, and that with a facility and power akin to the skill ascribed to the old alchemists, in whose magic hands iron became gold, and brass shining silver.—With a most wonderful increase of cities, villages, and everything connected with industrial progress on land, no less wonderful has been our progress on sea—in building ships and subduing the winds and waves by the mighty power of steam. Six years ago there were only two mercantile steamships in the whole United States; these belonged to New York, and were but insignificant in size.—Then we had no mail steamships, and the star spangled banner had never floated but in a solitary instance in a foreign port above the quarter deck of an American steamer. The smoke from American funnels never was seen afar on the ocean, and in this respect England alone reigned mistress of the seas. But what a change has taken place in that short period. The four largest and as yet the fleetest ocean steamships in the world belong to our country, and the rivers Mersey in England, the Seine and Weser in France and Germany, are now visited regularly by eight American steamships of large tonnage and powerful engines. The two mail steamships Washington and Hermann, which ply between New York and Bremen are 1,700 tons burden each; the two which ply between New York and Havre—the Franklin and Humboldt, are 2,200 tons each; and the four of Collins' line of steamships are each 3,000 tons burden, making an Atlantic fleet of steamships amounting to 10,000 tons, burden. Six years ago not one of these vessels had disturbed the waters of the great deep.

Besides these noble vessels there are seventeen steamships of an aggregate tonnage of 21,912 tons plying regularly between New York and our Southern cities and the West Indies, and there are no less than 41 of an aggregate tonnage of 67,336 tons engaged in the New York, California, and Oregon trade. All these are American built steamships, and comprise a mercantile marine larger than that of all the other nations in the world—Great Britain excepted—put together. All this steam marine has been created in less than six years. Do these figures not exhibit a touch of power more wonderful than that of any genii of Oriental tale, that of Aladdin's wonderful lamp not excepted. Side by side with us, the people of Great Britain have been running a race in increasing their steam marine also. Within the same period they have built a greater number of steamships than we have, and the same circumstances which have operated so powerfully to open up new fields of trade with us, now operate upon them—we allude to the gold discoveries of California and Australia. It is difficult for the mind to entertain at once a just idea of the magnitude of these stupendous changes in our steam marine, a contemplation of them makes "the boldest hold his breath for a time." It is very natural to ask, "can our country go on much longer at such a rapid pace; will a period not arrive at no distant date, when like other nations of the old world, ours will also cease to make such strides in industrial progress—when it will, to use a common term, stand still? We have no affirmative answer to return. Our nation, if we keep united, and hot-headed men do not foolishly precipitate us into war with powerful foes, must go on with just as rapid strides for the next thousand years as it has for the last fifty. We have more natural resources of all those things which go to make a nation great and powerful than all the known kingdoms on this globe. We, like the House of David, must increase, while other nations, now great and powerful, will decrease.

A Mountebank Professor Lecturing on the Ericsson.

Our readers will bear with us for so frequently referring to the Ericsson. So many men from different motives have assailed us, because from the first we have given good reasons why hot air can never supersede steam,—that it is altogether inferior to it as a motive agent—we have to notice some of these attacks, lest our silence might be construed into an argument in favor of those who propagate falsehoods. We have stood decidedly alone upon this subject, and have done our duty conscientiously with a regard to truth only. Without any reason for so doing, many of our editorial brethren of the press, in various parts, have used language towards us which at present we will treat with silent contempt; we have laid up their words, and "will bide our time."

