

Improved Machine for Borings and Mortising Blind Stiles.

This machine, as illustrated in the accompanying engraving, embraces all the features of the machine for which a patent was granted to Leonard Worcester, July 5, 1859, together with several other valuable improvements for which a patent is now pending, and which, it is claimed, render it the most efficient machine for the kind of work it is designed to execute on all kinds of stock now manufactured.

Machines have been made for some time that would mortise soft lumber free of knots and shakes, but none before this have had the necessary combination for both boring for revolving slats, or mortising for fixed slats, in all kinds of stock, hard or soft, clean stock or knotty and shaky timber, and for leaving the mortises free from chips ready for the insertion of the slats.

This machine is entirely automatic in its operations, either boring round holes for the pivots of revolving slats, or mortising the recesses for the ends of fixed slats. In cutting these recesses it can be adjusted to make them at any required angle. The cutting of the recesses is done by means of a reciprocating or traversing burr or bit, which, we have already said, can be used in any obstinate description of wood, where ordinary machine chisels fail. It will also make the mortises any length from a round hole up to two and one half inches, and of any width or depth required in a window blind.

All the operator has to do is to put in the stiles and set the machine in motion, when it does its work, and, having done it, stops. It does the work on both stiles at once at the rate of sixty mortises per minute. One man, the inventor asserts, can set out and mortise from 125 to 150 pairs of blinds per day with one machine.

The bit or burr is a very simple device, not liable to be broken and easily kept sharp. It costs only ten cents.

The machine is very simple in construction and is made wholly of iron and steel. It is thoroughly built and easily set up and put in operation, and is not liable to get out of order. Not more than one half a horse power is required to run it.

It is peculiarly adapted to the work on car blinds, where the mortises are less than one eighth inch in width, and, consequently, difficult to make with chisels of ordinary construction. Agents for its introduction throughout the United States are wanted. For further particulars address Martin Buck, agent, Lebanon, N. H.

Improved Cork Extractor.

Our engraving shows a simple and powerful implement for extracting corks from bottles, patented Jan. 14, 1868, by James Morton, of Philadelphia. It consists of three bars pivoted together, which, together with the corkscrew, constitute the entire apparatus. One of the bars has a socket or cap at its lower end, which is placed on and around the nose of the bottle. Near the upper end of this first post or bar is pivoted the end of the second bar, near the middle of which the third bar is pivoted. The second and third bars have handles at their outer ends, and at the inner end of the third bar is a hook.

This hook engages with the corkscrew in the manner delineated in the engraving, and by forcing the handles together or pressing them downward, the cork can be easily extracted. The instrument is equally adapted to extracting corks on which rings or hooks are already formed so that no corkscrew is needed.

For further particulars address James Morton, 912 South Eighth street, Philadelphia, Pa.

A Deserved Testimonial.

A few days since Moses G. Farmer, Esq., of Salem, Mass., was presented with a sardius, or red carnelian intaglio, of Sir Isaac Newton, estimated to be about 200 years old, by S. W. Dewey, of this city, in consideration of his electrical investigations and inventions. This latter gentleman, in presenting it, stated that since being its proprietor he had often thought he would present it to Professor Morse, in token of the great good he had conferred upon the human family by his telegraph inventions, but lately he had become convinced that Mr. Farmer, the inventor of the fire-alarm telegraph and the American compound telegraph wire, was eminently deserving of it. Mr. Dewey received the intaglio from a Mr. Bishop, late of New York, who received it from his father, who was a diamond setter to the sovereigns of England, France, Spain, and Portugal, and the records held by him of the jewels he had in his possession were such as to leave no doubt as to the antiquity of the gift and the probability that it was taken from life.—*Boston Traveler*.

Professor Tyndall.

The following agreeable personal sketch of Prof. Tyndall,

by a correspondent of the New York *Tribune*, will be perused with interest by our readers who have so often seen his name in these pages:

"One of the most agreeable features of my brief visit in London was the acquaintance, which, through the kindness of friends at home, I was enabled to make with several eminent scientific men whose names are cherished with equal honor on both sides of the Atlantic. Soon after my arrival I called on Prof. Tyndall at his rooms in the Royal Institution, a learned society, which, from the commencement of the present century, has exerted a marked influence on the devel-

