of large amounts, that get into comparatively few hands. But the public Journals break them into small sums, and promote an active and healthy circulation of single dollars, halves, quarters, dimes and cents, that meet the wants and means of all conditions of men, enabling the poorest to lay up something. In this department newspapers have a work before them of transcendent usefulness.

It has only been by the repetition of long continued, tedious and disjointed efforts that acquisitions in social, civil and physical science have been made. At every branch of the tree of knowledge man has made blind passes; standing on tip-toe and stretching forth his hands he has beat the air in almost every direction but the right one. In all professions he has run hither and thither after nonentities, and has not ceased running after them. Is it essential to his progress—a law of his being—that he should thus labor to find out truths for himself; grope and struggle, and flounder and struggle again and again, ere he succeeds? Perhaps so: that their worth may be impressed on him by what they cost him.

There is certainly as large a number of believers now in the existence of a self-moving principle in mechanics as ever, and probably a much larger one; nor is there any lack among them of men of intelligence in other matters. Merchants, Editors, Teachers, Lawyers, Legislators and Divines are chasing it as eagerly as boys after butterflies, and every now and then exclaiming they have got it. Some sly ones think to steal in and seize it under other names such as "Lever Powers," "Pendulum Powers," "Power Helpers," &c. A few, though clearly not the most artful, of strategists have, on being balked, strangely called in animals to assist them to drag the lurking fugitive to light.

Others complacently shrug their shoulders and move in a different direction. They are sure it is not in, and therefore cannot be drawn out of, cold wood and metals. With them it dwells in fluids—in water. They suspect it worked some ancient water-wheels and was concealed from the vulgar in legends of romping naiades throwing themselves on and bearing round the buckets. The mechanism they put in requisition consists commonly of upper and lower cisterns, breast and over-shot wheels and all sorts of water-lifting apparatus. To this sect belong quite a number of practitioners, who, like those that experiment on the human machine, rely mostly on mercury, which they have exhibited in various forms and modes and in unusual quantities, but without any very encouraging results.

Some again surmise that it affects a rarer medium than thick liquids and an elastic one—that it is a spirit of the air. They entertain hopes of disclosing it by a series of vacuums and plenums—that by stretching and squeezing it in some expanding and compressing apparatus, it may be or tortured into submission and made to show itself. One or two have asserted that by means of modified air-guns they have startled and made it leap out of its lair, and have actually caught it—but somehow or other it has always been found missing when friends of the sportsmen called to see it. Occasionally those who believe in water call in atmospheric aid.

Then there is a class of experimenters who, despairing of finding the tantalising thing in solids or fluids, in air, or earth, or water, are inclined to put their faith in fire—in successive or alternating changes of temperature. They think by genial warmth to attract, by freezing it into torpidity to arrest, or by treating it like victims in the brazen bull of Phalaris, as De Bois Guilbert was about to use Isaac of York, to make it cry out and yield. Of course, it would not do for them to use common fuel as that would be consumed and have to be replenished. To succeed they must rediscover the everlasting lamps of old, or accomplish something like feat of the ancient Friar, who, visiting in winter a family destitute of wood and coal, heated the house and oven with snow—and to please the palate of his hostess converted a tubful into a pail of butter.

There are believers in "Buoyant Power;" a somewhat common mode of developing which is to suspend a large, light and air-tight hollow drum on a horizontal axis and enclose a segment at one side in a tall close box or tank in which it is made to turn. Then filling the box with water, the immersed part of the drum is to rise like a mass of sunken cork, or be pushed up as an empty bucket is when held bottom downwards in water, and thus produce a powerful, continuous and ceaseless rotation of the drum, and in the cheapest possible manner turn anything attached to it at no expense at all.