We learn by the "Louisville, (Ky.) Journal" of the 24th ult, that a certain Prof. Rainey delivered, on the evening of the 18th ult., a lecture in that place, on the Ericsson. The "Journal" says, "the lecture was delivered to one of the most intellectual houses to be obtained in Louisville." So far as it regards the capacity of judging of the comparative merit of steam and air engines, we suppose that many of those who heard the professor, might be considered *intellectually* far beneath a less imposing audience. We are sorry at least that any person in Louisville should have been imposed upon with any of the falsehoods represented to have been uttered by the lecturer, as represented in the "Journal." In the course of his lecture, this professor said (we quote from the "Journal") "while Mr. Ericsson's thoughts were turned on this subject (hot air as a motive power) many persons in Europe and even America, were experimenting on air engines, or such only as heated a new supply of air at every stroke. Mr. E. in the meantime discovered the regenerator, and proposed it to the Savans in London where he was residing. Prof. Faraday, among others, eagerly grasped at the theory, and was so pleased with it that he lectured on the new discovery in the Royal Institution, in London, &c. &c. We also supported it. About this time a Mr. Stirling, of Scotland, heard of the idea of a regenerator, which he saw at once was indispensable to an air engine, and attempted its construction, although he had no idea how Mr. Ericsson's regenerator was formed, as he had not permitted his development to go to the public. Mr. Stirling constructed a regenerator which was a tube from one half to two and a half miles long, and supposed that the air in passing through it would be heated, or that the hot air, in escaping, would deposit all its heat. It took the air too long to pass through, and produced too few strokes. When the air was heated in a tube, its expansion was lost to a great extent on its sides. This is the calorific engine that the Scientific American has so industriously paraded before the mechanical and scientific world, and which, as that journal knew nothing of the structure of Mr. Ericsson's engine, must be the only engine, and consequently it has deceived the people, by what the slightest observer will see is palpably misrepresented." All that we have quoted above from the "Louisville Journal," respecting Stirling's air engine, and what is asserted respecting our conduct, we pronounce to be falsehoods, uttered for the purpose of deceiving his audience regarding the real merits of the case.—We never published an illustration of Stirling's air engine in the Scientific American, but we did that of Capt. Ericsson—the one he first patented in 1833—in No. 20, on the 29th of last January. We copied it from Sir Richard Phillip's "Arts of Life," as we stated, and any one who has read that work knows this to be true. The said air engine of Capt. Ericsson, had a tubular regenerator, but whether the tube was half a mile or two miles and a half long we cannot tell, we can only say it was not so long as the falsehood uttered in the face of that intellectual audience in Louisville by this itinerant lecturer. The falsehood consists in this, that he said we put forth the air engine of Stirling having a tubular regenerator for Capt. Ericsson's, and thus deceived the people, whereas we never published Stirling's engine, the one we published with the tubular regenerator

was Ericsson's. If any of that audience in Louisville had read the work referred to, he could easily see that the professor was uttering what was not true. Let any one examine the said work, and dare to say that we deceived the public by *misrepresentation*, as this professor charges us. Our columns are open to Capt. Ericsson or any of those interested in his engine to contradict us in these statements if they can. We have resorted to no subterfuges nor misrepresentations in speaking of the Ericsson; we have had no personal interests to subserve, and no personal feelings to gratify in uttering our opinions respecting it. We have spoken of those connected with the enterprise as honorable men, and would be glad if it could prove successful. Our language has always been respectful, and no wilful untruths have we ever uttered about it.

Who this Prof. Rainey is we do not know. The "Louisville Journal" speaks of him as somebody of consequence. Only let a man have *Professor* before his name, and go among strangers, and then be he hungry or henpecked at home, he at once becomes a hero, and that too among no class of people so readily as among those who are so often called in snobbish language "*intellectual people*," not engineers and machinists mind you.

The "Journal" states, that "the professor intends going to London early in May, and will lecture in but three or four other cities." He had better go to school for a while longer; the most of his lecture reported in the "Journal" is derived from an old lecture delivered in Boston about Capt. Ericsson in 1843, by John O. Sargent. We can show any person the printed lecture. We hope the professor while on his way to London will visit New York and make the same statements here that he made in Louisville, as reported in the "Journal."

As the "Louisville Journal" receives the Scientific American regularly, the editor can turn back to No. 20, and see whether we are honest in the matter or not, by comparing the statements we have made with the work we have referred to, which is surely in some library in Louisville. By our last number he would also see that the Ericsson was already getting new crowns to its furnaces, although, as reported in the "Journal," the professor stated they could not burn out sooner than boilers. All we have said will come out straight before twelve months pass away.

