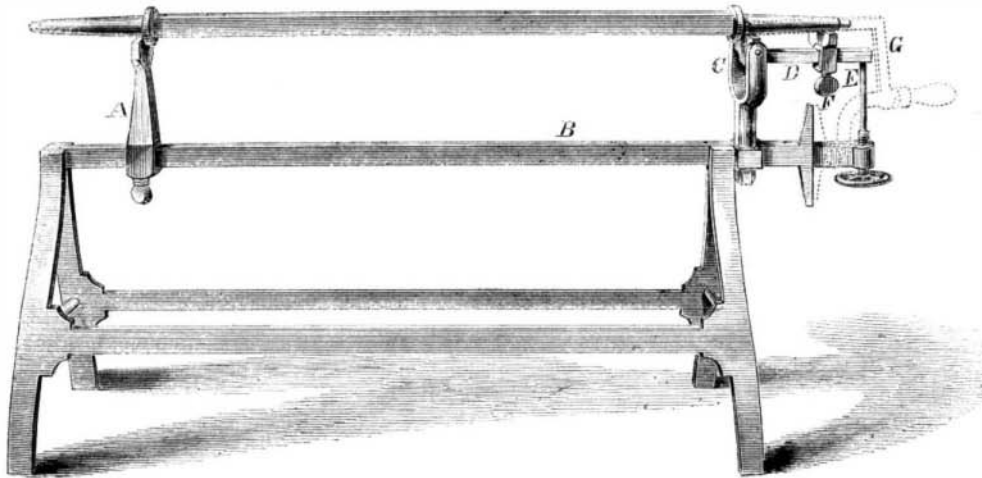


Improved Axle-setting Machine.

Axles for carriages are generally made by the quantity in large factories, the ends alone being furnished, they being lengthened by a piece in the middle, and welded together by the purchasers. In welding them, care must be taken to set the ends the wheel runs on perfectly true, in line with each other, otherwise the wheels will stand in or out of a vertical line, as our readers have seen in some shakly old country wagon. This machine is intended to make the process of setting the axles true, expeditious and certain, and is well arranged to that end. Any length or taper of axle can be set in a few minutes.

Fig. 1



means, very compact, easily cleaned, and will not harbor contagion; the arrangement is convenient, and facilitates dispatch in feeding; the cattle have a greater relish for their food, and the fodder never gets damp or heated. Fresh air inlets are placed in front of each cow, and a feeding passage for trucks runs along the heads of the stalls. The doors are of flagging and asphalt or brick.

HARPER'S GAS LIGHTER.

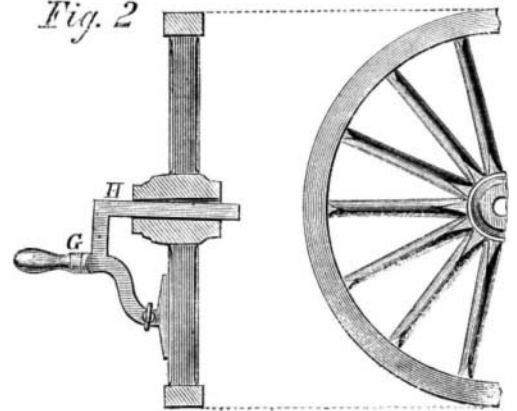
Where many gas jets have to be ignited—as in public buildings and street lamps—much time is generally wasted, and quantities of matches consumed during the operation. It will be conceded that the

further information address the patentee at the Metropolitan Gas Works, foot of 42d street, North River, New York.

Petroleum in Europe.

It is stated that petroleum has been discovered in Hanover, and capital is being privately subscribed in England to raise the oil from the wells, which are reported to be numerous. The constantly increasing importance of the trade in mineral oils at Marseilles, too, attract attention to the oil deposits of Europe. It is now considered certain that, in a period more or less short, the old continent will not be tributary to America for mineral oils for lighting. Every day new natural reservoirs of petroleum are discovered; and at the same time geologists are beginning to understand oil fields better, and the manner in which they are distributed over the globe. Among the localities which already export petroleum, is Moldo-Wallachia. Havre is the principal French

Fig. 2



GORTON'S AXLE-SETTING MACHINE.

In itself the machine is quite simple, being merely two uprights, A, on a frame, B. These uprights are adjustable by set screws at any distance. The upright, C, has a jointed bar, D, projecting from it, which rests on a screw rod, E. This bar is a straight edge, to show the taper of the axle; for when the same is placed on the uprights, as shown in the engraving, and the stop, F, brought up to it by the screw, the taper will be given by the gage, G, shown in dotted lines. If the axle does not touch the stop, F, it is too high on the end, and must be brought down by the blacksmith. If it touches at the end and not at the shoulder, it is too low, and must be treated accordingly. The axle is then turned end for end, and the operation is repeated. The T end on the frame is to set the T foot of the gage against, as shown. Fig. 2 illustrates the manner of obtaining the angle of the gage. The foot is set against the spoke, and the straight edge, H, is put in the axle box. This is a very useful machine, and will be of great assistance to wagon manufacturers.