Blessed and forever blessed will he be who thus constructs even a working grindstone: one of *wood*, for example, with its periphery coated with emery or sand, and which, by confining the water in its trough on one side, becomes self-acting. The man has not lived who could calculate the value of such a discovery, or the amount of bone and muscle, of sweat and sinew, it might have saved and would henceforth save. What is there in domestic labors that a barrel of water standing in a corner could not then do. It would reduce servants' wages to nothing. In the field and factory the device would soon supersede laborers. No wheel-carriage would wait for a horse or mule to drag it, nor paddle wheels and locomotives want steam to turn them. Nature herself would feel lively in the change. But, alas! the equilibrium of these drums has not been disturbed. The immersed part does not become lighter for the bath, and consequently motion has not followed: and, what is more to be deplored, the realization of these great things is postponed.

Of those who confine themselves to vibrating movements, some make an automaton gentleman seated in a rocker, and endeavor, hitherto in vain, to induce him to keep moving by drawing in one or both his lower limbs; or alternately to incline backward and forward his body; a plain moveable leg to the chair would cost less, and be quite as efficient. All wheel and lever powers, when divested of deceptive and useless accessories, come to much the same thing. Here, the object is to protrude and retract one arm of a balance so as to make it alternately heavier and lighter than its fellow. There, weights at the end of spokes are pushed or made to run farther from the center on descending than on ascending sides of wheels.

There are those who indulge visions of rolling balls (and their cognates) set to whirl round inclined rings and tables, and expected to gather momentum enough in descending to carry them up to and over the starting points—and, as a necessary result, to keep on rolling. Unfortunately, some slight matter has always been wanting, and it is not yet found out by these artists.

So, also, with "Centrifugal Power"; wheels once set agoing are to increase in velocity till, like bursting planets or grindstones, their materials cannot hold them together, and their very authors fly from them in alarm. We joined a party, several years ago, to witness the operation of a centrifugal machine in a small wooden building. It was worked by hand; the fly was of the primitive form—heavy balls on the ends of separate arms. The crank was turned till, of a sudden, the arms and balls were thrown, one toward the roof, and others against the weather-boards and windows. We rushed out uninjured, and the inventor with us. He inquired triumphantly what we thought of that, and wondered at our declining to purchase interests in the discovery of his Power Generator.

That velocity can be increased without corresponding consumption of power is an old form of the perpetual-motion problem, and like all its kindred is a figure of straw and wind, dressed out and set on its legs by arguments, and knocked over and demolished by facts. All our working mechanisms oppose it, and though it has been petulantly said, "they ought not," how are they to be induced to become more complacent? Let the proposition be interrogated as every practical one ought to be, by experiment, and it tells the truth. Neglect this test and you are in danger of believing a lie. In one thing at least, artificial machines are akin to living ones—the faster they run the sooner they tire. Machines have been set up to contradict this expression of a universal law; and on trial they have started off easily like race-horses, and been quickly urged into a sweeping gallop; but soon as the lash was laid aside, instead of going on swifter and swifter, they gradually slackened into a canter, a trot, a walk, and at last stood stock-still—staring the truth in the faces of all present.

Another and more agreeable phase of much the same principle may be contemplated in the devices of those who dream of resilient balls—light, elastic, airy leapers—which dropped perpendicularly on rebounding floors are invited to spring back as high as from whence they fell. When they do this they will without difficulty and as a matter of necessity continue their saltations—there would be no stop to the dancing. And could they be made to ascend the veriest trifle above the spot they drop from, they would rise in time above the clouds and finally leave the planet altogether—reversing the common action of gravity which makes all earthly things cleave to the bosom of their mother. From her they have to be forcibly taken and even then can only be momentarily kept from her. There might be some difficulty in converting this kind of motion to practical purposes but it could undoubtedly be overcome.

Nor have eclectics engaged in this search been more fortunate than others, although still affecting pity for such as spend their means of living, and the best part of their lives in delving at one place for what must be dug out of several places.

A number of experimenters, worn out by disappointments, abandoning all hopes of success from the foregoing schemes, unable to endure longer suspense and determined to end their troubles, go straight to the apothecary and purchase drugs enough to extinguish a dozen lives. Be not alarmed, they don't buy with a view to swallow them, but, as a final attempt, to ascertain if virtue can be found in them to bring up the spirit they seek. Something has whispered that it may be lying perdue in acids, alkalies and such things as chemists deal in, that a little copper, zinc and aqua-fortis, a few yards of wire and a piece of soft iron may peradventure have the power to bring it forth. Indeed these and kindred things did at one time excite strong hopes, and by some ardent seekers have not yet been abandoned.

