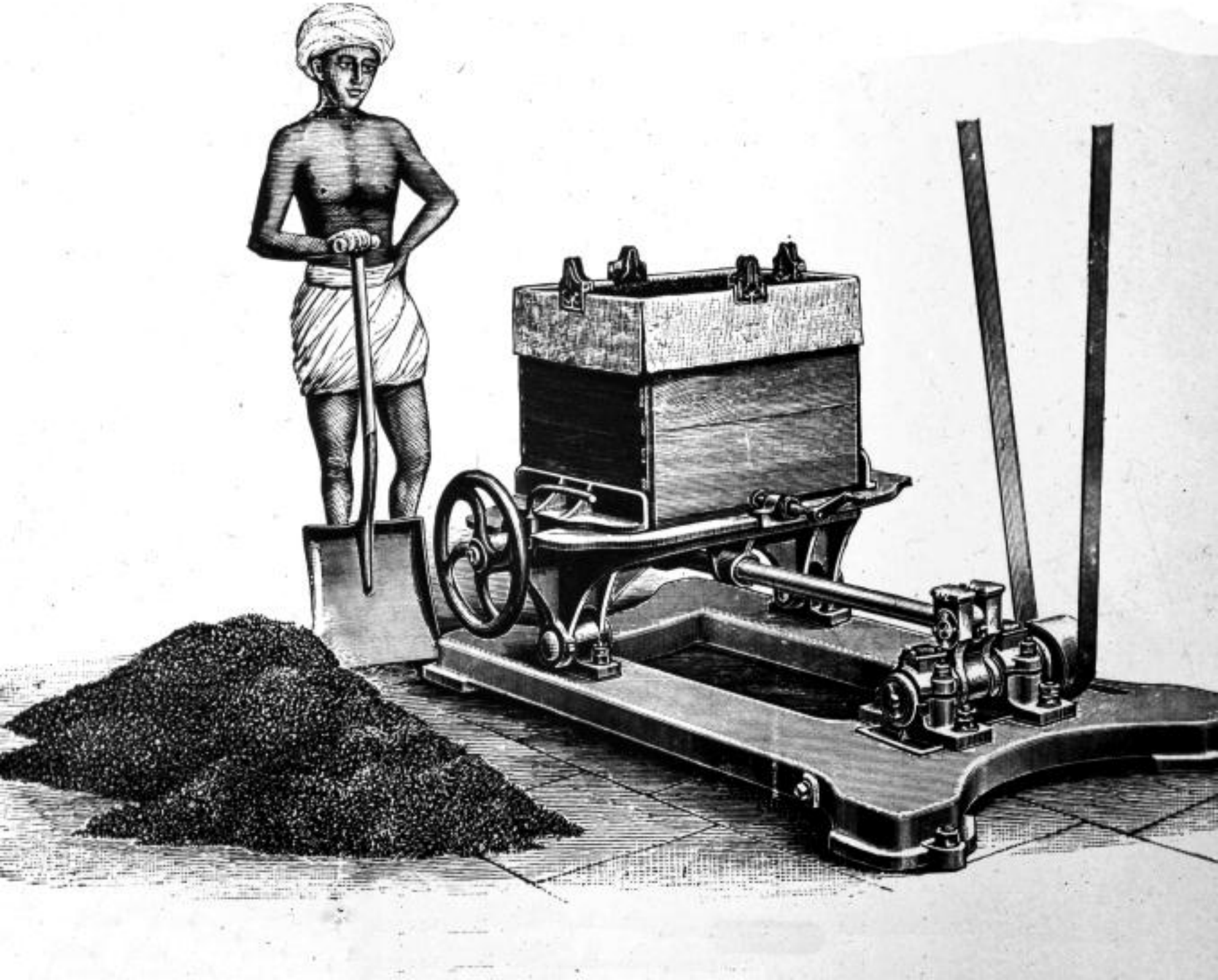
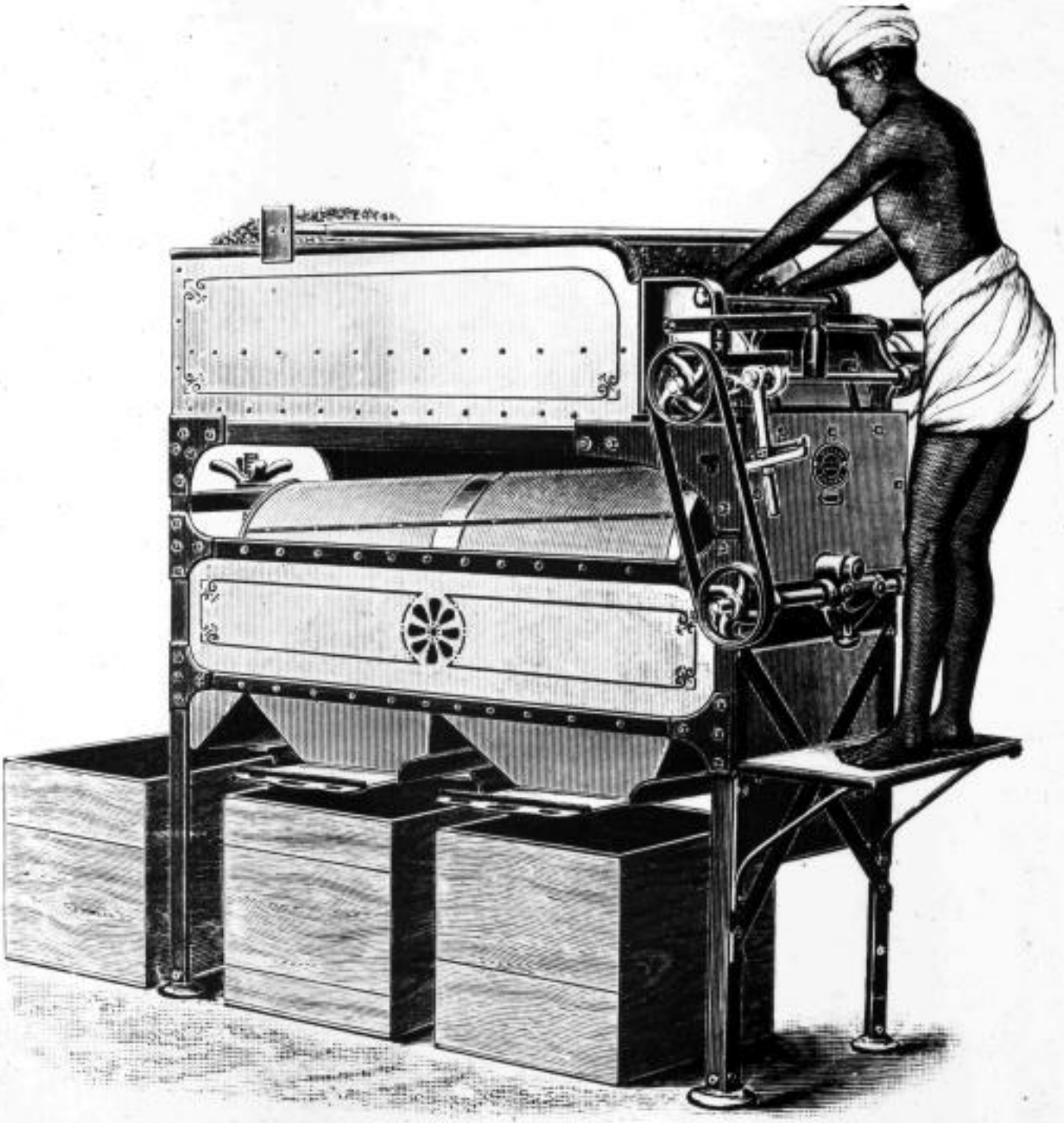
