

Scientific American

NEW-YORK, AUGUST 14, 1852.

Accidents--their Cause and Cure.

We have said so much about accidents, that, were it not a duty which we owe to the community, we should not occupy our columns with a single word on the subject at present. Since the lamentable accident of the burning of the "Henry Clay," whereby seventy of our fellow creatures lost their lives within two hundred feet of the shore, in broad daylight, as noticed in the last number of the Scientific American, we have received a great number of communications, presenting different plans for the prevention of such catastrophies. One proposes an improvement in force pumps, to be worked by a capstan near the bow of the boat, for the extinguishment of fires; another proposes to line the boiler room and all around the steam and smoke pipes, with sheet or plate iron, filled in behind with plaster of Paris, or some other non-conductor, to prevent a boat taking fire; and another proposes that every person who travels by steamboat, or sailing vessel, should have some article of wearing apparel made into a buoyant life-preserver, to keep him or her from sinking in the water. It is laudable to present good plans for the prevention of such calamities, but that will afford no remedy, unless they are acted upon. If the Henry Clay had not been racing that day, does any person suppose she would have taken fire? Not one. And after she was on fire, if a stake had been hastily driven into the ground on shore, and a chain run out from it and secured to the stern of the burning boat, almost every one on board could have been passed along it to the beach and saved. But the unfortunate event has transpired, and no less than seventy families in our land, are clothed in sadness and grief. It is easy to account for such accidents; it requires only the exercise of a common judgment, but to prevent future accidents of a like nature, requires a thorough reform in national conduct and feeling. If prompt punishment were awarded to those who, by reckless conduct, conduce to such disasters, fear would act as a restraint upon all those placed in positions where human lives were under their charge for safety. But we well know, that, although hundreds have lost their lives by boiler explosions in our country, both on steamboats and in workshops, and although numbers have lost their lives by railroad accidents, where the most culpable recklessness and carelessness have been proven, yet in what case—a solitary case—has just punishment been meted out to the guilty? We know of no case in which this has been done. If severe and prompt punishment were dealt out to the really guilty, we should soon see an end of such accidents; it is for want of the good administration of justice, that so many accidents do take place. Are our courts corrupt—are magistrates debased, or what is the matter? How is it that men of wealth or political influence can get so many delays, checks, decisions, and counter decisions in our courts, so as to obstruct and nullify the aims of justice? These are serious questions—let our people take them to heart, and endeavor to find a remedy. We may make as many laws as we choose for the prevention of accidents by steamboat and railroad, and as many remedies may be suggested as would build a pile of plans high as the Andes; but unless our courts and magistrates do their duty, good laws will be worse than no laws, and good plans but a delusion and a mockery. The evil lies with our prosecuting magistrates and courts; if they did their duty we should have less cause for mourning.

Artificial Stone Fronts on Houses.

A great number of houses are now built with coarse brick fronts, which afterwards receive two or three coats of boiled oil, and are then covered with a coat of peculiar mastic cement, which is composed, we are told, mostly of dried sand, some boiled oil, some red lead, and a little plaster of Paris. This cement resembles moist sand when put on, but it sticks well, and in a short time becomes as hard as freestone, which it greatly resembles. This plaster is streaked off in blocks, and a

building so covered looks like one built of dark brown polished freestone. We have heard objections made to such buildings, but not one by a person who had taste and experience in architecture. This cement does not scale off; it endures and forms a thorough coating of artificial stone. The only objection worthy of note, urged against them, that we have heard, is this—"after all, they are not so good as brick buildings, which are no shams;" these words we have marked, for they have appeared in print in a daily paper in our city, but the objection, urged against the artificial stone fronts, can be as strongly urged against the painting of any building. Paint is put on to preserve and beautify a building, and so is the artificial stone cement.

A New Fish Business.