Still among the disappointed there *have* been suicides. It is a melancholy reflection that in this wild chase, through what might be called trackless wastes, many a victim has fallen; and victims whose bleached bones serve not as warnings, for still there are those who, unable to bear up under invariable defeat, plunge into the vortex of despair. Because they cannot find that which does not exist, and therefore is not to be found, they foolishly and wickedly put an end to themselves, for not even so much as an ignis fatuus,

But of the victims that immolate themselves to perpetual-motion idols, there are those who neither die by the rope, knife or water, nor by being broken down with grief, but from the heart suddenly bursting with joy. With some, perhaps with all, it happens thus. The last and most promising contrivance turned out, on experiment, like every preceding one, a failure. Exceedingly and beyond all measure loth to give up the cherished hope, devices to overcome the supposed obstacles are thought of by day and dreamt of by night. At length a new idea presents itself, and withit a solution of the problem, so clear as to leave not an atom of doubt. Every difficulty flies before it, and the great thing so long sought for at last *is* found: *no need even to verify it experimentally.* The vision and the prospects opened by it are too much for the seeker: he drops and dies in an apoplexy of delight, and the laughing demon to whom he had sold himself adds another to the melancholy lists of souls deluded and destroyed by his wiles.

French papers furnish the following recent example:

"*Death from Perpetual-motion.*—A Watchmaker named Vital Moineau, residing in Paris, recently died of a fit of apoplexy, caused by excess of joy, in having finished a perpetual-motion machine, on which he had been engaged for three years. When it was completed he exclaimed, "I can now die content, my task is terminated."

There may be something soothing in the thought of individuals departing this life in a rush of innocent delight, but the exit of those who ignorantly worship a false spirit and sink into oblivion, smiling martyrs to it, is distressing. They consume their souls in wrestling with a shadow, drain out their life's blood and perish in grasping at an apparition. Though death to them, their efforts amuse spectators very like the fierce pugilistic conflicts between oriental jugglers and gigantic figures of pasteboard.

Others there are who, if not more successful, take more care of their health. Rightly concluding that the secret is not to be found out by human means, they have recourse to higher powers, and though none have yet succeeded, (some think they have) they are by far the happiest hunters after Perpetual Motions within the circle of our experience, and in one respect the most consistent, if not the most philosophical in other respects.

It would excite surprise in some persons and regret in others were they informed of the extent to which the religious sentiment is associated with Perpetual Motion schemes—of the number of sincere but weak-minded men who make the solution of these impossible problems a special subject of prayer, and who accompany their petitions with diverse vows to induce Heaven to be propitious. Some promise to disclaim for themselves all credit for the discovery and to do nothing but good with the proceeds; others propose just such kinds of conditions as are offered daily in some countries at the shrines of saints for securing prize-tickets in lotteries and other wordly objects of desire. What curious pages in human history and strange movements of the human heart would the acts and lives of these disclose! As man is so are his gods; the characters of both expand and contract together. One, persuaded that to him the long-sought secret has been revealed, resolves to give the free use of the discovery to his own government and moderately tax foreign ones. Another, after tendering good agencies to his friends and strong inducements to purchasers of State rights, will assign liberal portions of the profits to erect Churches, Colleges and Free Academies; and to his mind, far from these being baseless fabrics—mere castles in the air—they are as good as built, so sure is he of shortly having the means to buy the land and pay the builders.

The number of patents granted in the United States for perpetual motions and kindred abstractions cannot well be ascertained. The records of the Patent Office were destroyed by fire in December 1836, and although Congress made provision for the gratuitous recording anew of all Patents previously issued, it is supposed that between five and six thousand have never been sent in for that purpose. The reasons for withholding them were various: Many had expired. Others had no commercial value and some were of such a character as to make their owners no longer anxious to associate their names with them; for prior to 1836 every applicant received his Patent, no matter for what absurdity. The office had no power to refuse one.

