SCIENTIFIC MUSEUM.

For the Scientific American.

Horse-Shoeing---Interfering Horses.

One writer in the Scientific American recommends raising the shoe upon the inside, and another the reverse; which is correct? I answer—both; and I also say both are in error. The lateral motion of the fetterlock joint is small, and the effort to throw the ancle out by the method recommended by Mr. Jewett usually produces inflammation of the cartilages and ligaments of the joint, and many times destroys the socket by absorption of the heads of the bone, leaving the ancle permanently enlarged, and ruining the horse for road or market. The paring off the hoof from the inside will have the same effect, if it is carried to an extent, to put the shoe farther under the foot than it ought to be.

Many horses in ill condition will interfere in spite of all remedies, when jaded or allowed to shack upon the road. The best remedies are the good condition of the horse—skillful shoeing, *i. e.*, neither inclining one way nor the other, but made to resemble the fair hoof of the horse as near as may be, being as light as possible. And instead of shoeing so as to have the shoe standing like a three-legged stool, allow all the shoe to touch the ground, by having a flange turned upon the whole outer edge of the shoe. The best horse-shoe ever brought into use, is one recently invented by Mr. Wm. A. Sweet, of Pompey, N. Y.; it is made of good spring steel, smooth inside, with a flange turned on the outer edge; it will soon come into general use. In applying the shoe to cure the interfering foot, the clinches should be kept close, and the nails set well into the groove; the improved shoe protects the nails by its flange. The unnatural shoeing will accomplish all that can be expected, in a few days, but the result of such practice is too often injurious to admit of its general use. Your last correspondent requires no reply. S. A.

Syracuse, N. Y.

Machinery Manufactured in Alabama.—The establishment of the Montgomery manufacturing Co., says the "Advertiser," under the control and management of Messrs. Gindrat & Co., is now not only the largest of the kind in the South, but is turning out machinery, the style, beauty of finish, and strength of which, are second to none.

In taking a stroll through their extensive shops a few days since, we were shown by Mr. J. S. Winter, (one of the proprietors of the establishment) an engine, the appearance of which we will not attempt to describe—but merely affirm that it was—although yet unfinished, the handsomest piece of machinery we ever saw. We never knew before that iron could be brought to so fine a polish. It will well pay any one for the trouble to go and examine it. The engine, which is of thirty horse power, is to be sent to the Fair in Georgia. It is appropiately named the "Alpha," and if we mistake not, will receive the first premium.

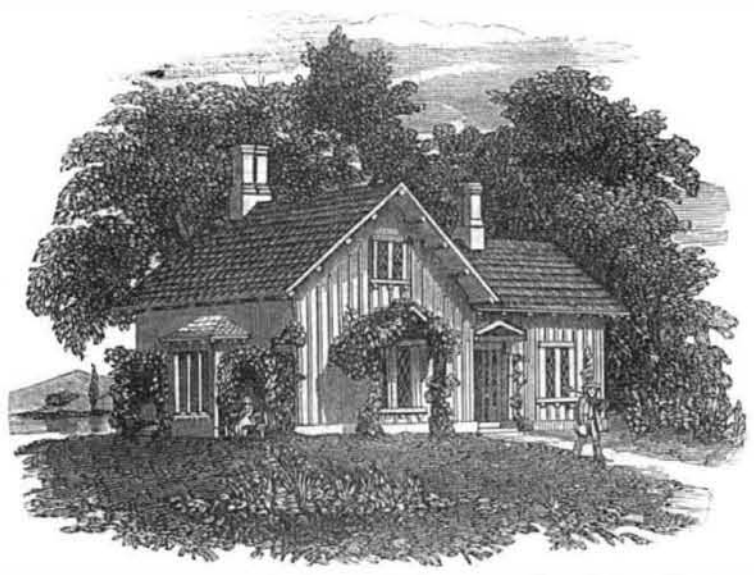
This establishment commenced the construction of steam engines about 18 months since, and have turned out over eighty since that time. Such establishments as this among us do away with the necessity of sending to Northern markets for machinery.