During the past winter, the controversy respecting the resuscitation of frozen fish was effectually settled through our columns; a new fact to many was also brought to light, namely, the supplying of ponds with new kinds of fish brought from distant waters in a frozen state. We have also noticed in the Scientific American the mode of cultivating carp in the marshy ponds of France; but perhaps the most extraordinary discovery of the present day, in the fish line, is that by which they can be produced to an incalculable extent in streamlets, rivers, ponds, and lakes, by artificial means. This process within the past three years has been employed on a grand scale, with considerable success, in various parts of France. Two fishermen in the Department of Vosges, having noticed that the fine trout in the streams were fast declining in numbers, made it their business to investigate the cause. They discovered that not one egg in an hundred deposited in the beds of the rivers came to maturity, the rest being washed away or devoured by other fish. It struck them that if they were to collect the eggs and protect them from large fish, they would in a few years obtain a plentiful supply. They accordingly in imitation of fish, placed the eggs on a bed of gravel, put them into a box filled with holes, and sank it into the bed of a river. In due time they had an abundance of small trout, which they kept in clean water, out of danger, and supplied with fitting food. Applying this process for a few years, they have stocked a great number of the streams and rivers of France with millions of fine trout. This is a subject which should arrest the attention of people in our country.

A Railroad in Broadway.

It has been proposed, in our Common Council, on the application by petition, to build a railroad in Broadway, in order to relieve it of the enormous quantity of stages and other movable obstructions. The property holders in Broadway held a meeting last week, and passed a number of strong resolutions against the project. Here is one of them:—

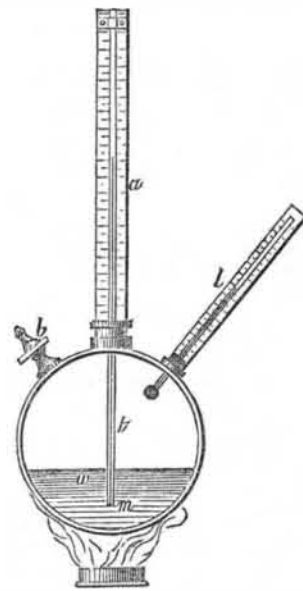
"Resolved, That the Railway will render Broadway, as is the Bowery now, because of its Railroad, a street through which none would pass unless compelled by necessity, preventing entirely the desire for its use for pleasure—depriving the citizens of the use of that fine promenade, now so much sought after, and enjoyed with so much zest."

We believe that the owners of property would be the gainers, as well as the public at large, by a railroad. Still it would be wrong and unjust to erect a railroad through that street, against the wishes of the owners of property in it. It is our opinion that beautiful railroad carriages would be less objectionable than clumsy stages, to those who promenade along that noble street—for beautiful it is not yet, but may be at some future period. The railroad cars would be more regular in their trips, and promenaders would not have to wait and run so much to avoid furious stages, as they now do, when crossing from one side to the other. A railroad would not entail any loss upon the owners of property nor those doing business in Broadway; still, if they think it would, their voice should be potent in the matter. One thing we do know—the obstructions to persons desirous of crossing the street below the City Hall Park, by crowds of carts and stages, demand some remedy. What shall it be? The owners of property should suggest some thing.

Steam.

The effect of heat is to convert many solids and liquids into vapor. Of all the vapors, we are most familiar with steam. Water, when converted into steam by heat, expands from a cubic inch to 1700 cubic inches. But a much larger quantity of heat enters into vapors than into liquids. If over a steady fire, a certain quantity of ice-cold water requires one hour to bring it to the boiling point, it will require a continuance of the same heat for five hours longer to boil it off entirely. Liquids do not become hotter after they begin to boil—a thermometer will not rise any higher if kept in a boiling vessel (after the water commences to boil) for a year. This fact is of importance to cooks in saving fuel; to boil meat in a gentle way, is just as efficacious as to boil it with great fury at the expense of a larger amount of charcoal.

The steam from boiling water is found to be no hotter than the water itself. What then becomes of the heat communicated to the water, since it is not indicated by the water or steam? As much heat disappears as is capable of raising the temperature of the wa-



ter, which is converted into steam, 1000 degrees; this is now assumed to be about the latent heat of steam. A cubic inch of water, raised into steam, will, if confined in a tight vessel, and  $5\frac{1}{2}$  cubic inches of water, at  $32^\circ$ , injected into it, raise the whole of that quantity to  $6\frac{1}{2}$  cubic inches of water at  $212^\circ$ —that is, the steam will be condensed into water, and the cold water elevated  $180^\circ$  in temperature; this experiment proves the theory of latent heat.