The "*List of Patents for Inventions and Designs issued by the United States from* 1790 *to* 1847"—*Octavo*, Washington, 1847, contains, as might be expected, not a small number of perpetual motions, but they almost always appear under other designations. They might be arranged in families and be distinguished, like those of the Indians, each by its totem. Thus while by one group the *pendulum* is chiefly relied on, another prefers the *lever*, some expect great things from *weights*, *magnets* and *springs*. In this class the *wheel* is everything, in that, *air*, *water*, *mercury*. Then others as already remarked, make a selection, being persuaded that a *combination* of more or less of them can accomplish that which single and separate things cannot.

We subjoin various examples of abortions patented in this country—and the records of foreign patents are quite as rich—most of them dating previous to 1836. Others are concealed under less suspicious titles:—'Pendulum Power,' Pendulum Power and Lever,' 'Power augmenting Engine,' 'Power Extending,' 'Power Gaining,' 'Power Helping' machine. 'Power and Motion of Weights' 'Power propelling Machinery by Lever and Dead Weights,' 'Secreting Motive Power,' 'Propelling Mills of Weights,' 'Combination of Lever,' 'Combination of Lever, Crank, Weight and Balance Wheels, &c. &c.,' 'Lever gained Power,' 'Lever Power,' 'Lever accumulating power' 'Sawing by Lever Power,' 'Propeling machinery by Lever power,' E pluribus Unum, a Combination of Levers and Wheels,' 'Propelling boats by Lever Wheels,' 'by Levers and Weights,' 'by Man Power,' &c. &c., 'Anti-steam boat,' 'Propelling vessels by Pendulum Power,' &c. &c.

A perusal of the following memoranda of recent specimens would tend to cool the ardor of inexperienced aspirants, and may haply deter others from entering on the search. To those familiar with devices of the kind there will scarcely appear one that is not more or less identical with such as have been proposed over and over and over again during the last two centuries. On this subject, as on all others that inflame any particular class of minds, the same ideas spring up in distant times and places, and will continue to spring up. Various degrees of mental aberration are necessarily manifested, but in much the greater number of cases it rises little above zero, in some considerably higher, and in a few to fever heat. But look at these inventions as their authors describe them; we make no changes from the original spelling:

"A lever power, worked by a man that will propel boats, saw-mills and other heavy bodies."

"A perpetual forcing-pump, which will force water to any required height by the lateral pressure of the water, and the greater the elevation the greater the power of the pumps."

"A self-propelling apparatus that has been tried and found to operate, making it no longer true that self-propelling power cannot be given to machinery. President Taylor is asked if he or Congress would promise the inventor, who is poor and aged, a suitable reward on its being exhibited."

"A new mode of generating power for driving all kinds of machinery by weights." [Same thing patented in 1825.]

"A perpetual motion, for which the inventor asks a million of dollars. As he is not used to handle tools, he offers to deduct a hundred dollars if the purchaser makes the model himself!"

"A perpetual-going machine—a wheel delicately balanced on its (horizontal) axis, and one side slightly tempted to be made heavier by a roller at the end of a jointed arm resting upon it."

"A plan to lift up saw-logs, houses and trees by water and electricity."

"A perpetual motion by means of a pendulum. Witnesses of the movements certify that there will be continually *re-created* greatly more force than is necessary to keep the machine in motion, and consequently it will be a self-operating machine."

"Obtaining power by means of a weight or pendulum—an overshot wheel—the water to be thrown back upon it by pumps in the working of which quicksilver is to assist."

"A self-acting machine propelled by lever power, and weights rolling to and fro on an inclined plane. The models work well, and the increase of power is unlimited."

"Horse power doubled by the mere addition of a level wheel to the gearing."

"A hollow wheel that moves perpetually by means of weights and water pressure."

"A machine for producing motion and perpetually continuing it by the power of weight."