In connection with this subject we would state that we have read with great satisfaction an editorial article in the "Albany (N. Y.) Evening Transcript" of the 31st ult., on hot air as a motive agent. The article was a reply to a correspondent, and exhibits a great amount of knowledge on the subject. One remark shows the editor to have looked into it far beneath the surface; it is this: "there are mechanical difficulties in the direct application of heat as a motive agent that cannot be overcome." This shows to us that he sees deeply into the difficulties of hot air.—Neither *dry* steam (stame) nor hot air can be profitably employed as motive agents, for steam is not only a motive agent but a lubricator also, and thus has qualities which hot air does not possess. Hot air engenders great friction, and renders valves and pistons so difficult of working tight, that it never can be employed with profit in comparison with steam as a motive agent.

Events of the Week.

DEATH OF ORFILA.—By the late news from Europe, we learn that Orfila, the celebrated chemist, is dead. He died in Paris at a good old age. He was a Spaniard by birth, and was a native of the Island of Minorca, and born in 1787. For a long time he was at the head of all the chemists in the world in Toxicology. He was naturalized in France in 1818, and in 1824 his learning and taste were so appreciated in Paris, that he was appointed to the chair of Chemistry in the Medical school, which he filled until he died on the 4th of last month (March.) He was a fine lecturer and very eloquent. He published a treatise on poisons as early as 1812. The amount of poisoning in Spain perhaps led his mind early in that direction. His first work he successively enlarged and heightened by numerous other works relating to Toxicology

Medical Chemistry, and Legal Medicine.—His Elements of Legal Medicine, which has passed through six editions, his published Lectures on Medical Jurisprudence, and the Juridical Exhumations, and some others of his writings form a body of medical jurisprudence, quoted as supreme authority in the criminal tribunals here. All the physical causes, indications, and effects of death by violence, are described and explained, and their analogies with those of natural death marked out.

He was consulted in every case of poisoning which took place in Paris for many years, his opinions were implicitly relied upon in every case, and the celebrated poisoning case of M. Lafarge, by his wife and her paramour, the accounts of which were published along with Orfila's investigations in many of our papers a few years ago, has rendered his name familiar to all our people, as well as our doctors and chemists. His was one of those complete minds whose faculties may be applied with equal success to a diversity of objects.

His administrative talents were excellent; he was a fine singer and understood engineering. One day at a general meeting of the French Northern Railway, a discussion arose among the principal men charged with the financial management of their great enterprise. The question in debate was surrounded with difficulties. Orfila presents his view, and proposes his solution of it. The Banker Rothschild, a chief manager of the Company, immediately begged the Professor to become one of its Directors. It was while returning home in the rain from one of their meetings that he felt the first symptoms of the malady that so soon put an end to his career of active usefulness. It is also said that his health had been injured by exhalations from the poisons with which he experimented.—Strong and true to the end, the final effort of his dying will was expressed in an order for the post-mortem examination of his body—his last contribution to the progress of science. He has left 120,000 francs to found prizes for the solution of questions most important to the advancement of Toxicology and of medicine generally.

DREADFUL STEAMBOAT EXPLOSION.—On the 23rd of last month while two steamboats, the Neptune and Farmer were racing from Houston to Galveston, in Texas, the boilers of the Farmer exploded with terrific violence, shattering the boat to pieces, killing the captain and a number of others, and severely wounded many of the passengers. Mr. Stackpole—a passenger—was expostulating with the Captain on the danger of racing when the accident took place, and the passengers had prepared a written protest against such reckless exposure of their lives. Many people have asserted and do assert that passengers are the cause of steamboat racing by a desire to beat an opposing boat. This is not true; passengers are in general opposed to racing, and here we have an evidence of this being so. When the Henry Clay was burned last summer, the passengers were opposed to the race, evidently carried on between that boat and another. The captain of the Farmer paid the penalty of his recklessness; what has been done to bring those in charge of the Henry Clay to justice. Had the owners and captain been poor, miserable, outcast men, they would perhaps have been hanged before this; but wealth and influence are just as powerful in arresting the arm of justice in our Republic as in any despotic country on the face of the earth; yea, in many cases more so. This is a stigma upon our moral character as a people, which we should wash out at once.