Gay Lussac discovered that liquids were more easily converted into vapor when in contact with corrugated, than smooth surfaces; also that it boiled at two degrees higher in glass than metal vessels; this is a fact for boiler makers.

It is the pressure of the atmosphere, 15 lbs. on the square inch, which makes the temperature to be increased to  $212^\circ$  before it boils, for water will boil on the top of mountains at a much lower temperature, and in a vacuum at  $150^\circ$ . A high heat browns sugar, and advantage was taken of the low heat at which sugar boils in a vacuum, by a Mr. Howard, in England, who adopted the system of boiling his syrup in a tight-covered pan, and pumping off the air and steam. The inventor of this improvement made a fortune.

Various liquids boil at different temperatures; hydrochloric ether boils at  $52^\circ$ , alcohol at  $173^\circ$ , water at  $212^\circ$ , whale oil at  $630^\circ$ , mercury at  $662^\circ$ ; water, saturated with common salt, will not boil till it attains to  $224^\circ$ . Although steam, at the common atmospheric pressure, is never above nor below  $212^\circ$ , yet it can be, and is, increased in temperature by confinement under pressure. There is a great difference in the effects of low and high pressure steam upon the person. The steam of boiling water occasions a severe scald, it allowed to condense upon the body, but every engineer knows that his hand can be held, without scalding, in the exhaust steam of a high pressure engine, when it issues into the air; a thermometer placed in this steam shows it to be below  $212^\circ$ . This singular property of high pressure steam is connected with its great capacity of rapid expansion—in other

words, the law of absorption in the gases of the atmosphere, whereby the heat is rapidly extracted from the steam in proportion to its expansive force.

The elastic force of steam at temperatures above  $212^\circ$  is determined by heating water in a stout globular vessel containing mercury,  $m$ , (as shown in the annexed figure), and water,  $w$ , and having a long glass tube,  $t$ , screwed into it, open at both ends, and dipping into the mercury, with a scale,  $a$ , divided into inches, applied to it. The globular vessel has two other openings, into one of which a stopcock,  $b$ , is screwed, and into the other thermometer,  $l$ , having its bulb within the globe. The water is boiled in this vessel for some time, with the stopcock open so as to expel all the air. On shutting the stopcock, and continuing the heat, the temperature of the interior, as indicated by the thermometer, now rises above  $212^\circ$ , at which it was stationary while the steam generated was allowed to escape. The steam in the upper part of the globe becomes denser, more and more steam being produced, and forces the mercury to ascend in the gauge tube,  $t$ , to a height proportional to the elastic force of the steam. The height of the mercurial column is taken to express the elastic force or pressure of the steam produced at any particular temperature above  $212^\circ$ . The weight of the atmosphere itself is equivalent to a column of mercury of 30 inches, and this pressure has been overcome by the steam at  $212^\circ$ , before it began to act upon the mercurial gauge. For every thirty inches that the mercury is forced up in the gauge tube by the steam, it is said to have the pressure or elastic force of another atmosphere. Thus, when the mercury in the tube stands at thirty inches, the steam is said to be of two atmospheres; at 45 inches, of two and a half atmospheres; at 60 inches, of three atmospheres, and so on.

Woodworth Patent Pamphlets.

Any of our readers wanting a copy of the Report against the extension of the Woodworth Patent Planing Machine, in pamphlet form, can have one sent (post-paid) by enclosing two three-cent stamps. Its publication will occupy the remaining numbers of this volume, at the rate of two columns each week.

In connection with this notice, we can hardly omit to furnish our readers with the names of the Committee on Patents in the House, to whom the whole country is deeply indebted for the satisfactory manner in which this affair is placed before them. Seldom have we read a more able and convincing report. D. K. Carter, of Ohio, Chairman; M. M. Dimmick, of Pa., W. T. Ward, of Ky., Benj. H. Thurston, of R. I., and Alexander White, of Ala. Gentlemen, we sincerely thank you for having nobly done your country service.

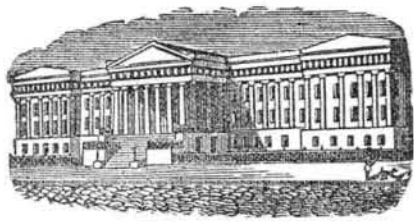
To Save from Drowning.