"A power perpetual in itself reduced to practical operation, and constituting what is called a Perpetual Motion. The inventor has no hesitancy in saying he has discovered it, and wishes to be informed before describing it, what amount of money has been offered for it."

"A perpetual water power for mills without cascade or fall of water."

"A perpetual power to propel ships."

"A lever power by which two men will move as much dead weight as twenty."

"The inventor of Perpetual Motion has invented a churn that will head off all others, taking no power to work it."

"A self acting rotary Pump to supply water power to propel boats and other machinery."

"A self moving Caredge of great use to the publick on public roads."

"A new motive power on an entire new principle—the inventor wishes to know if there is, or ever was, any motive power excepting the wheel and axle."

"Raising water in such a manner as to create a self producing power, the motion will cease only with the durability of the machine."

"What is the amount offered by the U. S. to the person who shall invent a perpetual motion, and is just a motion all that is required."

"A wheel upon the principle of the lever connected with gravity so as to produce self-motion."

"A perpetual self motive power—to be described when Congress makes a suitable appropriation to reward the inventor."

"A ball or wheel ever rolling round a circle. It has been made to go till something gave way."

"A wheel designed as a prime mover for propelling all kinds of machinery now used throughout the habitable globe."

"An everlasting water wheel that supplies itself with water, and can, for that purpose, draw it out of wells, ponds and rivers."

"A self Propelling machine And per Petual Mothion that Wil draw the Whatter oute of the River And through it on a bilding and put oute the fire in Case of fire. The cittysens of Washington on paying a small sum may have the use of it for the Citty Use."

"A French Perpetual motion sent through the American Legation. A wheel with weights to run as usual from the centre on the descending and return on the ascending side, by L'Abbé Patrice Mac Keone, D. D. D. M. &c."

"A self generating hydrostatic power by a combination of buoyancy and weight."

"A perpetual motion by a combination of springs. The machine has worked, does work, and will work."

"A machine that will run perpetually till the materials wear out, the result of two years' study on the Perpetual Motion."

"The greatest discovery in the science of raising water from deep fountains ever made. By it the elementary principles of nature are harnassed up so that water may be taken from the deepest wells with as much ease and dispatch as if it was near the surface."

"A machine by which power is increased without loss of speed; and it will give speed without loss of power."

"A horse power, by which one horse does the work of three—a consequence of the discovery of the true proportionate diameters of (or number of teeth in) the cog-wheels and pinions and the length of the arms to which the animal is yoked."

"A perpetual motion—not completed on account of poverty—the fruit of fifteen years study and sleepless nights."

"A new mechanical power, producing any desirable amount and solves the world's great question: The Perpetual Motion"

"An invention by which any amount of speed and power can be given to all descriptions of machinery. The discoverer will sell it for one hundred thousand dollars. Is sure it is no chimera."

"To gain power by lengthening and shortening one end of a vibrating beam which is to give motion to a crank and fly-wheel by a pitman."

"A Perpetuum Mobile by a German citizen who is alarmed at the announcement of the same discovery in Constantinople, Turkey, lest it should interfere with his claims to priority."

"A new motive power in which the natural force of gravity will cause the wheels to traverse the track by their own weight, and their motion accelerated by charging them with quicksilver, or by any weight either of mineral, liquid, or other substance that can be named."

"A plen of the perpetl moshen whitch wil be worked by water—I have some hands A sisting me making of it & they may from mi moderln make won—It is claimed from the Dat of this letter."

"A perpetual motion by connecting a series of condensing and exhausting air pumps with two vessels, one containing compressed air, in the other a vacuum is to be maintained."

"A perpetual moving wheel—one side born down by heavy balls which are to be got up again on the other."

"A self-motive power by suspended weights and combining centripetal and centrifugal forces."

"A new mode of propelling machinery by dead weights—by which any given amount of power may be produced." [The rim or edge of a vertical wheel is to roll on that of one below it and set and keep both agoing.]

"A Brother Jonathan or self moving wheel: an overshot wheel with chain pumps to throw up the water that carries it, by which the wheel will have a surplus power to propel a boat or do any other kind of labor."

