PROGRESS, SATURDAY, DECEMBER 19, 1896

HOW BRIERS ARE MADE


 pipes comes ahied if irom Francee and large y trom the region of the Pyreness ; it is Sicily. Only verty root, or that pares of the wool chat rrows underground, is uaed. II
io sumed into oblong blocke which have no
nemblance to the torm of enficient dimenions to permit the fash ionigg of a pipe from it. The easmed blocks
aro eonked in alt mater, dried, and seass
oned. They are imported int iti oned. They are
in large bage.

## in larre bagg.

are sorted out in thers the brier blocke maller pipes, end then if lor larger and are trimmed down before obeing to to the
machines that are actually to thape the pipe naccines that are actually to ohape the pipe,
litlo olabb or bite may be saved off the
block to bring it down clone to the the pipe that is to be cnt from it $;$ but no the pipe that is to be cnt from it; but no
much needs to be cut off, for the block are aswed originally so that there will be
as little waste as possible. Then the brier block goes to the poserer, the firat of the machines emploge
ing of the pipe.
The
The boring machine has three krives
set in the amme plane; the middle knite
bores out the bowl of the pipe, the two ores out the bowl of the pipe, the two
outer knives cut amay the wood on the outide and form the obape of the pipe
Theese knives, stt in a lathe, make more than 4,000 revolutions a minute.
The middele knite, which bores out the bowl, is longer than the
two outide knives, which shape the bowl. The borer cuta the pipe out to it
full depth; the cuttrre, in the case of a
 making a wood pipe of the bulldog shape,
an additional side tool is used to ohape the bowl for a little spaee below it to greatee
circumference. In makiog an egg-shaped ing a pipe of
nolved.
is still a brien block comes from the bore bored down into one end of it and the out depth. The block wisth tte pipe thus parcly cut in it goes then to a lathe is cir
oular, ilike a circular sam. It thas peculia knie-like teeth. It is revoved tiak pecuiar a cirhlock, with the bowl partly shaped out, 1
 sat it is desired to cut the block. This moothedged wheel attached to to the lathe brought into contract with the cutting heel in precisely the same manner thas centre line of the block is brought near to it recedes from the teeth of the cutting y or lighty accordingly. Whether the stem
of the pipe is ound, oval, or tquare makee oo difference ; the cutting wheel cuts amaj The work of the irregular lathe is very quickly, and the pipe comes from it
with bowl and stem rompletely thaped out The tobacco bowl has been bored out, but no etem here epoken of is the brier stem mouthpiece
This pipe is then rough finished and fine
 After the first fine finibbing the pipee are ipes that have any outoided ; decoends are The hole through the stem is bored with ing rapidy in a lathe. Fine pipes are cenbored exactly in the center; ordinary pipes are held agsinst the wire borer by Sand, but pipes thus bored are almoot withluread in the end of the o band, if it is to have one miece. Then mouth piece. Then oine band, the bit or it or
have one around te wood dem where it
his one joined by the bit or montenpemeon, whe A light brier in ints naturalal atate io of rothther


$$
\begin{array}{ll} 
& \\
\vdots
\end{array}
$$

## Whidide



##  <br> 

## SKATES!

Starr Manufacturing Co.'s Celebrated HOCKEY and ACME SKATES
Whelpley's Superior Long Reach and Acme Skate
W. H. THORNE \& OO. (Limited),

MARKET SQUARE.

## Hot Water Kettles

## Sinct <br> All made of SOLID BRASS ly finished, with and without Brass and Wrought Iron Stands and Spirit Lamps. The finest assortment ever Elegant Patterns, Low Prices. <br> Brass Fire you seen our stock of English Coal Vases Emerson \& Fisher. A Choice of Reading.

Look Carefully Through ‘Progress’ Periodical Club List.

GREAT REDUCTIONS IN PRICE.

By Subscribing Through "Progress," Readers of Magazines and Popular Weeklies, Class Papers, Reviews, \&c, can obtain the Two Periodicals at a Price that Speaks for Itself.

## Wiith much care ProcrRss has made up a club list of newwpapers and periodicalis ial can be had at a greantly reduced price by those who sibseribe in connection wit wobberibere the same is open to present subscribers who will send us the name of 