We have seen it stated in books and papers, that if a person falls by accident into deep water, he will float and not sink if he lies still and does not lift up his hands. The reason given is, that the head, having so much cavity or air space in it, will keep above the water, and thus prevent the body from sinking. This is certainly not correct; no person can float in deep water unless he has learned to do so by a great deal of practice. It is true that the body is more buoyant in salt than fresh water, but no person who cannot swim will float two minutes in sea or river,—he will soon sink, as we have seen in more than one case. All our young men should learn the art of swimming; it was part of the education of the early Romans, and should also be of the young men of our Republic.

Something Wanted for Engravers.

A substitute for boxwood, for wood engraving, is much wanted. This wood is very scarce; it costs \$500 per ton, and is all imported from Turkey and Italy; various kinds of wood have been tried to supersede it, but not one among all the varieties tried, has the same qualities. Hardness is not the only quality, it must be close in the grain and free from breaking before the graver. Type metal, with some change in the form of tools, may supersede it; the price of boxwood is getting higher every year.

The readers of the Scientific American will have the able Report of Mr. Carter to bind up in this volume.



Reported Officially for the Scientific American

### LIST OF PATENT CLAIMS

Issued from the United States Patent Office

FOR THE WEEK ENDING AUGUST 3, 1852

**RAILROAD CAR SEATS**—By C. P. Bailey, of Zanesville, O.: I claim in combination with a permanent seat or seats, a divided back, which is so constructed, that one part thereof shall swing around one end of the seat, and the other part around the other end thereof, the back always retaining its upright position, and by which arrangement, the two parts of the back may be entirely reversed, or they may be left tete-a-tete, substantially as described.

[See engraving in No. 45, page 356, this volume of the Sci. Am.]

**LOOMS FOR WEAVING FIGURED FABRICS**—By C. W. Blanchard, of Clinton, Mass.: I do not claim the application of the above-named levers to the trap or knot boards of the jacquard loom; but I claim, first, the opening or raising and depressing the harness by means of levers or bars oscillating about a fixed point or points, in connection with hooks, or their equivalents, which catch upon these levers or bars, and which constitute a part of the connections between the top and bottom jack levers or other devices, for raising and drawing down the harness, thus raising or depressing the heddles in a greater or less degree according as they are more or less distant from the fell or cloth making point, the motions of the harness all commencing and ending at the same time, as described.

I also claim the method, as described, of arranging and combining the parts for moving the figuring chain or cylinder, with the other parts of the machine, so as to carry the said chain or cylinder, back as well as forward as the machine is made to move backward and forward.

**PRESSURE GAUGES**—By Eugene Bourdon, of Paris, France. Patented in France June 18, 1849: I claim the application of curved or twisted tubes, whose transverse section differs from a circular form for the construction of instruments for measuring, in heating, and regulating the pressure and temperature of fluids, substantially as described.

**DUMPING WAGONS**—By Thos. Castor, of Frankford, Pa.: I claim the arrangement of the body on a fixed roller fulcrum on the frame of the running gear, in such manner that, by a slight amount of force, the body can be turned, to give its under side, which rests on the roller, either a forward or backward inclination, to cause the weight of its load to tend to hold it forward or back, as it is required to carry or to dump the same, substantially as set forth.

**TALLY BOARD**—By F. N. Clark, of Chicago, Ill.: I do not confine myself to any particular form or manner of arranging the screw rods over the board; nor to any particular manner of graduating the spaces; but I claim the manner of tallying or keeping an account of articles, as they are delivered or moved by means of screw rods, having nuts upon them, said nuts being placed over graduated spaces, which indicate the distance the nuts have moved, or give the number of turns or half turns of the rods, the rods, nuts, and spaces being arranged as described, or in any manner substantially the same.

**CASTING STEREO TYPE PLATES**—By H. P. Cook, of Albany, N. Y.: I claim the manner of casting stereotype plates by the application of pressure upon the surface of the melted metal in the inner kettle, which pressure forces the metal, while fluid, through a tube and upon the mould, the face of the mould being turned down to receive the metal, making the casting, the whole acting substantially in the manner and upon the principles set forth.