"What is the amount offered for a perpetual-motion? By who and where is the motion to be exhibited to secure the claim?"

"A perpetual motion discovered after eighteen years hard study,—by placing two wheels at work on inclined planes—"

"A certain new and useful machine having perpetual motion, liable to stoppage only by natural decay and external force—the power to supercede any and every other power known; it is not quite finished."

"A plan by which the water that carries round a breast or overshot wheels can be returned."

This last idea, worn out centuries ago, is continually being revived. The wheel is to work the pump, and it is to work the wheel, a species of reciprocal politeness which if once realized, a perfect hurricane of automatic movements would be got up: every two forms of wood and metal put together would, like twin tumblers or double stars, be for ever rolling over or pushing along each other. The scheme is a ruder affair than at first glance it appears. To introduce machinery for forcing up through the same elevation the whole of the motive fluid is preposterous and for this beside other reasons: if no more water be let on the wheel than just sufficient to turn it, there would of course be none to work the pumps: but if a sufficiency be added to work them, it would clearly be out of their power to throw up more than was expended on them—and not near as much without supposing an impossibility in their favor (that they required no power whatever to work them in air) as the lesser quantity could not raise the larger—hence not a drop of that consumed in moving the pumps could be returned by the wheel, nor a drop spent upon it by them.

The introduction of pumps therefore, or their equivalents, so far from leading to the solution of this form of the problem, takes the novice farther away from it. It increases instead of lessening the difficulty. If he cannot contrive to make the wheel itself take up on its ascending side the descending fluid, it is worse than useless to introduce more mechanism for the purpose. Every additional piece presents a fresh obstacle in itself, and induces a corresponding retardation in the movements of the rest. Old projectors surpassed modern ones on this point. Not one recent specimen belonging to this large class of devices approaches in neatness that of Bishop Wilkins—Oliver Cromwell's brother-in-law. Instead of water wheels working all sorts of pumps through levers, cranks, cams, cog-wheels and pinions, &c., &c., he combined the objects of all in one simple instrument:—an inclined hollow screw through which the water was to be raised, and discharged at the upper end on buckets attached to the exterior of the screw. When this idea first struck him he could hardly contain himself—"it seeming so *infallible* a way for the effecting of a perpetual motion—but upon trial I find it altogether insufficient." [See Ewbank's Hydraulics for this and other attempts.]

Of another and a very common class, weights to move in and out on the arms of wheels—Worcester in the 50th proposition of his Century of Inventions gives an example. He had a wheel fourteen feet in diameter and forty weights of fifty pounds a piece. The experiment was tried at the Tower, in presence of the king and other dignitaries.

"They all saw, that no sooner these great weights passed the diameter-line of the lower side but they hung a foot farther from the center, nor no sooner passed the diameter-line of the upper side, but they hung a foot nearer. Be pleased to judge the consequence."

In this matter Worcester acts the Charlatan. Instead of asking the reader to judge of the result from his deceptive representations it would have been to his credit had he ingenuously acknowledged that the wheel moved not a hairbreadth except from the application of external force. Had the scheme been what he insinuates it would have had better claims to the title he gave to another.—"A Semi-omnipotent Engine." But let us continue our list of specimens:

"A poor man and a minister of the Gospel has invented what by mechaniks is denominated a perpetual-motion—on the weight, Lever, and pendulum principle, and desires to know what the government has promised for the discovery!"

"For making boats rush up rapids by one who has such an exalted opinion of this mighty, vast, extensive government that fils him with vast contemplations and strong aspirations for its advancement and glory in having the period of his existence in this advanced stage of its glory, and full proof of its being the iron part of Nabechadnazers image that shal brake and subdue all others Dan 2 40 and the grate lite of the north ezeikiel 14 and 16 &c. &c. &c."

A disappointed inventor observes:

"Useful men had as well let their useful arts be sealed up in oblivion as to make them known, and so I believe that the wrath of Almighty God will soon be poured out on our land according to the combination of propersy. I do not think patents will be worth anything in a short time."

"A machine (not described) that will succeed better when Daniel's Leopard and Cubs are in office and Esdra's Eagle is out."