Poison of the Toad.—It is an ancient and still common opinion that the toad possesses a subtle venom, but at present this is deemed fabulous by the scientific. MM. Gratiolet and Cloez, as appears by the reports of the Academy of Sciences, have shown by experiment that they secrete a deadly poison. They inocculated small birds with the milky fluid contained in the dorsal and parotid pustules of this animal, and found that they died at the end of five or six minutes. Even when dried the fluid destroyed birds. Death occurred without convulsions, and all exhibited marked signs of apoplexy.

Three-Decked Man-of-War Steamers.—An interesting experiment is in preparation at the seaport of Toulon. The French Government has ordered an engine of 400 horse power to be put into the man-of-war Napoleon, of one hundred guns. It is calculated that this machine will propel the vessel at the speed of eight miles an hour. The attempt is looked upon with considerable interest in France and England. If successful it will be imitated in other ships.

Diving Vessels.—Mr. Cave, the owner and manager of one of the first iron workshops in Paris, is now buiding two large boats to be used under water in the work of clearing away the bar at the mouth of the Nile. They are on the new plan, and better than anything of the kind we have heard of. In the middle of the deck is a large circular hole, going vertically through the ship, and in slides a cylinder reaching to the bottom of the river, which may be shortened or enlarged at will, like a telescope. Above the opening is a large air chamber 22 feet in diameter and 16 feet high. By forcing compressed air into the air chamber the water in the tube is driven out at the lower end, leaving dry a portion of the bed. An apparatus of the same kind, but on a reduced scale, is now in operation on the river Seine.

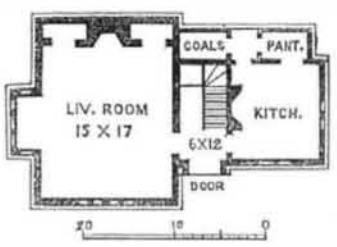
A CHEAP COTTAGE.---Fig. 1.



The accompanying engravings illustrate A Small Bracketted Cottage, taken from "Downing's Cottage Houses." Figure 1 is a perspective view, and figure 2 a plan view. It is designed with a regard to cheapness, and commends itself to many of our mechanics who would prefer to live in their own dwellings, as their own landlords, "happy and free."

The plan of the first floor of this cottage shows an entry, six by twelve feet, containing a flight of stairs to the chamber floor, under which are stairs to the cellar. On the left is the living-room of the family, fifteen by seventeen feet. The deep chimney-breast at the end of the room gives space for two large

Fig. 2.



closets. The bay-window measures six feet in the opening (in the clear), and is three feet deep.

On the right of the entry is the kitchen, a small room, ten by twelve feet. As the living room of the family will, in a great measure, be also the kitchen, this small kitchen will, in fact, be used as a back kitchen for the rough-work, washing, etc., so that in summer, and indeed at any time, the living-room can be made to have the comfortable aspect of a cottage parlor, by confining the rough work to the kitchen proper. Back of this kitchen is a small lean-to addition, containing a small pantry, four by six feet, and a place for coal. There is a small passage between this closet or pantry and the coal-hole, and opposite the door opening from the kitchen into this passage, is a door which serves as a back door to enter the kitchen without going in the front entrance. Planed-and-matched or rough boards may be used for the vertical weather-boarding; we should prefer to have them rough (if the cottage is filled in), and painted and sanded. In this we include a cellar under the kitchen and entry, but not under the living-room. The foundation walls of the latter should be laid three and a half feet below the level of the ground.

It is estimated that a cottage of this description, withing six miles of New York City, could be built for $600, but it could be built for $100 less in the country where lumber is cheap. At the present moment "lumber is lumber," as the old saying is; it is therefore no small expense to build houses at present. It is our opinion that cast-iron must supersede, in a great measure, the wooden houses now built, not only as a more desirable but a cheaper material.

Improved Candles.

Cist's Cincinnati Advertiser thus mentions a new species of candle recently produced in that city: "it is calculated to supersede all other kinds in use, by its beauty, freedom from guttering, hardness, and capacity of giving light, in all which respects it is superior to every other species of candle. This candle is nearly translucent, and can be made to exhibit the wick, when the candle is held up between the eye and the light, while the surface is as glossy as polished wax or varnish.

