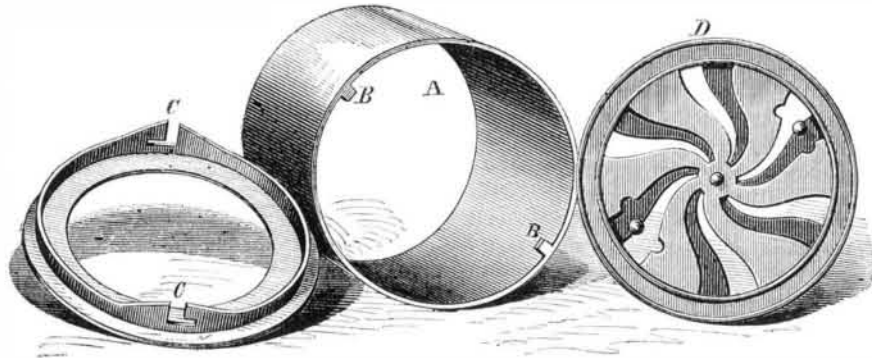


### Improvement in Thimbles and Ventilators for Funnel Flues.

Unightly tin plates or guards to cover funnel holes of unnecessary size in the chimney are not very pleasant adjuncts to the arrangements of the kitchen, dining, or sitting room. A perfect fit of the stove funnel to the thimble or sleeve makes a neat appearance, whether the thimble is of tile clay, or of sheet or cast iron.

The engraving represents a method of making a neat fit to any size of pipe. A is the thimble or sleeve to be seated in masonry of the chimney. It has snugs, B, which engage with recesses, C, on the flange that is one of a set intended to fit each size of pipe or funnel down to four inches. The register, D, is to take the place of the flange or collar in summer, when the stove and pipe are removed. It is secured in the same way as the collar, by means of a projecting circular flange fitting the interior of the sleeve, A, and the snugs and recesses as seen. This device can be attached or detached instantly, and it makes a neat, safe, and handy contrivance.

Patented, Nov. 3, 1868, by J. L. Little, who may be addressed for rights or for additional information at Atkinson, N. H.



LITTLE'S STOVE FUNNEL CAP AND VENTILATOR.

### PROGRESS OF THE VELOCIPEDE.

The interest in the velocipede continues unabated. A "Long Island rider" writes us a description of an improvement which strikes us as being novel at least. It is a device to enable velocipedestrians to use the ordinary horse-car tracks as a way for their machines. The attachment is a bar of iron or rather a rod about  $\frac{1}{2}$  of an inch in diameter with a small wheel at the end, remote from the velocipede proper, and having the other end attached to the "back-bone" of the machine. The small wheel bears on the opposite rail from the one in which the velocipede wheels run, and thus acts as a brace, and prevents running off the track. He says it has been tried with complete success; the machine being propelled with very little effort, and running up a grade with ease and rapidity. These attachments will soon be offered for sale.

The *Journal of the Telegraph* proposes that telegraph messengers be supplied with velocipedes for the more rapid delivery of messages. It says: "The messengers of a company perform a most important part of the telegraphic service. Their service demands a high degree of fidelity, sagacity, determination, beside the mere swiftness of foot necessary to perform their duty acceptably. But there is more practical skill and more persistent watchfulness needed to reduce the time which is even now expended between the reception of a message by the wire and its delivery into the hands of the party addressed, than in all the other parts of its progress. Anything which will reduce the time thus consumed, which will prevent the consumption of an hour or more to deliver a dispatch two miles from a central office which came a thousand miles over the wires in two minutes, must be hailed as an acquisition, and, if possible, made available.

"Well, 'we shall see what we shall see' by-and-by. We would like to see the experiment tried. Ponies were once tried in St. Louis, with what success we do not know. We want to see a good boy straddled across a velocipede and put on his honor and metal. We think there would be some quick time made."

An exhibition of a ladies' velocipede took place at Hanlon's Hall on Tenth St. on the evening of the 24th of March. It differs from the ordinary machine in having the perch lower, and in the arrangement of the spring, making it more convenient to mount and dismount. Instead of a saddle, there is a seat of wicker work neatly woven. The fore wheels are about thirty-two inches in diameter. Two of these machines were exhibited, ridden by two graceful young ladies, who drove the cranks with both feet, in the same manner as men. They were dressed in a very becoming costume of dark woolen stuff, their skirts being divided at the bottom, and buttoning around the ankles, not unlike the trowsers of a Zouave, and exposing the neatest foot and *Chaussure* that can be imagined. Their gloves were of the same hue as their dress; one wore ribbons and facings of blue and the other of pink.

