

Scientific American.

A WEEKLY JOURNAL OF PRACTICAL INFORMATION IN ART, SCIENCE, MECHANICS, CHEMISTRY AND MANUFACTURES.

Vol. XI.—No. 26.
(NEW SERIES.)

NEW YORK, DECEMBER 24, 1864.

{ \$3 PER ANNUM
(IN ADVANCE.)

Lathe Attachment for Centering and Squaring.

The importance of well-prepared centers for a successful lathe job has been noticed in previous numbers of the SCIENTIFIC AMERICAN. We here illustrate a simple device for this purpose, which is used and highly recommended by some of our best mechanics. Ordinarily, several manipulations are required before shafts or studs are ready for turning. This machine, by one movement, centers, drills, countersinks and faces the work in the time required by the old method for each of those operations. The work is done accurately, and the machine can be managed by a boy or common workman. It adjusts itself to any size, without any alteration; is equally adapted to round, square or flat bars; cuts them to a uniform length, if required, with or without centers, and mills the ends for screws. It can be applied to any engine or drilling lathe, and attached or detached as readily as the foot-stock. The advantages claimed by its inventor are: simplicity and durability of construction, ease of management, saving in time, labor and power, and that work otherwise disagreeable is made pleasant.

Fig. 1 gives a perspective view of the attachment, showing the sliding jaws, N O, for holding the work firmly and centrally to the drill and cutters, by means

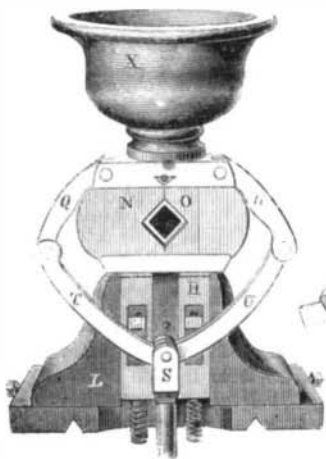
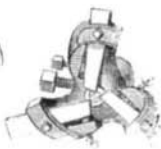


Fig. 1

Fig. 2



NEWELL'S LATHE ATTACHMENT FOR CENTERING AND SQUARING.

of the levers, R T, connected by the rod, S, to a treadle beneath the lathe, operated by the foot. The part, H, is adjusted perpendicularly, and the chocks, L, horizontally, by set screws.

Fig. 2 shows the cutter and drill-holder, which is attached to the rotating spindle.

Fig. 3 is a fac simile of the attachment at work, as placed on a drilling lathe. For some time past one of them has been doing all the centering and squaring in the extensive machine works of Messrs. P. Whitin & Son, Whitinsville, Mass.

The operation will be readily understood by mechanics. The parts, X, are convenient arrangements for applying and saving oil.

For machines, State rights, the entire right, or further information, address the patentee, N. F. Newell, Whitinsville, Worcester Co., Mass., care of P. Whitin & Sons. Date of patent Jan. 29, 1861. See advertisement in next issue.

THE ironclads in the James river have been provided with a large sized locomotive lantern, which is placed on the bow. Its rays thrown ahead on the water enable the men to see if the rebels send down infernal machines, or make any attempt to board them.

Reclamation.

In a recent number of the SCIENTIFIC AMERICAN it was stated that Prof. Tyndall, in a late lecture before the Royal Institution, had attributed to Mr. Joule the discovery of the disturbance of molecular forces by magnetism, when, in fact, the discovery was made and published in *Silliman's Journal*, by Prof. Chas. G. Page, of Washington, several years before the experiments of Mr. Joule. Turning to Prof. Tyndall's hook of lectures on "Heat as a mode of mo-

brushes, buttons, sewing cotton, pocket knives, steel pens, postage stamps, pipes, sirups, larl, bologna sausage, pepper, pants, socks, shoes, looking-glasses, combs, tape, pins and needles, paper, lead pencils, tobacco, snuff, family soap, smoked beef, corn meal, mustard, vests, hats, handkerchiefs, towels, clothes, brooms, thread, scissors, envelopes, pen knives, cigars, crushed sugar, butter, beef tongues, nutmegs, table salt, salt fish, pickles, dried fruit, apples, crockery, crackers, sauces, lemons, matches, glass