"Perpetual motion is extent. Concaternation of affinity is the gearing. All the planets in the spheres, and all the neucleuses of all the atmospheres, sometimes convex sometimes concave, expansion and contraction, the philosophy of vibration, evolution and revolution, wheel and counter wheel the force of vacuum, &c., &c."

"A new machine to be propelled exclusively by weights the advantages of which are its pecuniary savings, weights being substituted for steam, water, wind, &c.

"An experiment which will do away with steam-power. It wants no fewel, but will run as long as the ex or shaft will ware, if it should be cast two feet throgh its center. It is to be a free gift to all those who do not pay taxes to the amount of $50,000, but all thoes who pay that must buy it. It must be placed in a proper place in each State and County for the benefit of the poor, the widdo, and the fatherless; and if Congress will send me a line I will show them that which they will not believe, for most men will not believe that there is or can be any such thing invented. All that I have got for to say to such men is jest look back to the days of Luther when he started, and here I would request the learned philosophers for to read amos and sefanish."

"A self-moving machine; the plan is so perfect within itself that it does destroy all counter action and all friction, and cannot be improved on, but the wheels and the buckets and weights can. The plan is sertain and the thing is shure, for I did find it in the first chapter of ezeekel. One thing I would like for to no why I do have so hard work for to make the people of this age of the world for to believe the truth since I have had a plan, a simple modle of this for five years. I do believe I have a harder time than Christofer Columbus did with his discovery of America, and do have the most positive proof for this. Jeremiah 18, 3 Daniel 7 9—and may God ad his blessing to his word—Isaiah 24."

"A self-moving whele—the descending weights can be fetcht back to the top of the whele and hier, and a hundred times faster than they go down again. The inventor feles a deep sens of obligation to God and to his fellow-kind, and is beath humble and thankful to God for the wisdom and nollege that He hath given him above all other men, in bringing about the simple truths of facts which have been so long amistry to man kind, and which all most all men do call an impossibility, and which is so easyly accomplished with experience and judgment and nollege."

"A list of inventions which, under God, the author claims as His agent: among them a perpetual motion, 'revealed to him during a fit of sickness, in which he lost his senses.'"

It is unnecessary to enlarge on this feature. An additional example may suffice: A man in the vigor of life, dressed much like a shaking quaker, wanted to have some conversation with us on inventions. He had got one that would save hundreds, thousands and tens of thousands of souls. He knew that a second flood was coming—had been down South and South-west warning the people of the approaching catastrophe. But he could save them by "swift messengers"—a new species of water craft that "would go anywhere in no time"; they were to be "built of bull-rushes and propelled by lactricity," and he thought of patenting them. Hinting that it was rather questionable morality to demand a monopoly of a discovery that could rescue so many of his fellow-beings from death, he quickly replied—"I have thought much of that—my mind has been exercised about it all the way up from Alabama, but it's all right now: I'll save the saints for nothing, but the sinners, darn 'em, I'll make *them* pay."

Add to the foregoing examples, and they are not all which might be quoted that date no further back than three or four years, the large numbers that are never publicly known, of inventors who work in private; and it may be surmised how prevalent the old, often exploded but fascinating delusion, continues to be. There are no signs of its becoming extinct by the close of the nineteenth century. On the contrary, it bids fair to enter the twentieth with a host of worshippers more numerous than ever. Then, as now, will be found men of education and general intelligence, ingenious artisans and other persons less informed, turning their backs on the great realities of life to gaze on vacancy for a spectre, an airy nothing, who will run to and fro in quest of a phantasm. Some will indulge in lethargic feelings to entice and retain in their imaginations the wished-for apparition; and others, as we have seen in our day, will drug themselves with the opiate till their delicious dreamings end in mental delirium tremens.