They rode with much skill and elegance as well as strength, and, with the assistance of Mr. Pickering and Mr. Brady, went through with a number of intricate and pleasing figures, in the presence of a large number of ladies and gentlemen, who loudly testified their applause. We have no doubt that this velocipede will come into extensive use among the ladies, who will find it an attractive means of healthful exercise, in halls set apart for the purpose.

A Utica correspondent writes us as follows: "Your velocipedic readers may like to have a ready means of determining their speed. The following method is nearly accurate, not varying from the fact more than two feet two inches in a mile. Divide 336 by the diameter in inches of the driving wheel; the quotient will be the number of revolutions per minute, which will produce a speed of one mile an hour. 336/135245, will give the result more exactly, but 336 is near enough for all practical purposes.

"Thus with a 4-foot wheel, 7 revolutions a minute give a speed of a mile an hour, 70, of ten miles an hour."

A correspondent of Toronto who subscribes himself "Unfortunate" makes some good suggestions. He says:

"I have been watching the velocipede notes in your valuable Journal for some time past in the hope of learning that one of these marvelous machines had been invented especially adapted for the infirm and crippled portion of the community, but up to the present time of writing I have discovered nothing suitable. The late war has caused the loss of many a leg and in this age of machinery, the number of maimed persons is increasing. To lighten the lot of this unfortunate class is surely worthy of some thought; many of your ingenious contributors will I am sure, be glad to turn their attention to it,

from motives of humanity and not profit. The loss of a leg, replaced by never so shapely an artificial one, incapacitates a man from almost every employment by reason of the difficulty he experiences in moving about. I am aware that there is at present a machine with a crank in the axle used by persons whose pedal extremities have become paralyzed but the effort required for propulsion is very great. I would suggest the construction of a velocipede that could be worked jointly by one foot and one hand or by the hands alone, or the motion might be taken from the shoulder perpendicularly with advantage, the one foot being used for steering. I am not a mechanic and merely throw this out as a hint to any good Samaritan who will take the matter up.

We give herewith an engraving of a two-seated bicycle which will interest our readers. This machine, designed by H. P. Butler, of Cambridge, Mass., seems entirely practicable. The engraving shows the parts so clearly that a detailed description is unnecessary. We may add, however, that the back



seat is intended to be used either as a side saddle for ladies, as shown in the engraving, or an ordinary saddle for gentlemen, both riders assisting in the propulsion. The inventor also has in view the placing of two side saddles over the rear wheel, to accommodate two ladies, who could then assist in propelling the machine.

Several leading firms in Newark, N. J., heretofore engaged exclusively in the manufacture of elegant carriages, have begun the manufacture of velocipedes for New York firms, while other establishments are rapidly turning off the wheels and iron works to supply the trade in other cities.

An inventor in New Albany, Ind., is making a new locomotive apparatus. It consists of a pair of skates on the bicycle order, the wheels being five inches in diameter and three-fourths of an inch wide, fastened to wood, which are to be strapped to the feet. The wheels are made large and broad, in order that the wearer may have no difficulty in passing over rough pavements at a rapid rate.

We understand that the prices are gradually coming down at the halls of instruction, the result of the competition that has arisen. As a counter influence, however, upon the rates demanded, the increasing number of those desiring instruction still enables the proprietors of these places to make large profits.

### Remarkable Millstone Explosion.

A correspondent from Leesburg, Mississippi, writes us an account of a remarkable explosion which occurred, March 2d, in an adjoining county under somewhat mysterious circumstances.

The millstone was a patent French burr of about 30 inches diameter, considerably worn, having been run for years. The burrs were encased in cast-iron beds and were driven by steam power. The mill had not been in operation more than

ten minutes before the fatal accident occurred. The miller was regulating the mill, and finding that it was running too slow, he ordered the engineer to give it more speed; but before the order was complied with, the explosion took place with terrible effect, scattering the fragments of stone in every direction, killing the miller instantly, and wounding five other hands employed about the mill. The report of the explosion was heard at a distance of four miles.