NEW HOT AIR ENTERPRIZE.—We understand that an experimental boat is now building in this city, under the superintendance of Mr. Renwick, ex-Examiner of the Patent Office, for a wealthy company, which is to be driven by hot air engines like those of Messrs. Stirling, with some improvements. Her propelling device is to be a central wheel, which is to be changed for some other device if found not to answer. They might as well save their money, it will never be of the least practical benefit. We want something better than steam, not interior, as hot air is. When it proves superior we will make a note of the matter, and faithfully report progress.



Reported Officially for the Scientific American

### LIST OF PATENT CLAIMS

Issued from the United States Patent Office  
FOR THE WEEK ENDING APRIL 5, 1853

**FORMING YARN BY FELTING**—By J. H. Bloodgood, of Rahway, N. J.: I claim the formation of thread or yarn from woolen rovings, by the process of felting, instead of twisting or spinning, substantially as set forth.

**GRAIN HARVESTERS**—By T. D. Burrall, of Geneva, N. Y.: I claim, first, the additional apron, to convert the usual rear discharge into a side discharge of the cut grain, constructed and arranged as set forth.

Second, the combination of the curved supports and the adjustable journal box piece, to preserve the relative positions of the cogs in the mitre gearing, and at the same time allow of raising and depressing the driving wheel, the gearing, &c., being constructed and arranged as described.

**PLOWS**—By Solomon Horney, Jr., of Richmond, Ind.: I claim constructing the shank hollow in a single piece, with two closed ends, as described, and securing the same to and with the share and beam, by means of the master bolts, and the short bolt for passing through the slot in the top end of the hollow shank, for varying the position of the shank with the beam, and for giving additional security to the fastening of the same, as set forth.

**WATER METERS**—By Wm. H. Lindsay, of New York City: I do not claim operating the valves of the main engine or cylinders, by means of a secondary or independent engine, the valves of which are actuated through the medium of the primary engine, the same being well known in the construction and operation of hydraulic engines, &c.

But what I claim is, first, operating, as described, the valves of a secondary engine, by the main engine, through a portion of their movement, and completing the same through the medium of the secondary engine.

Second, connecting the cross-head of the main cylinder with its valves, in the manner described, so that said valves will close the ports of the main cylinder, in case the working parts of the secondary engine should fail to do their duty.

Third, I do not claim the balancing of slide valves, as such has heretofore been done in various ways; but I claim forming a recess or recesses, in the under or working side of the slide valve, in combination with the secondary opening or openings, through the seat, or in the side of the port or ports, for the purpose and in the manner, substantially as described.

Fourth, I do not claim making a connection between opposite sides of the plunger piston at a certain portion of its travel, as that has heretofore been done; but I claim the combination of the bridge in the cylinder, in combination with the openings in the plunger, for the purpose as described.

**FREDDING BLANKS TO SCREW MACHINES**—By Thompson Newbury, of Taunton, Mass.: I claim the slide, substantially as described, passing up through the bottom of the hopper, in the manner set forth.

**SASH FASTENERS**—By Henry R. Nott, of Lewisburgh, Pa.: I claim, first, arranging the spring catch fastenings for the upper and lower sash, about the middle of the frame, in such manner that the upper sash can be managed or fastened and unfastened without interference from the lower sash, as set forth.

Second, the particular arrangement of the attachments on the one plate of the two spring fastenings, said arrangement consisting in the swing bar (through which the spring bolt of the upper sash is operated) with its hinge joint in the rear of the spring bolt and the bar, and the bolt of the lower sash, by which I gain economy of room and a cheap and efficient action upon the two sashes, in the manner set forth.

**PREPARING VEGETABLE FIBRE**—By Charles J. Pownall, of Addison Road, England. Patented in England for Ireland Aug. 11, 1852: I claim the mode of subjecting fibrous vegetable substances to repeated mechanical pressure, and the action of a stream of water for the purpose of depriving them of resinous or gummy matters, and also resolving them into their ultimate or finer fibre, as described.

**SECTOR PRESSES**—By Samuel Rust, of New York City: I claim, first, one or more bearing pieces at the sides or in front of the eccentric sector, acting upon any fixed point or rest on the press frame, for the purpose of raising or withdrawing the punch or pressing appendage, by power applied to the sector, in the reverse direction to that by which the pressure is given, as specified.