Whenever man can of a few pieces of earth make an independent self-moving automaton (shape is nothing) the feat will rival that of his own formation out of dust. It would be a greater one and a miracle not equaled on our globe. There are no movements on earth, in air, or under the earth, without an outlay of something—a consuming of something foreign to them. All organisms, vegetable, and animated, are kept alive by means of food. Withhold this, their energy fails, their movements cease, they die; but the artificial machine is to have a principle of nourishment within itself, or rather to need no external source of support or means of renewing its strength. This is to continue undiminished and at the same time be continually going out from it. Where the supply is to come from who can tell! An unlimited issue of power out of nothing! The projector is to impart an attribute higher than he himself possess to the work of his hands—to implant in it a principle unknown in nature—one beyond her power—for had she possessed it, economist as she is, some if not all of her machines had been moved by it. There is no living thing, nor anything else that can expend physical force without lessening its supply, and this soon used up when not replenished, no matter how large the original amount; hence it is in the consumption of food that Divine Wisdom has provided for the waste of muscular force, and Divine beneficence is not less obvious in making the using of it a source of gratification to all creatures.

Thus to grow, mature, decay, and finally be dissolved, is the fate of all God's moving mechanisms; but the energy of perpetual-motions is perfected at once. It is neither subject to growth nor decay—a feature unlike anything seen in Creation, and contrary to every law known in Creation.

Again, all natural machines require rest. Periodical cessation from labor is essential to their continuing to exist; but perpetual motions are to be freed from this infirmity also. They are to work with unabated vigor night and day for years, if not for ages—to have an inherent essence of activity within them that wants no sleep, and never feels hungry. To do this, their authors must also do more than the Creator has done.

But let us suppose a perpetual machine actually invented and put in operation. To keep it going, the power that moves it must either return or a supply come in from without. If the latter, the device is a cheat: it stands convicted of false pretences. If it have a fund or stock within itself, does it not follow that this must be diminished and weakened in proportion to the amounts taken from it; and in time be all used up? But if it be thought to circulate through the machine, to flow in as fast as it flows out, the query is how is this to be done? Can it be done? Suppose the machine worked a *saw* could we ever get out of shingles and boards the powe. expended in cutting them from their parent logs; or out of a pin, a needle, a cent, a button, or any other manufactured article the power consumed in fabricating it? Let any one try thus to cozen nature by evading the prime laws impressed on this orb and they will quickly find that power is like money—it can't be spent and kept too. When a machine gives out a portion, be it large or small, it has gone from it forever; it cannot be recalled; and a consideration of this should alone suffice to show the absurdity of pursuing the popular illusion. When a bucket or a bottle gives forth, after being once filled, wine or water *ad libitum*, a piece of mechanism may be made that once set in motion shall never stop. The cases are analogous; one is to keep pouring out liquid, the other power, and the equal mystery is where can either come from.

We say nothing about the wearing away of the materials, as that does not affect the proposition, as we understand it, viz: An instrument, apparatus or piece of mechanism, so constructed as to inclose within itself and keep in active exercise an occult principle of motion, and consequently of power, for motion is the effect of power. Temporary stoppage of the movements, from decay or derangement of parts, affects not the principle. If it exist at all, it does so independently of them, just as atmospheric pressure exists irrespective of pumps that excite it, or as magnetism exists without a magnet.

Whenever power can be found where it is not it can be increased indefinitely where it is. If any one member of the large perpetual-motion family could be persuaded out of its inborn stubbornness, if buoyancy for example, would comply, if a hollow drum and a few buckets of water could give out power, where would be its limits or end, while wood or metal and the ocean or lakes and rivers remained. Is it possible that projectors ever think of the consequences of success—of its effect on society and on the earth itself? We hear of jostling crowds in cities, collisions of street carriages, the rumblings and deafening noise of passing omnibusses and loaded drays that shatter the pavements and jar the strongest dwellings; how foot-passengers have to be on the *qui vive* to escape being knocked down, and how the listless, the aged and children are sometimes run *over*. But when wheels are made to turn themselves, such scenes will become universal; every street and turnpike road will be a Broadway or Cheapside, and fields and farm-yards alive with rattling, roaring, hissing, screeching automata. Endlessly diversified in dimensions, forms, structure, purposes and powers, they will be innumerable. The poorest man might