We are requested to give our opinion of the cause of this explosion, which can be accounted for in no other way than either the accidental or malicious introduction of some explosive compound into the grain, which was exploded by the friction of the stones. The loud explosion points clearly to this conclusion, and as it is by no means probable that anything of the kind could have been the result of accident, an effort ought to be made to discover whether or not it was the work of some malicious fiend, in human shape, instigated by motives of revenge, or otherwise.

### OBITUARY--LUTHER ATWOOD.

Among the scientific men of this country, and in connection with some of our most important discoveries in the department of natural wealth, the name which heads this article deserves to be perpetuated. The history of the manufacture of coal oils could hardly be written without frequent reference to the labors and inventions of Luther Atwood; and, indeed, in the manipulation of the hydro-carbons, there is no one who has performed such signal service, both to science and the arts, as he.

Luther Atwood was born at Bristol, N. H., November 7, 1826, and remained in his native town until 1849. He received only such education as could be gained at the town school and a neighboring academy; but, having evident predilections for the acquirement of knowledge, commenced the study of medicine with Dr. Sawyer, of Bristol, when quite a lad. He, however, soon found that the bent of his desires and capacity was in another direction, and accordingly abandoned medicine for chemistry, to which science he devoted his entire life. He was a natural chemist; and component parts, under his manipulation, seemed to assume their proper correlation, almost by magic. His studies were now prosecuted under great difficulties, and in the face of many obstacles, and in 1849 he removed to Boston to avail himself of the advantages of a wider sphere.

There Mr. Atwood entered upon the manufacture of medicinal chemicals for Messrs. Philbrick & Trafton. The following year he commenced the series of original labors to which his life was to be devoted, by instituting some investigations into the nature of the products of coal tar, as well as the manufacture of benzole and naphtha therefrom. In 1853 Mr. Atwood obtained his first patent, being for a "process of preparing para-naphthaline oil from the distillate of coal tar, collecting the products at certain fixed temperatures;" the product being designated as "coup oil." At about the same time he obtained a patent for the use of manganate of potash for purifying alcohol, the alcohol purified by this process, being known in trade as "Atwood alcohol."

During the following year Mr. Atwood, associated with his brother, William Atwood, now superintendent of the Portland Kerosene Oil Company, and president of the Atwood Lead Company, of the same city, commenced experiments in the manufacture of oil from coal and bituminous products, and these investigations he pursued until his failing health incapacitated him from all mental labor. During the ten years between 1853 and 1864, Mr. Atwood took out no less than thirteen patents, nearly all of which related to distillation, and the manipulation of hydro-carbons. One of his most important discoveries was the process known as "cracking," by which a heavy oil is changed to a lighter grade. Another was the process of distilling coal in a tower, known as the "meerschbaum" or "pipe" process. Indeed, the high standard of purity which has been reached by the oils, known under the trade mark of "kerosene," is owing in a very large degree to the original, scientific far-sightedness, and laborious efforts of Luther Atwood. Mr. Atwood was at one time superintendent of the New York Kerosene Oil Company's works at Hunter's Point, and within a few years of his death occupied a similar position in the works at Maysville, Ky. He died of consumption, at Cape Elizabeth, Me., November 5, 1868, after a lingering illness.

A SUCCESSFUL INVENTOR.—Nothing in the line of our professional duties gives us more pleasure than to hear of the success of inventors, and under this head publish the following from John W. Case, of Worthington, Ohio:

From the patent you took out for me one year ago this March, I have realized about \$10,000, and all of this I owe to the *SCIENTIFIC AMERICAN*. I have always been of an inventive turn of mind, and have originated a great many things, but have always neglected to patent them, owing to the cost and the necessary neglect of my other business, but on subscribing for your paper, I was induced by reading it to apply for a patent. Therefore I am truly indebted to the *SCIENTIFIC AMERICAN* for my success during the past year.

A PROLIFIC INVENTOR FROM TEXAS.—Mr. F. C. Richers, of Gilmer, Upsher county, Texas, arrived at the office of this paper a few days ago, with no less than sixty-two new inventions, on which he is making applications for letters patent. His subjects are quite varied, comprising improvements in nearly every department of mechanical and chemical science, from a steam engine and coffee mill to a process for roofing material, and mode of extracting saccharine juices from cane. All of the inventions exhibit a large degree of ingenuity, and many of them possess very much merit. Mr. Richers will remain in this city several weeks, and parties desirous of engaging in the manufacture or sale of good patented articles, can address him at Box 773 P. O., N. Y.