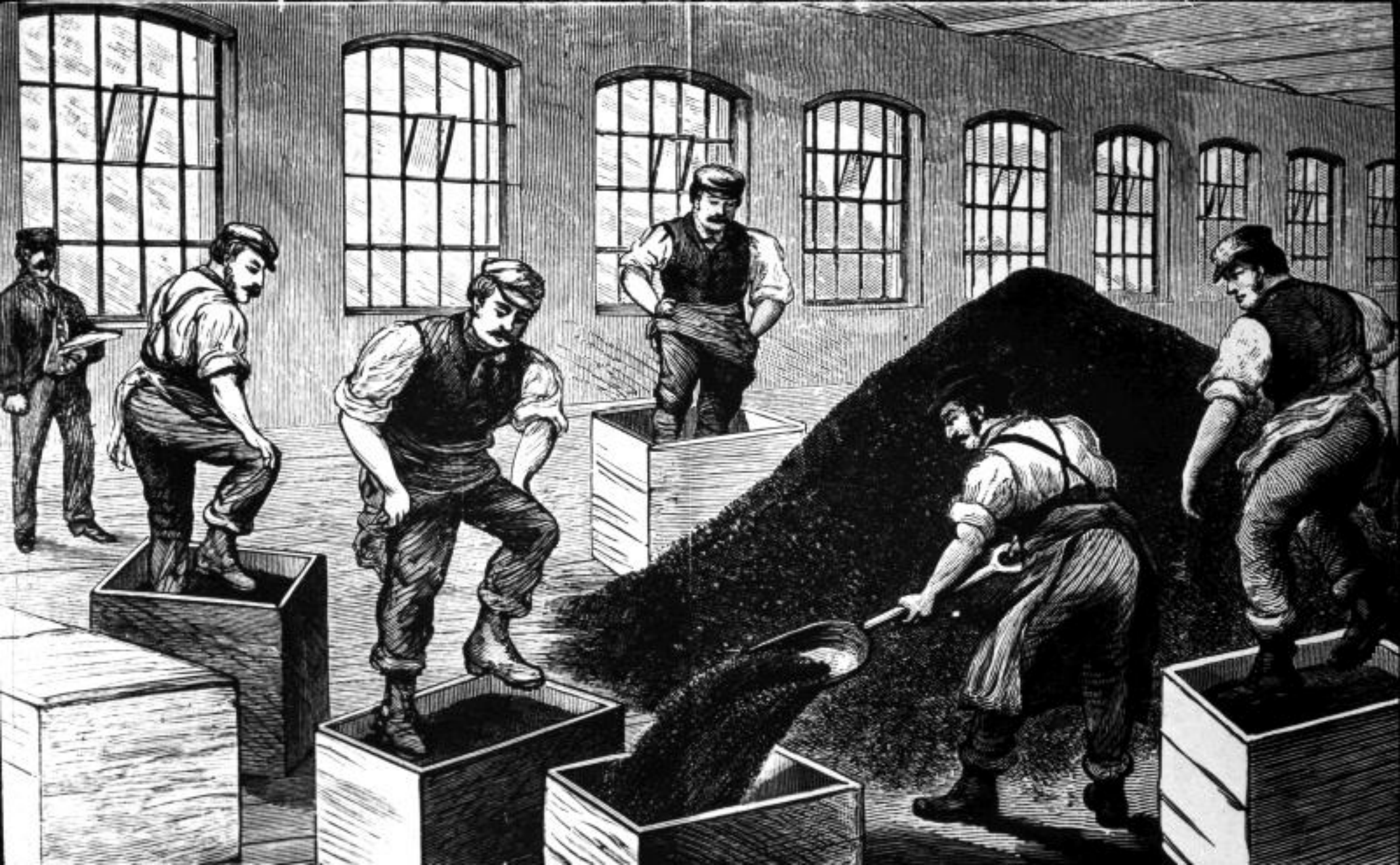
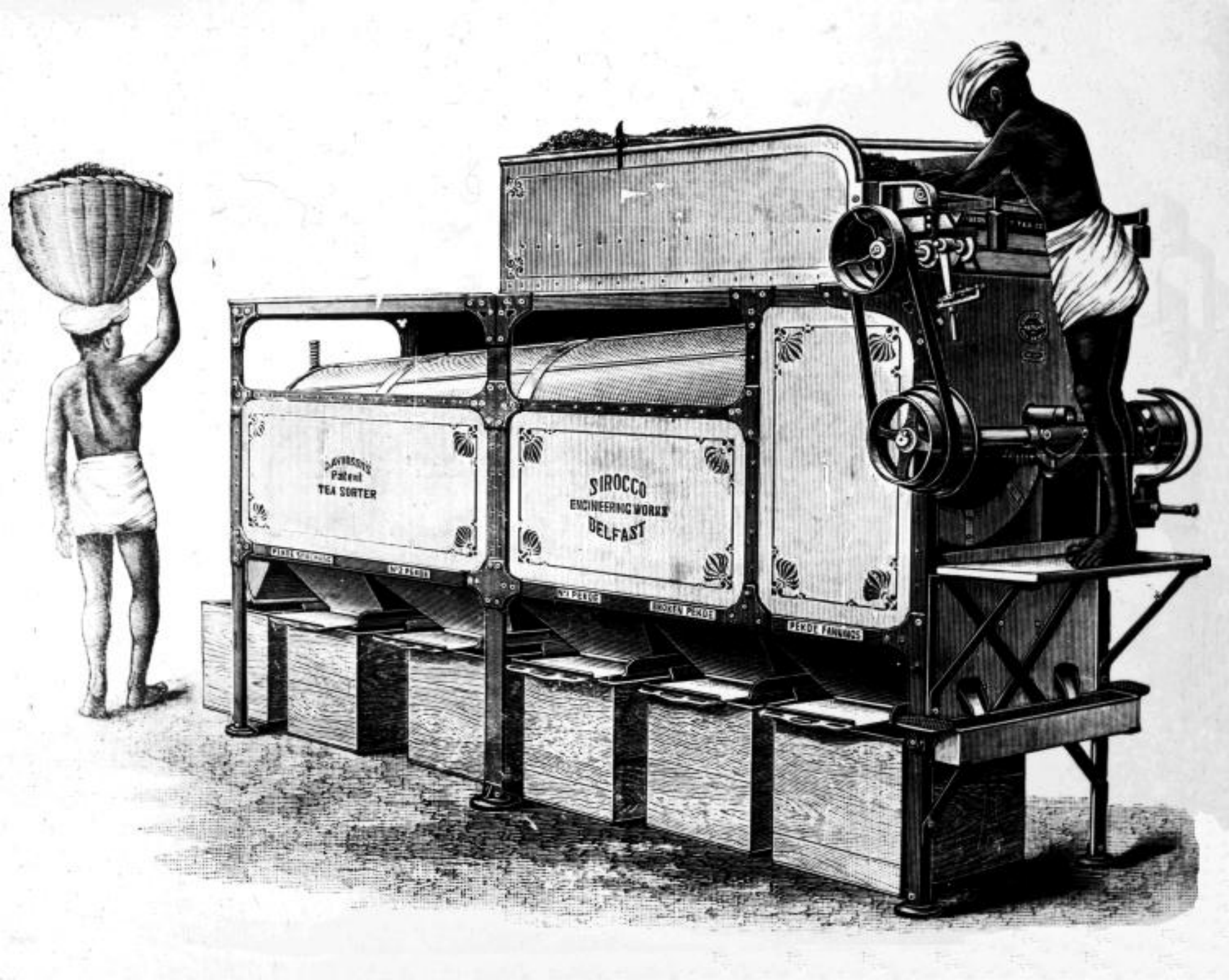