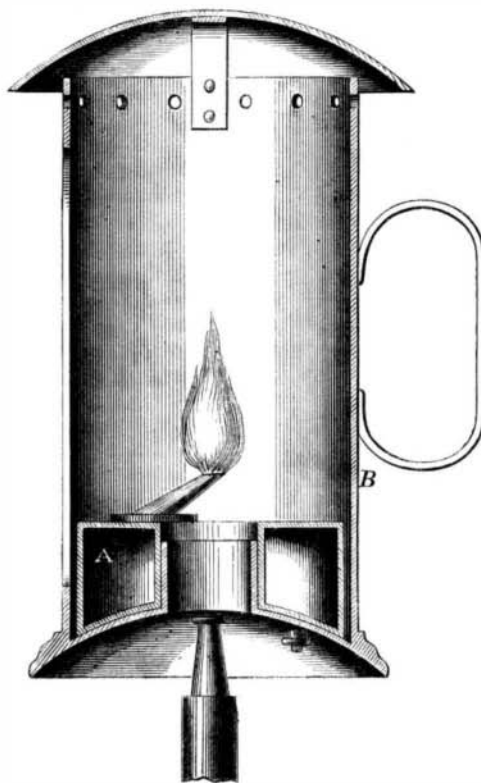
This invention was patented through the Scientific American Patent Agency July 25, 1865, by John Gorton, of Providence, R. I. For machines or State rights address him at No. 107 Cranston street, that place.

Iron Cow Stalls.

Our agricultural readers may be interested to learn the details of the new iron cow stalls in use abroad—similar contrivances being partially introduced in this country. The stalls are formed of strong division plates of cast iron, the front having a round dwarf column which offers a smooth surface to the cattle when turning in or out; and each cow is fastened by the ordinary chain passing round the neck, the end of which slides up and down, a vertical iron rod attached to the stall division. The troughs or mangers are of cast iron, the whole length of the stall, raised a few inches above the level of the pavement, and are combined with the stall division in such a manner that water emptied into any one trough will flow along the entire range.

The fodder is contained in a wrought-iron rack, raised about a foot above the trough, and has open rails at back as well as in front, to expose the fodder to the action of the air. The advantages claimed for these improvements are, the stalls are more durable than can be attained by any other

lamp shown in the engraving is a great improvement on the common way of doing the business, being much more expeditious, cleaner, and more economical. With these recommendations it should certainly become popular. In order to light a gas jet with this device, it is merely necessary to set the lamp over the burner, as shown, when the flame of the lamp communicates with the gas, and lights it at once.



In construction, the device is simply a spirit lamp, A, set in a case, B. This case has an orifice at the bottom, which is placed over the burner with the result already alluded to. The lamp can be trimmed through a door in the case, and is protected from the weather. This is a convenient affair, and was patented through the Scientific American Patent Agency, by John G. Harper, on July 25, 1865. For

market for petroleum. The *Marseilles Semaphore*, however, is of opinion that Marseilles, is destined to become a large market when the European reservoirs shall be worked on a large scale, and when it can receive the mineral oils of Asia by the Isthmus of Suez. There is an intimate connection between the reservoirs of petroleum in Gallacia and Moldo-Wallachia. These two oil regions, in fact, only form one, which corresponds to the general line of the Carpathian mountains—*London Artizan*.

MARKET FOR THE MONTH.

The leading events in the commercial world for the past month are, a great speculation in cotton at Liverpool, an advance to seven per cent in the rate of interest by the Bank of England, a speculation in grain at Chicago, and a rapid extension of the credit system in our dry-goods trade. We look for a collapse in both speculations, and ultimate heavy losses by those who are granting large credits in our inflated currency. Prices at the last of October compare as follows with those at the end of September:—

	Price Sept. 25.	Price Oct. 25.
Coal (Anth.) 2,000 lb.	\$12 00 @ 12 50	\$13 00 @ 13 50
Coffee (Java) 100 lb.	29 @ 30	32 @ 34
Copper (Am. Ingot) 100 lb.	32 1/2 @ 33 1/2	31 1/2 @ 33 1/2
Cotton (middling) 100 lb.	44 @ 45 1/2	57 @ 60
Flour (State) 100 bbl.	\$7 60 @ 8 35	7 80 @ 8 75
Wheat 100 bush.	2 15 @ 2 50	2 40 @ 2 80
Hay 100 lb.	60 @ 65	60 @ 65
Hemp (Am. drs'd) 100 tun.	325 00 @ 350 00	310 00 @ 325 00
Hides (city slaughter) 100 lb.	11 1/2 @ 12	11 1/2 @ 12
India-rubber 100 lb.	36 @ 70	35 @ 75
Iron (American pig)		49 00 @ 50 00
Iron (English and American refined bar)		125 00 @ 130 00
Lead (Am.) 100 lb.	9 50 @ 9 62 1/2	10 00
Nails 100 lb.	8 00	8 00
Petroleum (crude) 100 gal.	38 @ 38 1/2	37 @ 37 1/2
Beef (mess) 100 bbl.	9 00 @ 15 50	11 00 @ 17 00
Saltpeter 100 lb.	22	22
Spelter (plates)		10 1/2 @ 10 1/2
Steel (Am. cast) 100 lb.	13 @ 22	13 @ 22
Sugar (brown) 100 lb.	11 1/2 @ 17 1/2	13 @ 19
Wool (American Saxony fleece) 100 lb.	75 @ 77	75 @ 77
Zinc 100 lb.	14 @ 15	15 @ 15
Gold	1 44	1 46 1/2
Interest (loans on call)	5 @ 6	7

Work upon the Chicago lake tunnel is to be carried on through the winter, and provisions, coal, and stoves have been carried out in tugs to warm and comfort the laborers in the cool depths. About thirty-five men will winter in the crib.