Second, allowing to the eccentric sector a sufficient amount of motion directly in the line of the pressure, to enable it to follow and always keep in contact, and in proper relation to the eccentric sector, as set forth.

**THREADS OF WOOD SCREWS**—By Elliott Sawyer, of Berlin, Ct.: I do not claim the combination of mechanism for holding and rotating a screw blank, and mechanism for carrying a cutter or chisel, against the blank, and regulating the movements of that cutter by a screw; but I claim the endless elongated chaser as constructed and made to turn and move on a pin, or its equivalent, and to act against a screw blank while in rotation and movement, as specified.

And in combination with the elongated endless chaser, and the screw blank holder, I claim the feeding cam or apparatus as applied, so as to be operated by the chaser, and feed it forwards against the screw blank, as specified.

And in combination with the elongated endless chaser and its sustaining carriage, I claim the movable rail and groove, together with mechanism for elevating and depressing the rail, as stated, the mechanism, as described for such purpose, being the two grooves and their inclined planes, and the studs and the springs of the rails.

And in combination with the elongated endless chaser and its operating screw and elongated endless worm gear, and the feeding apparatus of the chaser, I claim mechanism for withdrawing the driver from the head of the screw, or releasing the screw from the machinery, by which it is put in rotation, mechanism for removing the cut screw from the endless chaser, and presenting another screw blank to the operation of it, as described, and me-

chanism for restoring the driver and other parts to their correct positions, to again set in motion the screw cutting machinery; the machinery as described for actuating the driver being the cam, pitman, rocker shaft, bent arm and forked lever, that for removing the cut screw from the chaser, and presenting to it a fresh screw blank, being the rotary blank holder, gear wheel, and arms; that for restoring the driver and other parts to their correct positions, to again set in motion the screw cutting machinery, being the pitman and the spring, the whole being applied and made to operate together, as specified.

**WEAVING CORDED FABRICS**—By Wm. Smith, of New York City: I do not claim two shuttles, as two or more have been used in various kinds of weaving; but I claim the process of forming a fabric by the combination of stationary movable warps, with two weft threads passed simultaneously through the two sheds formed above, and below said stationary warps by the movable warps.

**MIXING AIR AND STEAM FOR ACTUATING ENGINES**—By Wm. M. Storm, of New York City: I claim generating the steam for intermixture with the air, or other gaseous body, in direct contact with the latter; the same (the air or gas) not being the hot product of combustion, nor to arrive at the place of admixture from direct contact with any body of fuel undergoing combustion, for the reasons stated.

I also claim the plan of generating the steam for such purpose in some comparatively dry vessel or heater, for the reason given, the water from which such steam is so generated being mainly held while vaporizing, in suspension in the air, for the objects specified, the air and water, to that end being caused by some adequate means, to meet with an extensive surface of mutual contact, as explained.

**BRAKES FOR RAILROAD CARS**—By Gregor Frinks of Jersey City, N. J.: I claim so combining the shoe frame with the ordinary truck or car, as that it may be raised and lowered, by the operation of the brake lever, so as to be carried by the truck or to receive the weight of the car, to aid in applying the brakes, and so that the wheels shall not come in contact with the shoes, but be free to turn, as described.

Also giving the truck or car a motion independent of the shoe or brake frame, by means of the curved inclined planes or their equivalents, on the shoe frame, up which the axles of the trucks may roll by an easy swinging motion whilst its entire weight continues to aid in applying the shoe or brake, to the surface of the rails, as described.

**STOVES**—By J. J. Updegraff, of Selin's Grove, Pa.: I claim, first, the combination of the central hot air passage, the annular fire chamber, and tubular fire pot for the full economy of heat, as set forth.

Second, the combination of the outer casing, tubular fire pot, and central hot-air passage, as described, so that the currents from each may all unite and co-operate, as set forth.