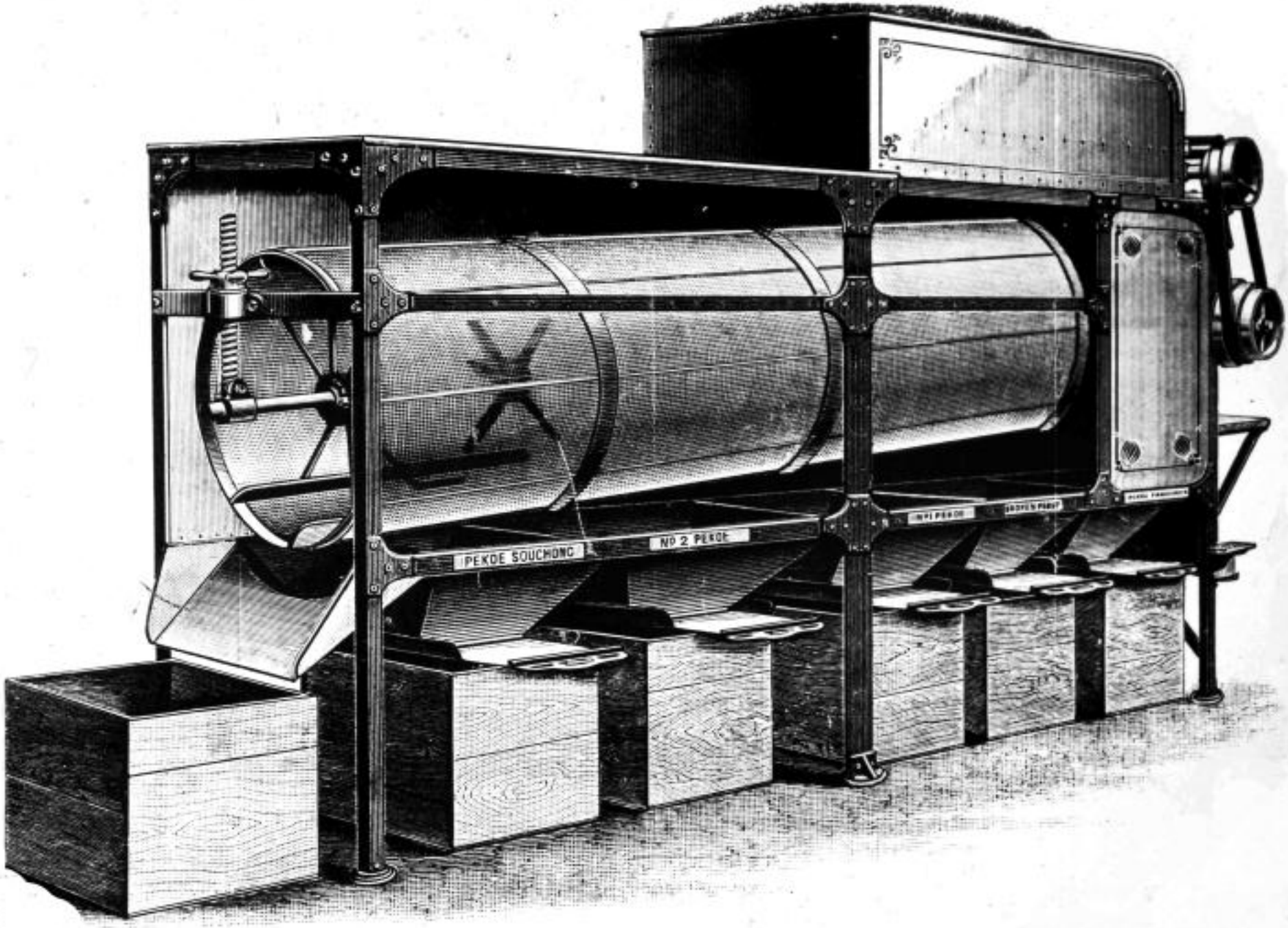
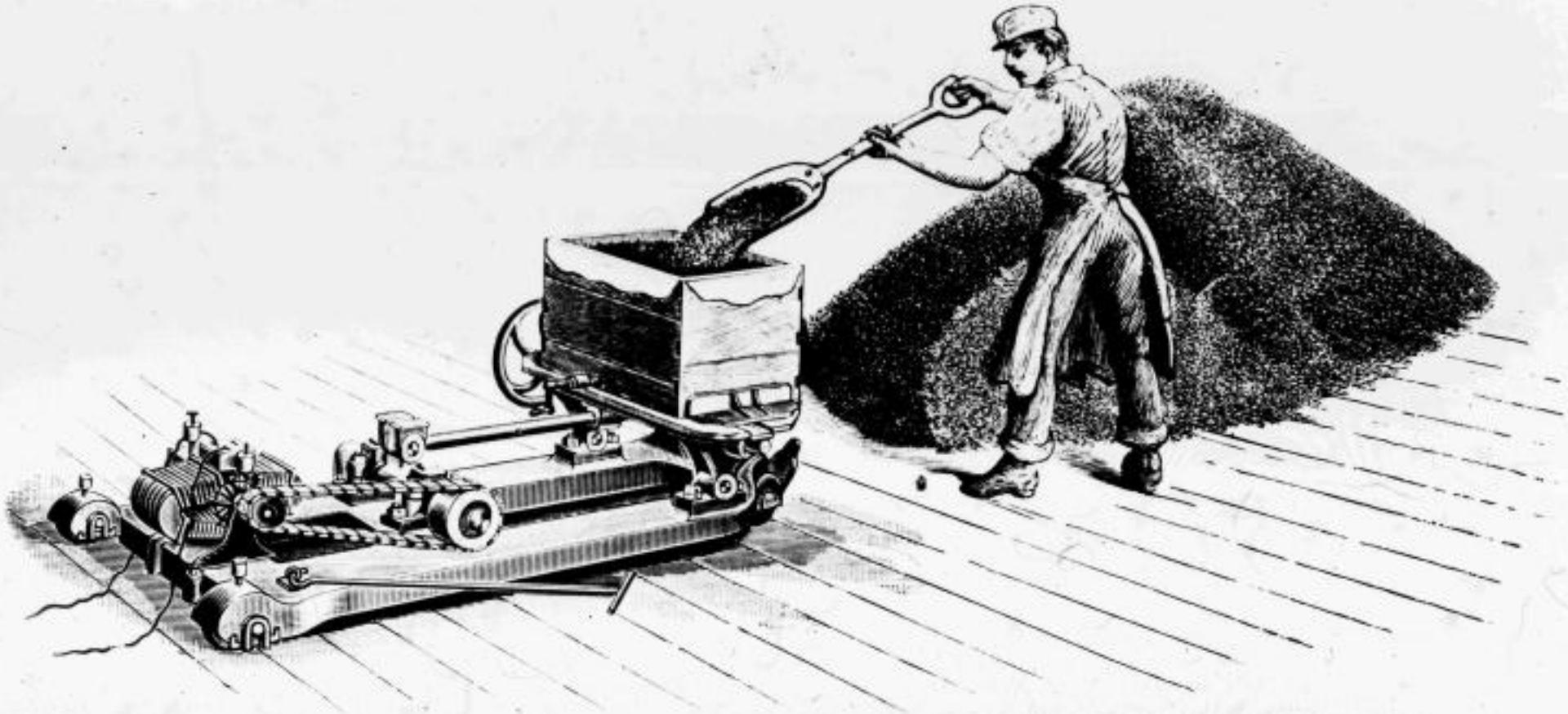