and betrays a versatility of aptitude, and a reach of cultivation, which are rarely found in union with conspicuous eminence in purely scientific pursuits. In his own special domain, his reputation is fixed. His expositions of the theory of heat and light and sound, and of some of the more interesting Alpine phenomena, are acknowledged to be master pieces of popular statement, to which few parallels can be found in the records of modern science. But in addition to this he possesses a rare power of eloquence, and manifold attainments in different departments of learning. I do not know that he has ever written poetry, but he is certainly a poet in the fire of his imagination, and in his love for all the forms of natural beauty. Nor has he disdained to make himself familiar with the leading metaphysical theories of the past age, in spite of the disrepute and comparative obscurity into which that science has been thrown by the brilliant achievements of physical research. I noticed with pleasure in his conversation his allusions to Fichte, Goethe, R. W. Emerson, Henry Heine, and other superior lights of the literary world, showing an appreciation of their writings, which could only have been the fruit of familiar personal studies. Besides the impression produced on a stranger by his genius and learning, I may be permitted to say, that I have met with few men of more attractive manners. His mental activity gives an air of intensity to his expression, though without a trace of vehemence, or an eager passion for utterance. In his movements he is singularly alert, gliding through the streets with the rapidity and noiselessness of an arrow, paying little attention to external objects, and if you are his companion, requiring on your part, a nimble step and a watchful eye not to lose sight of him.

"Though overflowing with thought, which streams from his brain, as from a capacious reservoir, while his words 'trip around as airy servitors,' he is one of the best of listeners, never assuming an undue share of the talk, and lending an attentive and patient ear to the common currency of conversation, without demanding of men the language of the gods. The singular kindness of his bearing, I am sure, must proceed from a kind and generous heart. With no pretense of sympathy, and no uncalled-for demonstrations of interest, his name will certainly be set down by the recording angel, as 'one who loves his fellow-men.'"

PROF. HORSFORD'S METHOD FOR MAKING BREAD.

In a recent letter from one of our correspondents, it was asserted that Prof. A. J. Bellows had charged that the preparation for raising bread, patented by Prof. Horsford, was poisonous in its nature, that it was simply phosphorus disorganized, whatever that may mean, and as such, as dangerous as any other poison, etc., etc.

To this statement, which we published without comment we say that after taking time to consider the possibility of the occurrence of free phosphorus during any stage of the process from the bones to the bread, we see no room for admitting any such possibility on chemical grounds.

Second, we have eaten of bread, pastry, etc., prepared by this method, for months and do not find ourselves poisoned so far as we are able to discern.

Third, the testimony of many eminent chemists, among whom Liebig stands first as undoubted authority on a question of this kind, not only declares it harmless, but beneficial to health. And we have no hesitation in saying that all statements to the contrary have no scientific or practical foundation, and they could not be made by a scientific chemist, who, in addition to learning, possessed that other essential of reliable judgment—candor.

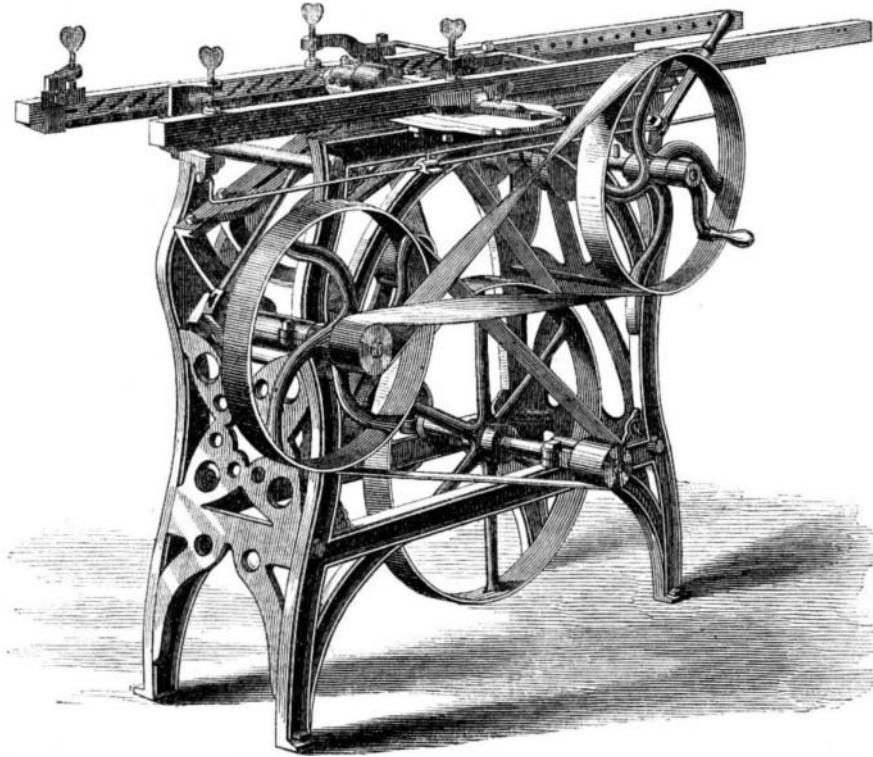
Do Animals Think?

