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Notes and Queries on Gas Lighting.

In the number for September 20th, of that exceedingly interesting and peculiar London periodical, *Notes and Queries*, there is a letter from a correspondent, "T. H. W.," of Richmond, Va., correcting Thos. Peckston, in his treatise on Gas Lighting; also Saml. Hughes, in his treatise on Gas Works, especially the latter, who has attributed to Dr. Watson, Bishop of Landaff, the discovery that coal gas retained its inflammability after passing through water. Peckston attributes to Rev. Dr. John Clayton the discovery of a permanently inflammable gas from pit coal, about 1691, but says nothing about his discovery of its inflammable property after passing through water; while Hughes, in his treatise, published in London in 1853, says, "To the celebrated Dr. Watson, we are indebted for the first notice of the important fact, that coal gas retains its inflammability after passing through water."

The Virginia correspondent of *Notes and Queries* states that Dr. Clayton had made a voyage to Virginia, and in a letter to the Royal Society, May 12th, 1688. after describing some severe thunder storms which he had witnessed in the Colonies, he says, "Durst I offer my weak reasons, I should here consider the nature of thunder, and compare it with some sulphurous spirits which I have drawn from coals, and that I could in no way condense, yet were inflammable, nay, *would burn after they passed through water*, and that, seemingly, fiercer. I have kept this spirit a considerable time in bladders, and yet if I let it forth and fired it with a match or candle, it would continue burning till all was spent."

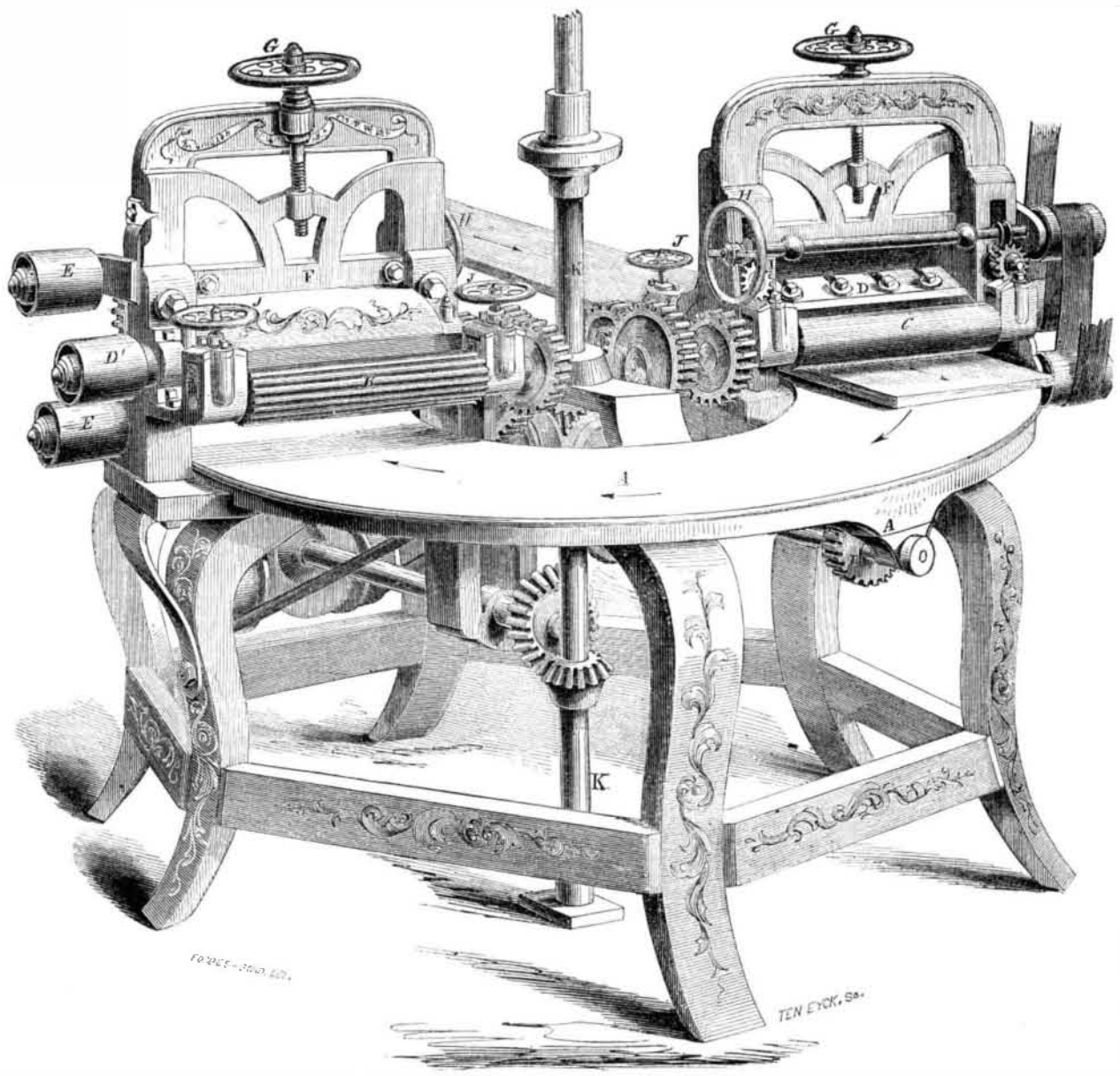
We are glad that an American correspondent corrected Mr. Hughes respecting who was the real author of this scientific discovery, and we understand that he has written to Richmond, thanking T. H. W. for the correction, and that he will make it in his next edition, giving Dr. Clayton full credit.