Patent
TEA SORTER
SIROCCO
ENGINEERING WORKS
BELFAST

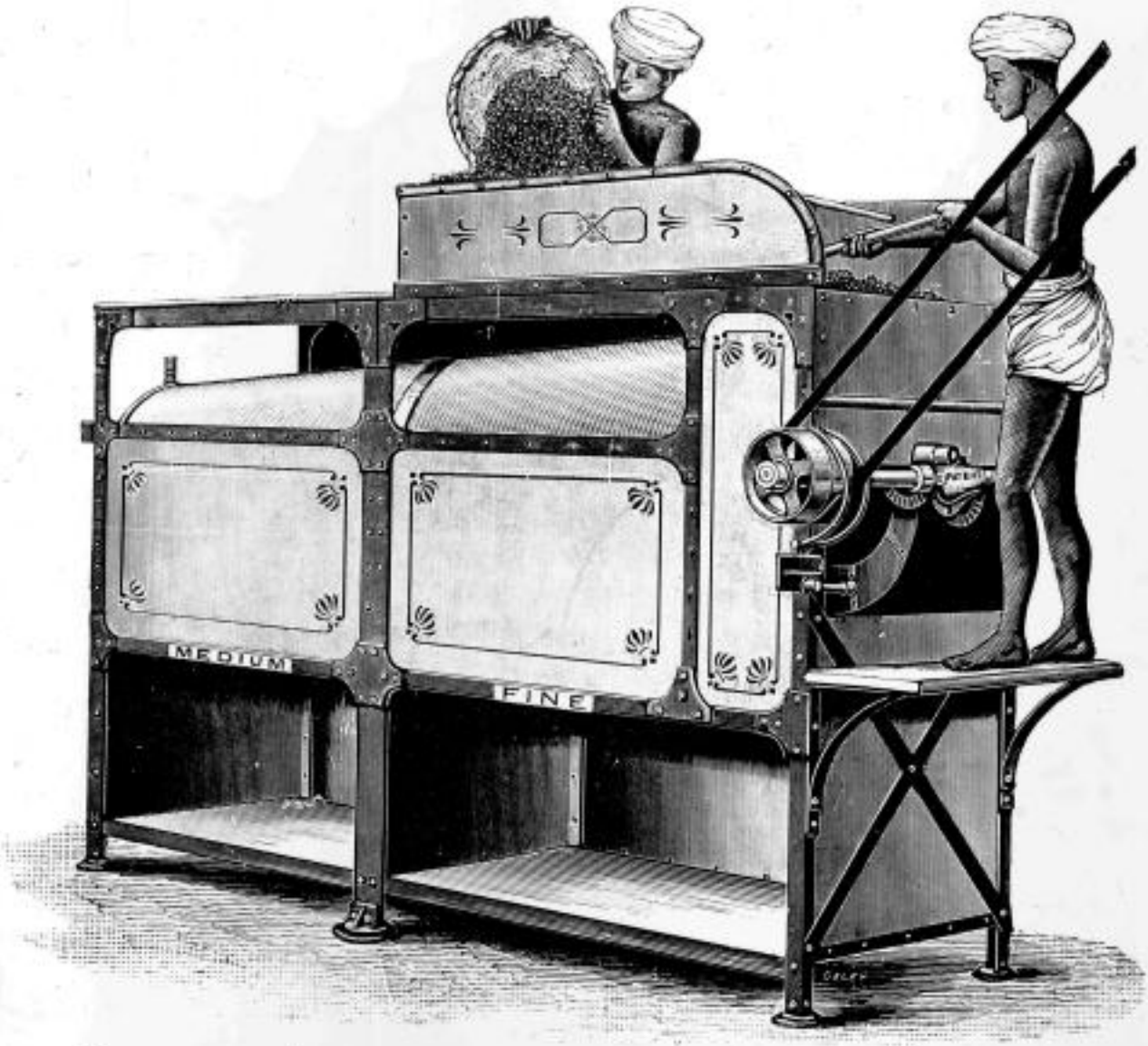

PEKOE SOUCHONG
No 2 PEKOE



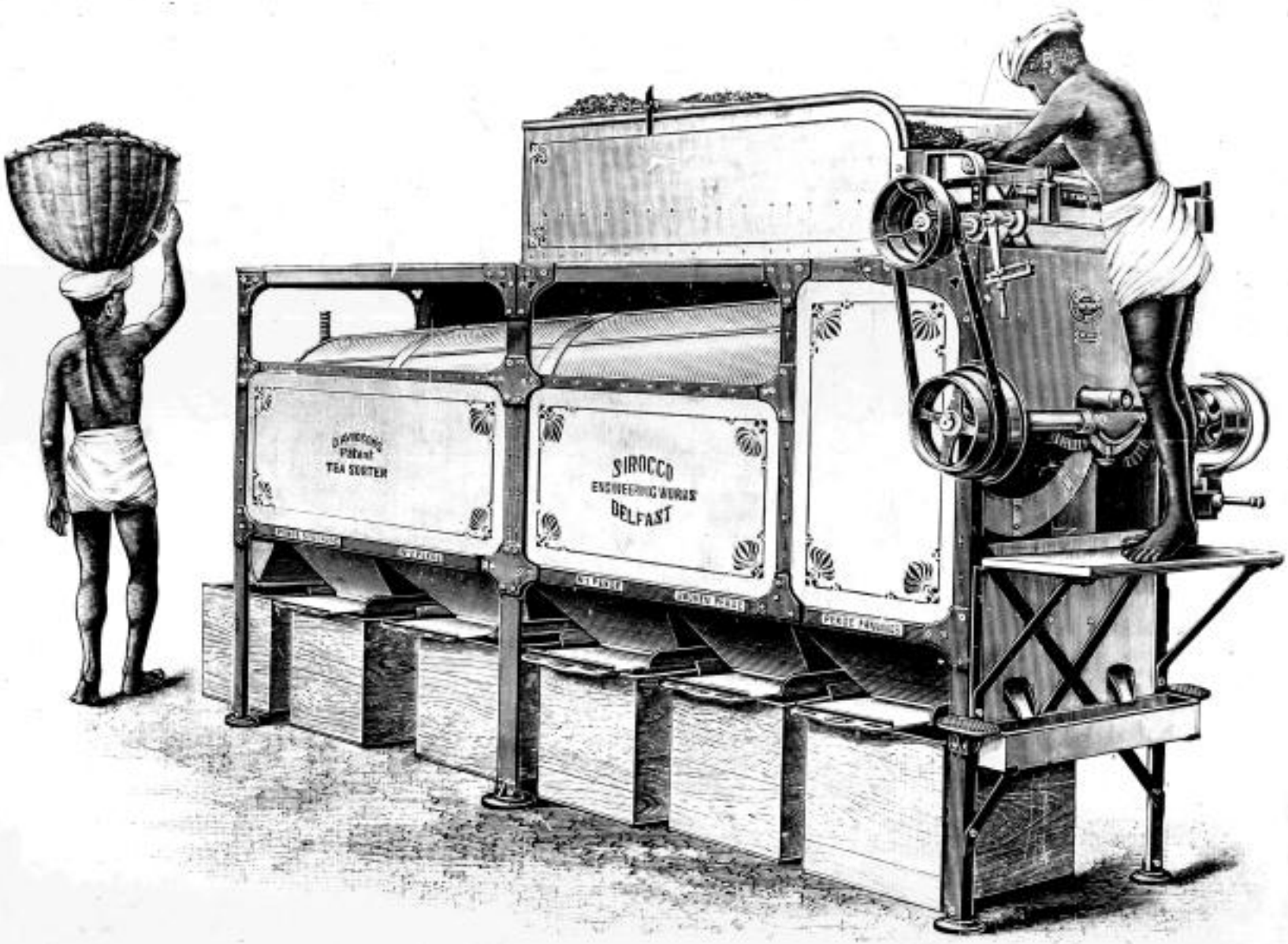
Davidson's Patent Electric Portable Tea Packer

For Warehouse Use

Davidson & Co Makers Sirocco Engineering Works Belfast.