**LOOMS FOR WEAVING FIGURED FABRICS**—By S. & J. Eccles, of Kensington, Pa.: We claim, first, the star movers, whether they be arranged to slide, instead of the star wheel, or otherwise, and neutral surface, in combination with the star wheel (sliding or otherwise) arranged substantially in the manner and for the purpose specified.

Second, we claim the pins or pattern plates, or their equivalents, in combination with the diamond shaped projection or four-sided inclined plane lever, and star wheel, arranged substantially as described, for the purpose specified.

Third, we claim the guide in combination with star movers, and star wheel, as described.

Fourth, we claim the combination formed by the mechanism described, for giving a positive and correct motion to the jacquard card cylinder; that is to say, the star mover, star wheel, and connecting arms, with mitre wheels, or their equivalents, as made known; and the above mechanism is also intended to be applied to other description of looms, where lags and other similar devices are used, instead of the cards, as on barrel and other similar looms, therefore the claim is not limited to the turning of a jacquard card cylinder.

**ADJUSTING THE CHASERS IN SCREW CUTTING STOCKS**—By M. C. Gardner, of Brockport, N. Y.: I claim the adjustable band on which the index is lettered, for adjusting the index to the chasers, the same being adjustable to the wear of the chasers or chasers of different lengths, and in combination with suitable apparatus for causing said chasers to approach and recede from a common centre, for the purposes stated.

And I also claim the shaft, as shown, in combination with pinions, and the bevel gear wheel, at the outer end of which shaft is attached a crank, to drive the bevel gear wheel, as set forth and described, and for the purposes stated.

**SCALES FOR WEIGHING**—By Wm. P. Goolman & Wm. Holtseclaw, Jr., of Springtown, Ind.: We claim the making of the weighing beam of platform or other balances, or scales with two graduated arms extending in opposite directions from the fulcrum of said beam, and applying one or more movable weights or peas to each of them: the divisions on one arm, indicating the larger divisions of weight, and those on the other, any subdivisions or fractions of the larger that may be desired, substantially as set forth.

**JACQUARD LOOMS**—By John Goulding, of Worcester, Mass.: I claim, first, connecting the knot and trap boards with, and operating them by levers arranged substantially as described, so that the second row of heddles or harness shall fall and rise so much farther than the first, and the third than the second,

and so on through the entire series of heddles or harness, that as the warp is sprung, the threads in the same shed from each row of heddles, whether front, middle, or back, and whether sprung in the top or bottom shed, all lie substantially in the same plane.

Second, the apparatus which inserts and draws the wires to form the pile, constructed and operated substantially as described.

Third, the devices for locking and unlocking the beam or beams containing the warp, substantially as described.

**OX YOKES**—By Ezra Hough, of St. Johnsville, N. Y.: I do not claim the slides, independently of their connection, as they have been previously used; but I claim the connecting of the slide, in which the bows are secured by means of the chains and rods, the chains passing over the pulleys, by which neither of the slides nor bows can be moved laterally without communicating a corresponding opposite motion to the other, thus keeping the oxen at all times at equal distances from the centre of the yoke, the chains, rods, and pulley arranged as described, or in any other manner substantially the same.

**ELASTIC HORSE-SHOE**—By J. O. Jones, of Newton, Mass.: I claim the shoe formed with two plates, between which a sheet of vulcanized rubber, or other elastic substance is interposed, in the manner and for the purpose set forth.

**SCYTHE FASTENINGS**—By Alpheus Kimball, of Fitchburg, Mass.: I claim to make the fastening bolt of the toe act against the side of the toe, or laterally against the shank, in combination with making it, or the bolt and shank, with the peculiar curved projection and recess, and the flattened face stirrup, or confining contrivance of the heel of the shank, so as to allow of the lateral position of the heel being changed or varied, as specified, whereby the angle of the shank part of the snath and of the blade, may not only be varied to any extent within certain limits, but the toe of the shank as usually made, confined down by other means, than that which operates to secure the shank (at its heel) to the snath.

**RE-ISSUE. MANUFACTURE OF BULLETS, &c.**—By George W. Campbell, of New York City. Originally patented Nov. 27, 1847: I claim the method of casting bullets, &c., in a succession of connected moulds, is joining them together, so that they shall separately come together in vertical planes at right angles to the line of motion of the series, or nearly so, substantially as specified.