#### Withdrawals from the Patent Office.

In the last number of the "Scientific American" you commented justly on the attempt made by the Patent Office, to retain the whole fee of a rejected applicant, who withdraws his claims and relinquishes his model. No other views than those you have taken can, in sober earnest, be entertained of the plain meaning of the law as you have quoted it. How it ever entered into the mind of the late able Commissioner of Patents, to change the established policy of the Patent Office, and to retain the \$20, which has been returned by every previous Commissioner of Patents, according to the plain and simple meaning of the law, is more than I can comprehend. He surely consulted some person, who advised the change, and suggested the new policy. As you have pointed out the conflict of the new order with the law, let me endeavor to show, by a few brief arguments, that the new decision is illogical, so far as it regards the correct mode of reasoning, to find out the meaning of what is obscure in some laws; in other words, to arrive by reasoning at what was the intent of the law makers who enacted the laws. It certainly never entered the mind of a single Senator, nor member of Congress, who constructed, revised, or voted for the new Patent Law of 1836, to charge, incongruously, only \$10 for the examination of an application for a rejected patent, and no less than \$20 for that of a simple caveat; yet this is what the new order of the Patent Office does. Reasoning in this manner to discover the intent of the enactors of that Act, a mind possessed of but a very small amount of logical acumen would at once conclude that the new policy of the Patent Office was wrong, for the examination of the application for a patent, upon which a caveat had been filed, is no more difficult nor troublesome than one upon which no caveat papers had been filed.

By no rule of logic or reason could we conclude that it ever was the intent—that it ever entered the mind of the makers of the Act of 1836—that \$30 should be charged for examining and rejecting an application for a patent upon which a caveat had been previously filed. The letter of the law, therefore, the rules of logic, and the reflections of the mind, lead us to conclude, that, as the patent law says "in every case," when an application for a patent is rejected, twenty dollars are returnable to

him who withdraws his application and relinquishes his model.

JUNIUS REDIVIVUS.

New York.

#### The Labor Movement.

Our country is at various periods visited with certain epidemics, which run like wild-fire through the veins of the mass of our population, and are propagated from class to class with destructive intensity. These epidemics are of a social character, and are generally known among the working classes as "strikes" or combinations of particular trades to raise their wages. Their effects are generally disastrous to all concerned, both employers and employed, and always more hurtful to the latter than the former. Indeed, instances are not rare, if we look to history, in which flourishing communities, and large commercial and trading cities have been irremediably ruined by the insensate conduct of combinations of this kind. An epidemic of this description is now raging in our midst, and "strikes" of all the trades in New York City are now going on. From them we augur no essential benefit, as their proceedings are of too irregular a nature to meet with general success. The ostensible cause put forth is the rise in rent and provisions, which require, it is maintained, a corresponding advance in workmen's wages, and to obtain this end some trades have already struck and others are threatening to do the same. In nearly all cases an indiscriminate rise of 10 or 15 or 20 per cent. has been required, irrespective of the worth of each workman or of the profits of the employer; such demands have been, in many instances, resisted, and taking every thing into consideration, it appears to us with much justice. This manner of redressing supposed grievances has doubtless been adopted by the leaders of the movement as the most taking with the mass, who, they naturally suppose, will be tickled by such a scheme, where all are confounded together, the good, bad, and indifferent. Indeed, the fact of such being the case gives the present movement rather the appearance of that of a disorderly multitude than of organized societies. Trade movements, when carried on in a proper peaceful manner, may be profitable to all concerned, and where there are evils that require to be redressed, no one can complain if the members of a trade unite for that purpose. We have no doubt that such is the case with many trades, and that they labor under grievances in many instances that require remedying. But to succeed in doing so employers must be met in a friendly spirit, and mutual forbearance be manifested on both sides. An indiscriminate rise of 15 or 20 per cent. is not likely to be acceded to by employers which would place workmen of different calibre on the same footing, elevating the industrious and the idle, the skilled and the ignorant artisan by the same standard. Such a demand, we are quite sure, will never be acceded to by employers generally, for it takes away their right of free choice, and of giving to every one according to his supposed merit. A demand of this kind is equally tyrannical on the workman, for it puts all upon the same footing, and compels the industrious, by striking, to injure himself for the idle—such a system can only end in confusion and defeat. An advance, if such is to be the case, in workmen's wages, ought to be commensurate with their abilities, and of this the employer is the best judge; any plan of so much per cent. is mere fustian, for it is founded upon injustice, and will not, we surmise, be acceded to.