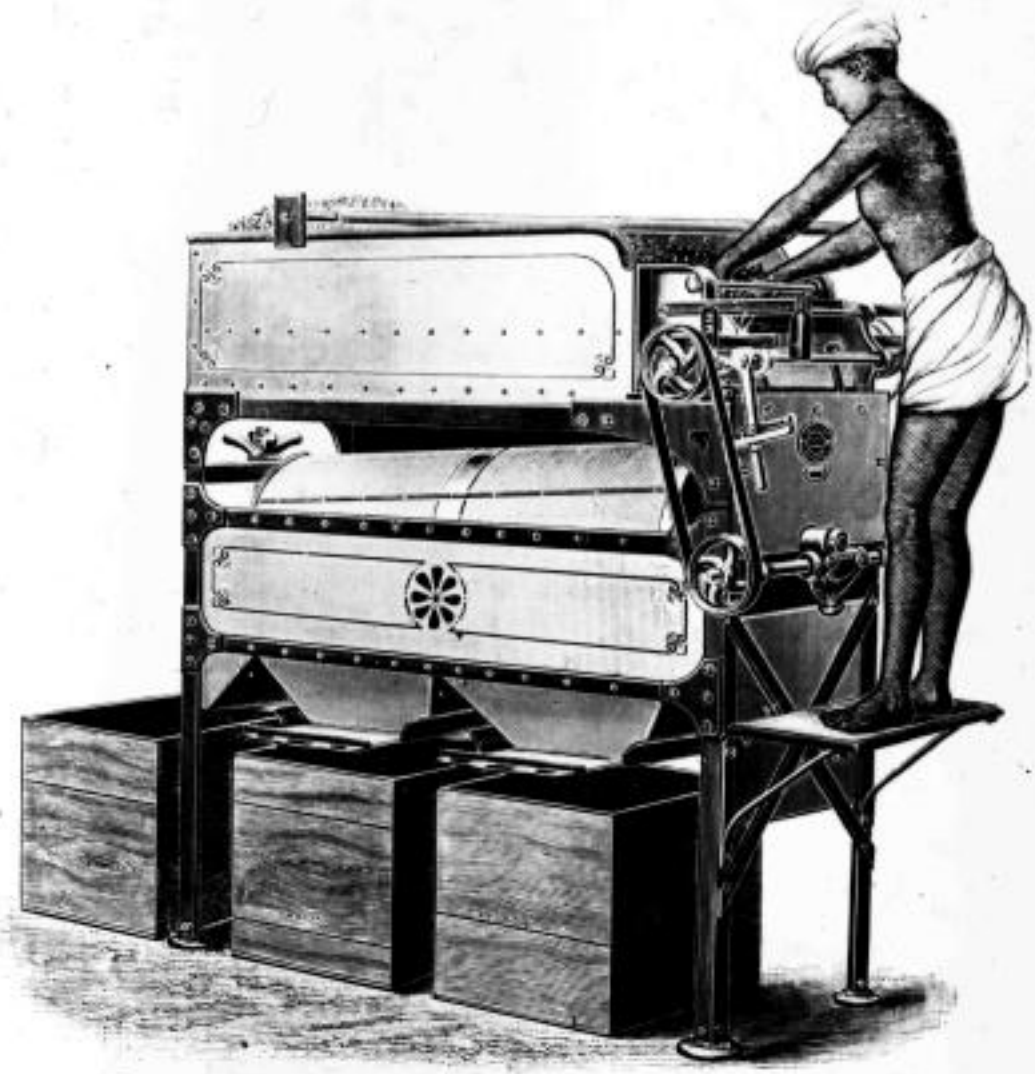


Davidson's Patent Rolled Leaf Sorter & Cooler



Davidsons Patent Tea Sorter Large Size

Sorts 800 to 1000 lbs of Tea per hour

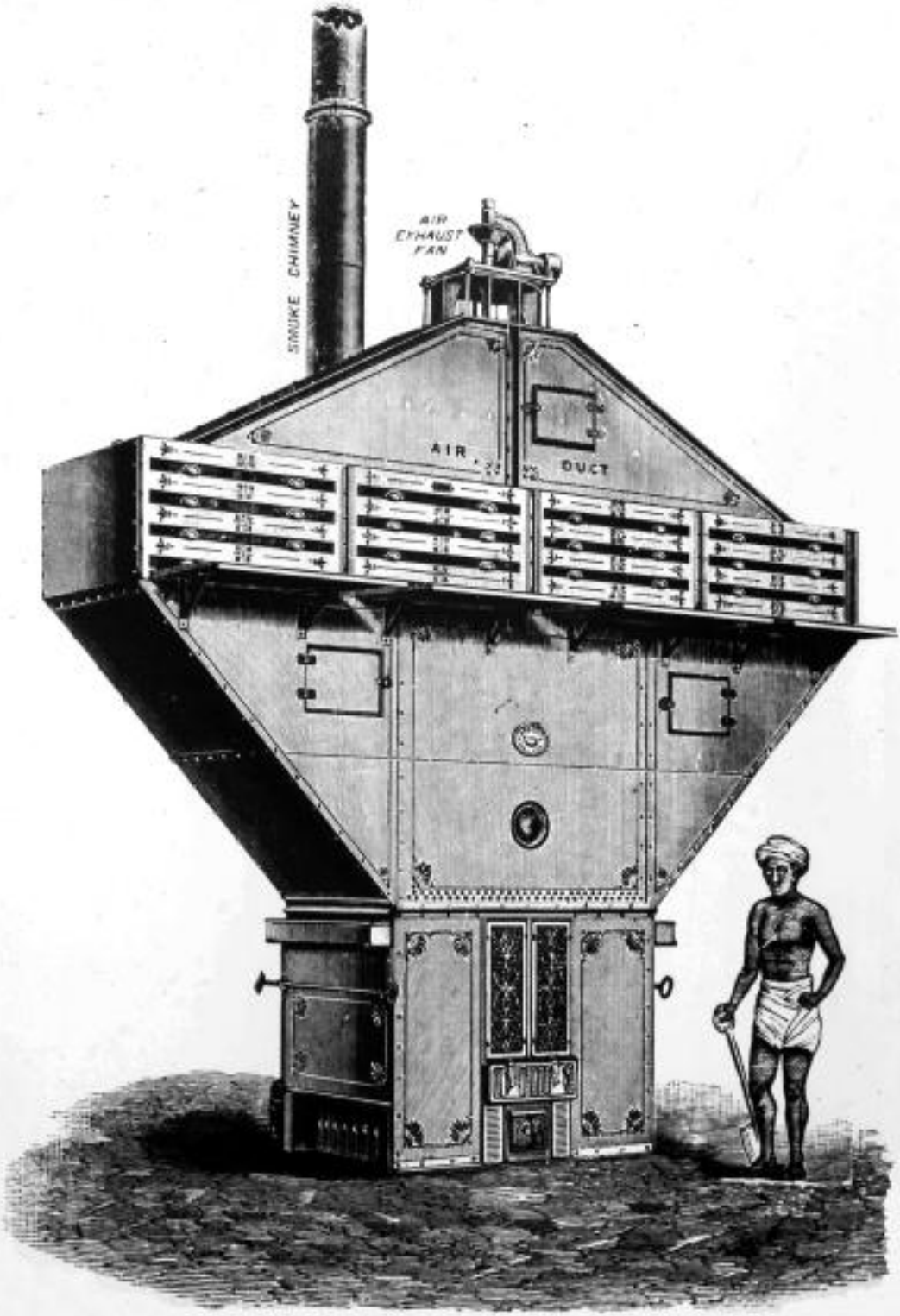