**DESIGNS. COOKING STOVE**—By Samuel Eberly, of Mechanicsburgh, Pa.

**WATER COOLER**—By Patrick Molony, of Cincinnati, Ohio.

**COOKING STOVE**—By Russell Wheeler & Stephen A. Bailey, of Utica, N. Y.

**COOKING STOVE**—By Garretson Smith, H. Brown, and Julius Holtzer, (assignors to North, Harrison & Chase), of Philadelphia, Pa.

#### Woodworth Patent.

[Continued from page 374.]

Where an application like this is made for a third extension, it is material to consider the degree of merit in the invention, the extent of remuneration already received, the manner in which the previous bounty of Congress has been applied, the mode in which the power hitherto vested in the applicant has been exercised, the operation of the previous grant upon the public interests, the effect of a new grant upon the rights of other citizens, and the nature and extent of the new burden to be imposed upon the country for a long series of years.

It is not claimed that William Woodworth, in 1828, invented anything more than an improvement in the method of dressing boards by machinery. Planing machines had been for many years in extensive use in the United States as well as in Europe. The inventions of Bentham, Bramah, and Muir, in Great Britain, of Roguin and De Manneville in France, of Hill, Hale, Minor, and others in this country, were known to the world. That many of these were valuable and effective machines, is attested by the fact, that in many localities they are still used in preference to the Woodworth machine; and that by adapting to them the improvements of other recent inventions, the most successful machines of the present day have been produced. The affidavits furnished by the administrator on his application for the first extension, show that the Woodworth invention, for some years after the patent, was a failure in practical operation.—The fact hardly seems to be disputed, that no machine built in conformity with the description in the patent of 1828, ever was or ever could be successful. The fact is undisputed that the valuable features of the present Woodworth machine were first described in the patent of Uri Emmons, which expired and became public property in 1843. The fact is also undisputed that Emmons would not permit his improvements to be incorporated in Woodworth's machine, until Woodworth obtained his consent by uniting with him in a mutual and equal partition of the whole country between them. The fact is undisputed that since the introduction of the features of the Emmons patent into the Woodworth machine, it has become successful and valuable. Long after the death of both the patentees, an attempt was made to prove

that Emmons had no right to what he sold, and that Woodworth owned, before the purchase, the right which he acquired under it. The attempt was successful in the Pennsylvania circuit; but the question is now at rest, having been finally disposed of by the decision of the Supreme Court of the United States in the case of Wilson vs. Simpson, overturning the allegation that Woodworth was imposed upon by Emmons, and holding that the evidence was illegal by which the fact was sought to be established. (9 Howard's U. S. R. 120.) In the recent case of Brooks et al. vs. Fiske et al., decided in the first circuit of the United States, it was held that the Woodworth machine was merely an improvement on the Hill machine. In the circuit court over which Chief Justice Taney presides, the fact was found by the verdict of the Maryland jury, that the patent re-issued to the administrator in 1845, was for an invention different from that secured to his father by the patent of 1828.

That the improvement devised by Woodworth was meritorious is undoubtedly true; but that it is equally so with improvements in planing machines, since made by other inventors, will scarcely be contended. Yet it has demanded and received a larger bounty probably, from the government, than any twelve of the most prominent American inventions in the leading departments of mechanical genius. William Woodworth, the patentee, who best knew how much of the machine was his own invention, did not claim to be the inventor of the combinations which are put forth in the claim of the patent as re-issued to his administrator five years after his death. Indeed, one of the publications left with the committee by the memorialist in support of his application, contains the affidavit of the patentee, made the year before his death, in which he substantially repudiates, as forming no part of his invention of 1828, the very combinations afterwards claimed in the re-issue; and swears that another machine, containing those combinations, which has long since become public property, was no infringement upon the patent. If that patent has since his death acquired an additional value by absorbing all other improvements in the expanded claims of the re-issue, it is rather to be regarded as the misfortune of the country, than the merit of the patentee.