When I state that the principal ingredient is our great staple, lard, the value of this manufacture can hardly be exaggerated, and when I say explicitly that, taking durability into account, it can be made as cheap as any other candle, and that there exists no single element of comfort, convenience, profit and economy in which this article has not the advantage of sperm, star, wax, or tallow candles, it will be readily conceded that the days of all other portable or table light, including lard oil, are numbered. In fact, except where intense light, as in public buildings, is an object, gas itself cannot compete with it for public favor. I am not at liberty, in this stage of the enterprise, to be more explicit, but shall shortly publish further details. What I have already stated rests upon my personal knowledge and observation, and the statements of judgment and veracity."

[We hope the above is correct in every particular, for the candles now sold in our city for "good tallow," are miserable in the extreme; they melt away with a lard-like softness very fatal to the pockets of purchasers. The common sperm candles sold in our stores exhibit qualities of a near relationship to the lard tallow candle.

Steven's Siding and Flooring Machine.

We have heard so many favorable reports concerning the operation of this wonderful invention, that we concluded to witness its performance, which we did to our astonished satisfaction, on yesterday afternoon. It is a sawing machine, and was invented for the purpose of sawing out lumber for flooring and siding uses, which, by the way, it does with a most surprising dispatch and in a most superior manner. This machine runs thirty-two saws, and is capable of sawing as many boards, ten or twelve feet in length, in three minutes. It promises to meet with a most welcome adoption, wherever sawing and building is necessary. We understand that Mr. Stevens intends takiug one of his invaluable patents to the *Pinery*. It will be a profitable machine in that section of the country. He is going to increase the number of saws to seventy-five. We advise all who take an interest in a truly valuable invention, to give this machine a visit. Mr. Stevens will be pleased to gratify those who desire to witness its operation, if they will call at the United States Foundry, in the southern part of the city.—[St. Louis Reville.

[There may be some good improvement about this machine, not described, but if the invention consists merely in working gang-saws it is not new, for gang saws were employed in our country before the Revolution. We have never known so large a gang used as that by Mr. Stevens, but the larger the gang, the greater the power required to work them.

LITERARY NOTICES.

The Mind and the Heart.—Messrs. Adriance, Sherman & Co., No. 2 Astor House, have just issued a neat volume of 72 pages of poems, by Franklin W. Fisk, when in his eighteenth year. They would be no discredit to an older head—several of them are full of touching pathos.

Sketches and Statistics of Cincinnati in 1851: Wm. H. Moore & Co., publishers, 118 Main street, Cincinnati, pp. 363. We are indebted to Charles Cist, Esq., the author, and compiler, for a copy of this publication. It is arranged under 15 classifications, viz., Physical characteristics, Personal Statistics, Education, Science, and Literature, the Fine Arts, Monetary, Public Institutions, Manufactures, and Industrial Products, Transportation, Commerce, etc., together with miscellaneous information, the biography of eminent residents, and splendidly embellished with their portraits, executed in excellent style, besides views of some of the most prominent public buildings. Mr. Cist has done himself much credit in the production of this work, and we hope a discerning public will reward his efforts. In looking cursorily through this volume, and examining some of the statistics embraced in it, we are struck with the enterprize and greatness of Cincinnati.

Harper's Magazine for November contains a continuation of Mr. Abbott's illustrated series of the Life of Napoleon; it is rich in gems of literature. The present number closes the volume. Harper & Bros., New York.

The International, for November, Stringer & Townsend, is a beautiful number, well embellished, and ably supplied with the choicest reading.

Practical Model Calculator.—No. 3 of this work, edited by Oliver Byrne, and published by Henry Carey Baird, of Philadelphia, has just been received. It contains articles on Cuttings and Embankments, Calculations on the Steam Engine, &c.

Magazines for November.—We are indebted to Messrs. Dewitt & Davenport, for Graham's and Sartain's Magazines. They are both excellent numbers.

We have received from Hon. Wm. H. Seward a pamphlet copy of his able argument in the Conspirator's Trial, at Detroit. It is neatly gotten up by Messrs. Derby & Miller, Auburn, N. Y.

TO MECHANICS, INVENTORS, AND MANUFACTURERS.

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