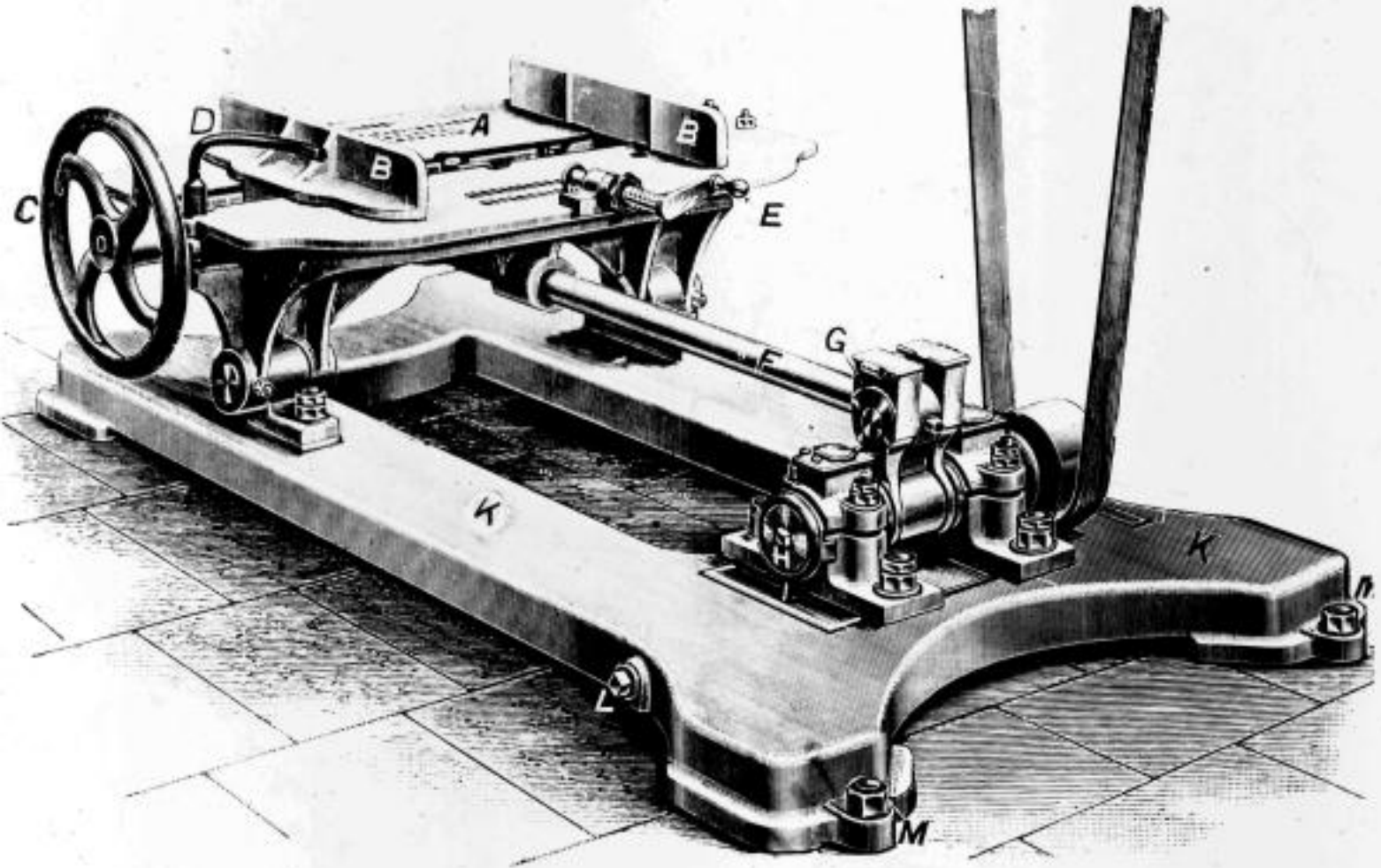
Davidson's Patent Tea Sorter and Cutter

Small Size

For Reducing and Classifying Coarse Tea

Davidson & Co Makers Sirocco Engineering Works Belfast