The estimate placed by William Woodworth upon the value of his invention in 1828, the year when he obtained his patent, is shown by his sale to Strong of half the right in the United States for fifteen hundred dollars. In 1842, William W. Woodworth, on applying for the first extension, submitted, in support of his claim, the affidavit of James G. Wilson, estimating the value of the invention at three hundred thousand dollars. The memorialist claims to have sold to Wilson in 1845 the entire right in the United States, except in the city of New York, for the whole extended term of seven years, for fifty thousand dollars. If these practical tests of value are to be regarded, the immense tribute from the public for the first ninety days of the extended term vastly overpaid the whole value of the invention.

The committee felt the importance of ascertaining the extent of remuneration received by the memorialist through sales of rights, and licenses to use the machine under the Woodworth patent; and urged upon him strongly the importance of furnishing this information. The administrator thought proper not to comply with this request of the committee. They might, with entire propriety under these circumstances, apply the rule that when a party possessing the means of knowledge chooses to withhold it, and declines to disclose facts material to the inquiry, every presumption is to be taken against him. But the committee were not inclined to indulge any such presumption, and they accordingly resorted for information to the records of the Patent Office, the various documents before them, and the various papers filed by the memorialist on former applications in relation to the patent.

The abstracts furnished from the records of the patent office show very clearly, that the papers upon which the board acted in granting the first extension, as well as those upon

which Congress acted in granting the second extension, failed to disclose the true amounts which had accrued from the invention. The memorials to the last and present Congress do not assume to give any account of the receipts of the administrator. The memorial to Congress during the session of 1844-5, professed to give an unsworn statement of receipts and expenses, though in a very vague and general form. But this extended only to its date, leaving four years and nine months of the unexpired term of the first extension still to come. For the receipts of this period of nearly five years, no account is given in any of the memorials. Nor is any credit given by the memorialist for the proceeds in damages and costs of those innumerable suits against "wealthy infringers," in which he claims to have been so uniformly successful; though the expense of those litigations is brought in upon the other side as a claim against the government. Nor is any credit given for the enormous sums paid to those to whom the administrator from time to time assigned shares in the public bounty of which he was the beneficiary. Upon what understanding these assignments were made, the committee do not know, except so far as it may be inferred from the continued amicable relations of the parties, the unbroken succession of conveyances through the whole period to the same grantee, and the common exertions of both parties in each instance down to the present time for further grants from government, in the name of the administrator. But even upon the showing of the applicant himself in his various memorials, corrected as to some errors by facts subsequently developed, it would seem that \$52,733 32 had accrued to William Woodworth from the invention prior to his death; and that the amount which had accrued personally to W. W. Woodworth, administrator, prior to June, 1845, including the amount of sales by his father, was \$264,013 32; leaving still unaccounted for, all that remained in his hands of the unexpired term of over four years of the first extension; the reservation in the grant to Wilson, under the second extension, of the city of New York, the most valuable right in the country; all the proceeds of the litigations; all the receipts by himself and his father from the various machines in the running of which they were themselves interested; and all the proceeds of the sale of the re-issued patent, which was granted to Woodworth on the 8th of July following, and conveyed to Wilson on the following day.

Assuming that these were all the returns which had been received from the invention, and that they could be estimated collectively at as low a sum even as half a million of dollars, does it not seem incredible that a further claim should be made upon the bounty of the government? But this is not all.

[To be Continued.]

#### New Steamers.

Two first-class steamers called the Andes and Alps, are at present building at Dumbarton on the Clyde, for Messrs. Burns, and are intended to run between Chagres and New York. A ship of 2,000 tons is now building in Liverpool, of soft wood, and on the model of the American ships, to prove by experiment in how far English ship-builders can compete in cheapness with Americans. A steamer of 213 tons, named Lady le Marchant, and owned by a company in Newfoundland, was launched at Greenock on the 21st. She is intended to ply along the Newfoundland coast.

#### Balloon and Steam Engine.

Another attempt was recently made at the Hippodrome, Paris, to solve the problem of steering balloons. A balloon, in shape like a whale, was filled with gas and attempted to be guided by means of a shaft of wood suspended horizontally with a sail at the end, to act as rudder. To this shaft was affixed a platform with a steam engine of four horse power, working a screw with three terminal paddles like three sails of a windmill. The experiment was made in presence of several scientific men, but was unsuccessful.

Some very important experiments have recently been made with anchors, in England—an American one among the number.