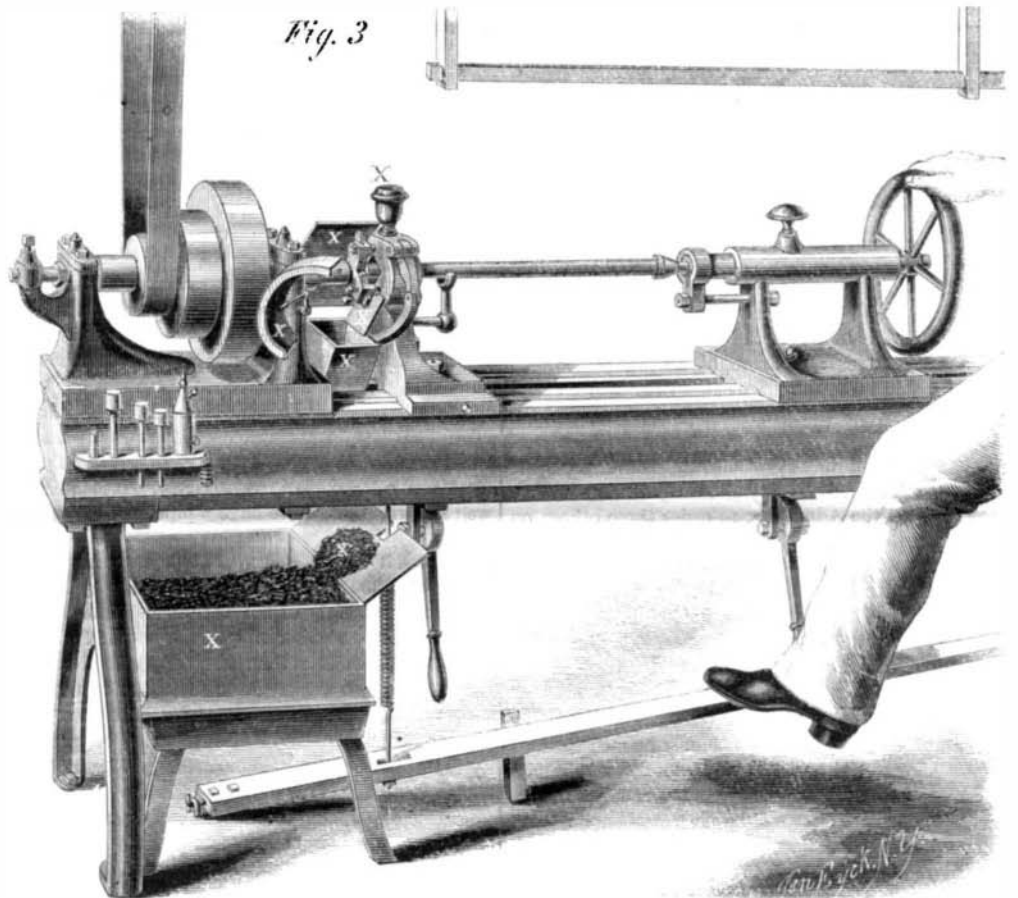


Fig. 3

tion," page 117, we find him chargeable with another anachronism, more decidedly erroneous, in the record of scientific discoveries. The discovery of the vibration of "Trevelyan's bars," by Galvanism, and also the continuous rolling of metallic cylinders upon rails by the same agency, is ascribed by Prof. Tyndall to George Gore, Esq. Mr. Gore first made his experiments before the Royal Society, June 3d, 1858, and published the same in the *Philosophical Magazine* for June, 1858. More than eight years before, this same discovery was announced by Prof. Page in *Silliman's Journal* for January, 1850, together with illustrations of some interesting applications in the way of the *physique amusante* growing out of this discovery.

What may be sent to Prisoners of War by their Friends.

The United States will forward to its prisoners of war in the South the following articles:—Uniform hats, uniform caps, uniform coats, uniform jackets, flannel shirts, drawers, booties, stockings, blankets (woolen), blankets (gum), commissary stores. The friends of the United States prisoners of war confined in the South are permitted to forward to them, by flag truce boat or other authorized channel, the following articles:—Coats, underclothes, caps, suspenders,

ware, cheese, vegetables, nuts, yeast, powder, tin-ware, meats and fish in cans.

All articles for prisoners of war will be forwarded to Col. John E. Mulford, agent for exchange of prisoners of war at Fortress Monroe, Va.

By order of the SECRETARY OF WAR.
E. D. TOWNSEND, Assistant Adjutant General.

NOTICE TO SUBSCRIBERS.

Hereafter, until further notice, the price of the SCIENTIFIC AMERICAN will be as follows:—When sent by mail, \$3 per annum; \$1 50 for six months; \$1 for four months. When delivered in the city by carriers, \$4 per annum. Single copies at the publication office and at periodical stores, 8 cents each. The postage on the paper by mail is 20 cents a year, payable quarterly in advance at the post office where received.

SCENTED SMOKING TOBACCO.—Cascarilla bark imparts a pleasant odor to tobacco. The scent is like musk, and is to be preferred to the rank and bitter fumes of common tobacco. With cascarilla bark in it a pipe may be smoked in any apartment without offense. A piece as big as a pea is enough to put in one pipe full, but manufacturers grind the bark and mix it with the tobacco.