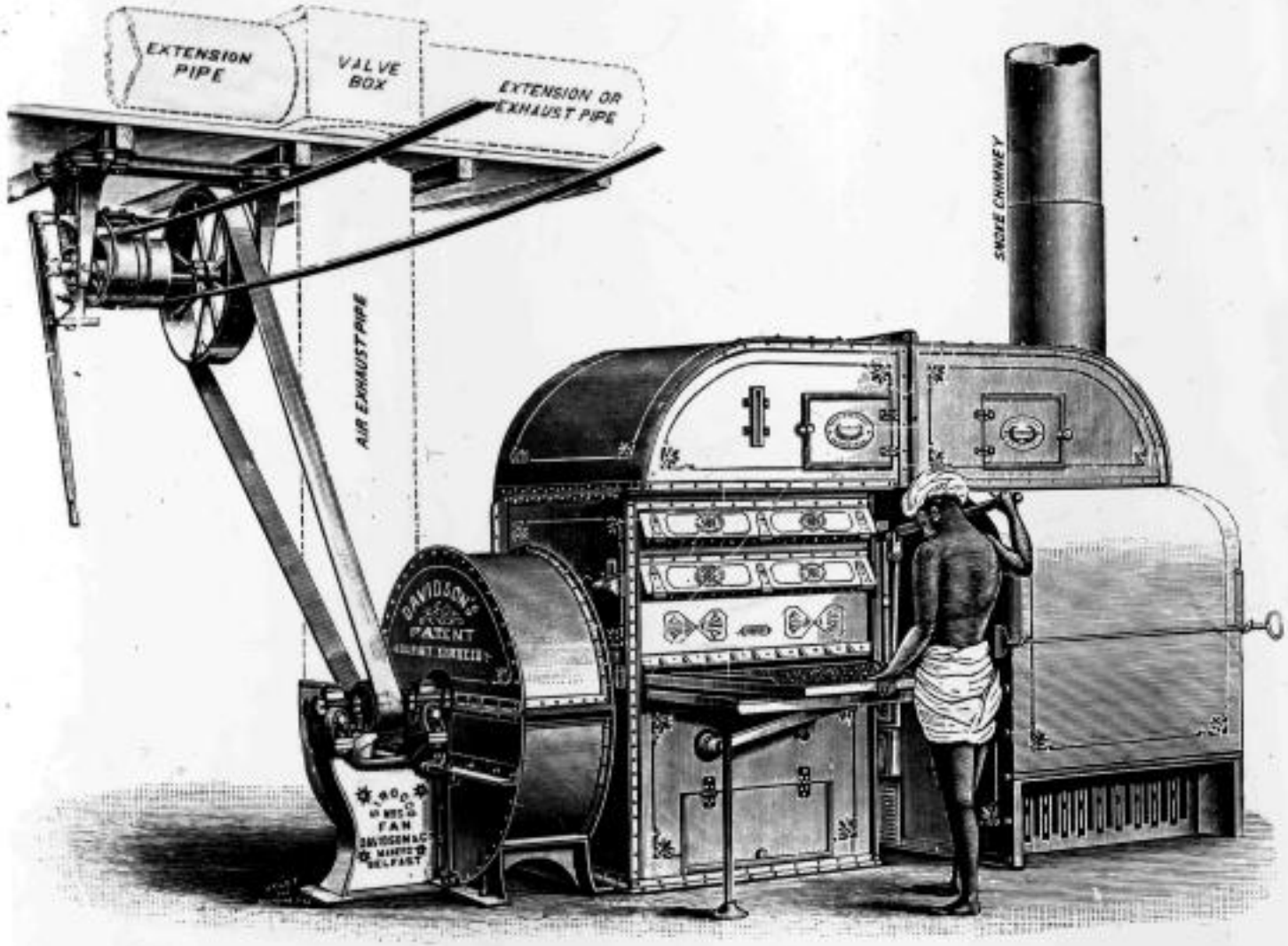

SMOKE CHIMNEY
AIR EXHAUST FAN
AIR DUCT



The Davidson-MaGuire Patent Tea Packer

Lettering Indicates Detail Construction

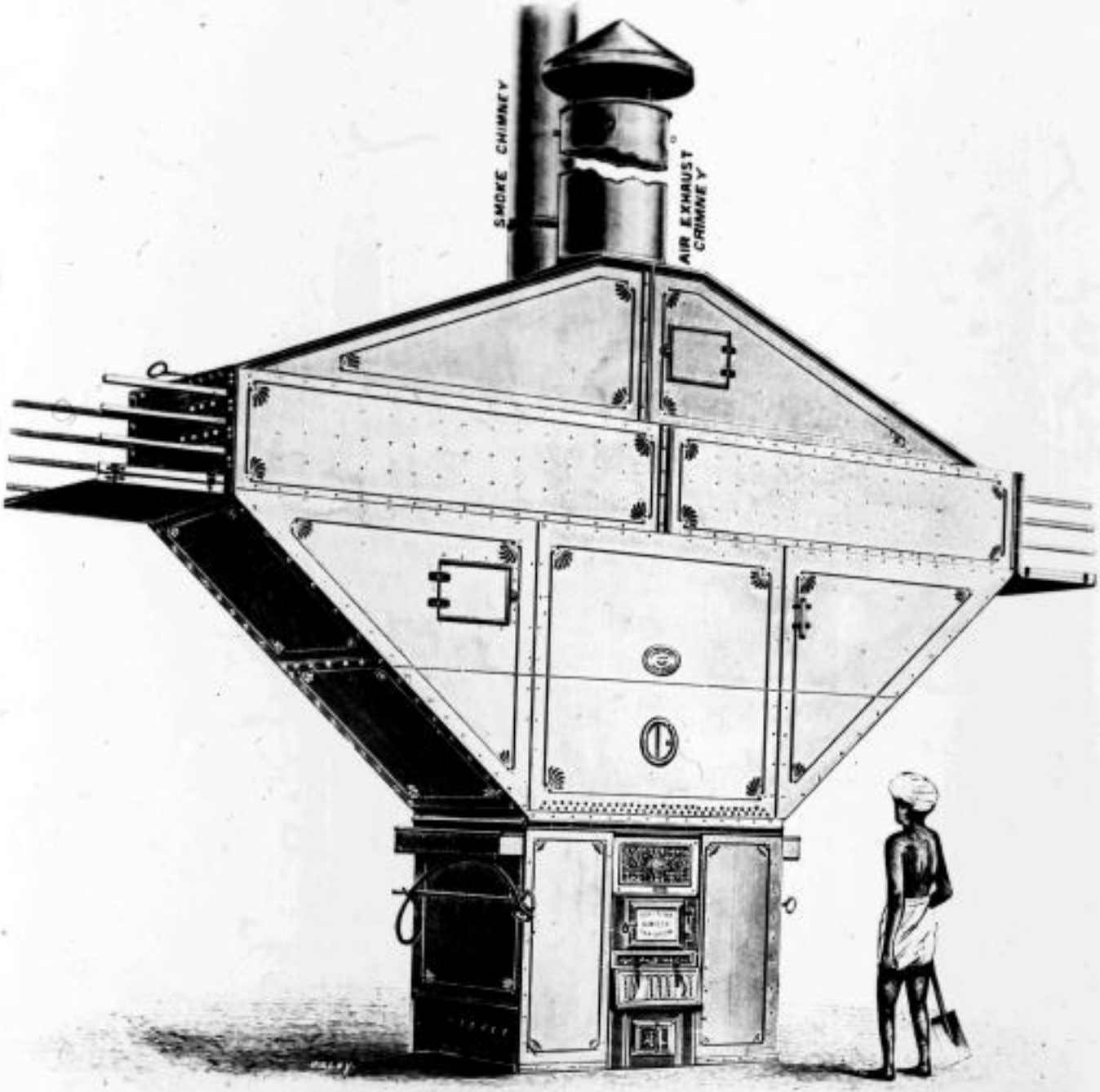