We have been asked to give our opinion upon this subject which has been recently debated in Tennessee. There has been no doubt in the minds of many eminent thinkers and observers that animals think and reason. We fully coincide in this belief, and think that a careful examination of their habits and acts will convince any candid observer that they are not wholly, although doubtless to a great extent, governed

by instinct. Those to whom our columns are familiar will recollect a number of articles containing facts which go to prove the reasoning power of animals.

THE Board of Trade of St. Louis has appointed a committee of twelve to raise by subscription \$120,000 to build an iron sea-going propeller to inaugurate direct trade between St. Louis and foreign ports. The vessel will be of 1,000 tons capacity, and will not draw over six feet when light.

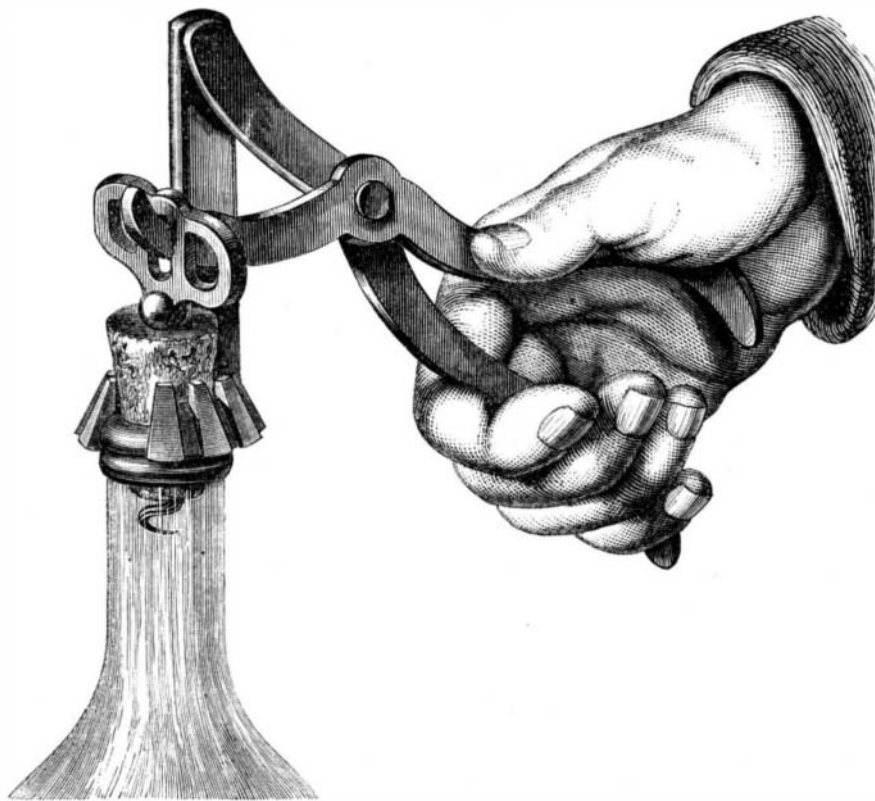
It is stated that one hour after the gas of London is lighted the air is deoxidized as much as if 500,000 people had been added to the population.



BLIND STILE BORING AND MORTISING MACHINE.

opment and popular diffusion of scientific knowledge in England. Its history is illustrated by some of the most important discoveries of the age in the natural sciences, including the labors of Count Rumford, Sir Humphry Davy, Faraday, and Prof. Tyndall himself, whose enthusiastic, poetical temperament and remarkable gifts of expression, combined with the habit of rigid scientific analysis, have contributed largely to create and gratify the taste for popular science, which prevails among a very considerable portion of the cultivated classes in English society.

"Prof. Tyndall has all the ardor of a reformer, without any tendency to vague and rash speculations. Recognizing what-



MORTON'S DOUBLE-LEVER CORK EXTRACTOR.

ever is valuable in the researches of a former age, he extends a gracious hospitality to new suggestions. With a noble pride in his favorite branches of inquiry, he is not restricted to an exclusive range of research, but extends his intellectual vision over a wide field of observation. The English, as a rule, are inclined to be suspicious of a man who ventures beyond a special walk in the pursuit of knowledge. They have but little sympathy with the catholic taste which embraces a variety of objects, and is equally at home in the researches of science, the speculations of philosophy, the delights of poetry, and the graces of elegant literature. But a signal exception to this trait is presented by Prof. Tyndall. His mind is singularly comprehensive in its tendencies,