We would, therefore, counsel our mechanics and others to listen to their better reason, and not to be led away by artful demagogues, who will only use them for their own selfish purposes. Let our workmen organize into "Trade Societies," if they like, and if they labor under any grievances, let them try to remedy them in a sensible manner; but as to mass meetings and holiday processions, they will only end in nothing. "A fair day's wages for a fair day's work," is no doubt a good motto, but the two must be proportioned, and no man has a right to a fair day's wages for a bad day's work, and vice versa. On the other hand we would advise employers to consider the demands of their workmen in a friendly manner, and to show them the inconsistency of what they ask. If they do this, and make it a rule, as is their interest, to mark out the deserving and raise wages according as workmen show skill and industry, there will be no danger of strikes. But then an employer should not be above his business, he must not trust the management of his shop entirely to any foreman, or expect that another will be as watchful in finding out the deserving as he would himself. Strict justice and even-handed impartiality in giving to every man according to his worth, will be more effectual in preventing strikes than any rise of so much per cent. No workman is entirely a creature of dollars and cents, and although he works for his daily bread, he most often has a higher feeling of honor than a prince or an emperor, and any outrage upon justice by the employer, in favoring some more than others, is more conducive to strikes than the rate of wages. An ill-governed shop will always be the hot-bed of strikes, whatever be the rate of wages, whether much or little, and the best plan that the employers can adopt to counteract the efforts of would-be demagogues, is to head the movement themselves. Let them meet their workmen in a fair spirit, treat them all with equal justice, frown down all cabals and intrigues, and they will find that their right influence will be able to render nugatory every attempt to excite disaffection or a disproportionate rise of wages. A contrary course will only serve to engender a hostile feeling, and to draw a line of demarcation that ought never to be seen in a free country between the employer and the employed.

#### The New Silver Coinage.

The officers of the Mint at Philadelphia are now closely engaged in coining the new silver pieces of the denomination of three, five, ten, and twenty-five cents. In order to meet the want of small silver change, the work at the Mint now goes on both at night and by day. The new quarter of a dollar weighs precisely four pennyweights, and is 7½ grains less than the former piece. As compared with the current Spanish quarters, the new coin is decidedly heavier and somewhat finer. None of the new dimes or half-dimes have yet been struck. The moulds for the gold bars are intended to make bars of the value of \$200, \$1,000, and \$4,000 each.

#### A Railroad Well Watched.

The Hudson River Railroad, 150 miles in length, employs 225 "flag men," stationed at intervals along the whole length of the line. Just before a train is to pass, each one walks over his "beat," and looks to see that every track and tie, every tunnel, switch, rail, clamp and rivet is in good order and free from obstruction. If so, he takes his stand with a white flag and waves it to the approaching train, as a signal to "come on"—and come on it does, at full speed. If there is anything wrong he waves a red flag, or at night a red lamp, and the engineer on seeing it promptly shuts off the steam, and sound the whistle to "put down the brakes." Every inch of the road is carefully examined after the passage of each train.

#### Important Patent Case—Hay and Cotton Press.

On last Saturday, the 9th, a very important patent case was decided before Judge Nelson, in this city. The plaintiffs were Tyler & Pendleton, vs. F. Hyde and others, for an infringement of the patent for Tyler's Cotton Press. A verdict of \$11,125 was given for the plaintiffs.

Plaintiff T. obtained a patent for a machine for pressing cotton, the principle of which was two levers acting by means of the segments of a circle immediately on the top of the cylinder and the platen. It was contended that defendants infringed the patent by making some machines on the same principle, and sending them to Mobile, where they are in operation, to the injury of plaintiffs. The machines made by defendants have two sets of levers, the rods, in each case, being half the lengths of plaintiffs.

#### How to Make Corn Bread.

One quart of sour milk; two table spoonsfull of saleratus; four oz. butter; three eggs; three table spoonsfull of flour; and corn meal sufficient to make a stiff batter.