We have to remark that we are surprised Mr. Hughes should have given Bishop Watson any credit for such a discovery in a work published in 1853; while Parnell, in his work on gas illumination, published in London at least sixteen years ago, gives Dr. Clayton the full credit, and quotes the extract of his letter given above, from Virginia, on its first page. Mr. Hughes should have been better read in the history of gas lighting before he attempted to write upon it.

The Largest Flouring Mills in the World.

The Richmond (Va.) *Enquirer* says:—"We notice that the extensive addition which is now in course of erection, by Messrs. Warwick & Barksdale, to their already mammoth flouring mills in this city, is progressing finely. The foundation of this new edifice is stone, sixteen feet thick; the brick wall averages five feet in thickness from the foundation. The length of the building is one hundred and ninety feet, its breadth ninety-five feet. When completed it will be eleven stories high. The cost of the addition, with machinery, and everything necessary to its operation, will not fall far short of $200,000. These mills will constitute, collectively, the largest flouring establishment in the world.

NEW PLANING MACHINE.



Improved Planing Machine.

One of the prominent novelties at the great exhibition of the American Institute, Crystal Palace, N. Y., is the Planing Machine invented by C. H. Denison, Green River, Vt.

Our engraving is taken from the machine. Its operations attract crowds of spectators, who evince much satisfaction at the novel and rapid manner in which it does its work.

The machine is supported on an octogonal frame, surmounted by a circular revolving bed plate, A, of polished metal. The planing is done by means of two cutting apparatuses, both of similar construction, one on each side of the machine. Two boards are simultaneously planed. The boards are fed in and pass out on a tangent line to the circular bed, A. The feeding is done by means of the rotating bed plate A, acting in conjunction with feed rollers, B C. There are two of the latter upon each side of the machine, one being plain, the other fluted. Bed A and the feed rollers move in the same direction.

In nearly all other machines the feeding is done by means of feed rollers only, the bed being stationary. The stuff is pressed tightly down upon the bed, then drawn across its surface by the rollers. It is obvious that this method of feeding consumes much power, and is otherwise disadvantageous. A bed which presents a firm foundation for the stuff to rest upon while being cut, and which also moves in conjunction with the feed rollers, is a desideratum long sought for and often essayed; but the inventor of the present machine affirms that it has never, until now, been reached with practical success. From a careful examination of this invention, during operation, we are satisfied that the method adopted for feeding is a superior one.

D are the cutters, which consist of straight edges attached to a horizontal shaft. The cutters are adjusted at pleasure, and may be easily removed for grinding, etc. The cutter shafts are operated by belts passing over the pulleys, D. E E are accommodating pulleys, whose office is to keep the belt always in contact with D', during the adjustment of the cutter shafts.

The cutter shafts are mounted in sliding frames, F, which are raised or lowered to adjust the cutters to any thickness of stuff by the hand screws, G. Frames F are further tightened and secured in a given position by the hand wheels, H, whose shafts are provided with screws that gear with pinion nuts, I. The hight of the feed rollers is adjusted by the screws, J.

The feed rollers and the revolving table, A are all operated by the main shaft, K, with which the above parts are connected, by means of gearing, as shown. The under surface of bed A is furnished with a cogged rack, on which pinions, L, traverse, and give rotary motion to the bed.

This planing machine is simple, strong, and substantial in all its parts. The stuff is fed through with great ease and precision. Its work is done with a most excellent finish. Two boards, as stated, are planed at once. It is well adapted to the planing of ship's knees, curved and crooked stuff for chair and carriage maker's use, etc. Address the inventor as above, or Geo. Denison, 55 Cliff st., New York City, for further information. Patented Feb. 12th, 1856.

The Atlantic Telegraph Cable.

The London *Artizan* proposes that the new giant steamer *Great Eastern* be employed to lay the Atlantic telegraph cable between Ireland and Newfoundland. It could carry the whole cable and lay it down without trouble; and could not be employed in a better business on its first voyage.

Russian Steamships.

A correspondent of the *London Post* writing from St. Petersburgh states that a powerful company has been formed in that city, under government patronage, for the purposes of steam navigation on a grand scale. Twenty screw steamers of the largest class are to be built for it as soon as possible,—some in America, some in England, and a few in Russia.

Gold in North Carolina.

Since 1838 the gross produce of the gold mines of North Crrolina, as far as indicated by the Mint returns, is $4,233,336, and of Georgia, $5,685,864—total, $9,919,200 for the whole period.

German Silver for Castings.

Take lead, 3 oz., nickel, 20, zinc, 20, and copper 60, and fuse them together. The copper is first melted, then the nickel and lead added, and lastly the zinc, which is a volatile metal.