Davidson & Co Makers Sirocco Engineering Works Belfast



Davidsons Patent Down-draft Sirocco Tea Drier

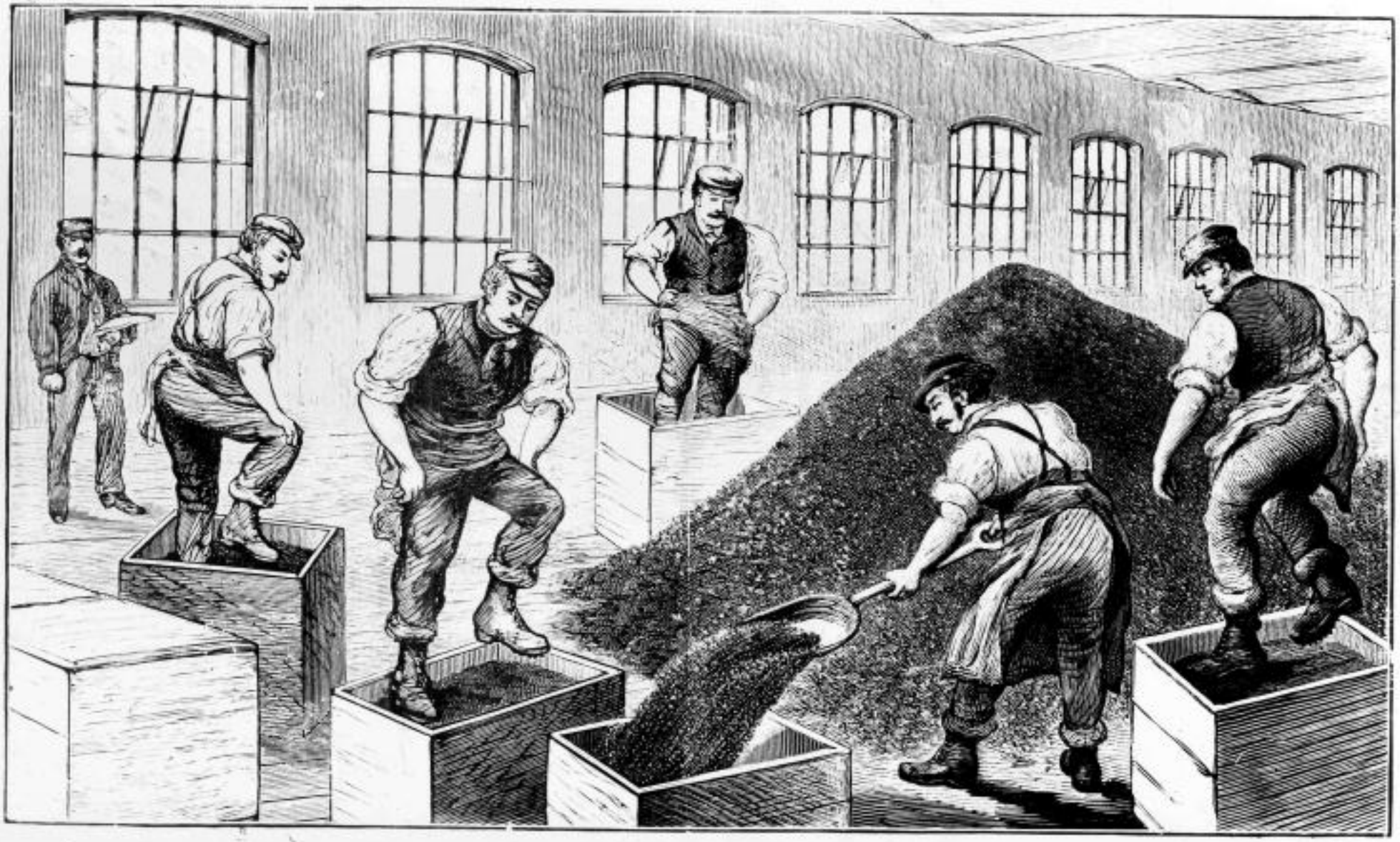
Thousands now in use

Davidson & Co Makers Sirocco Engineering Works Belfast



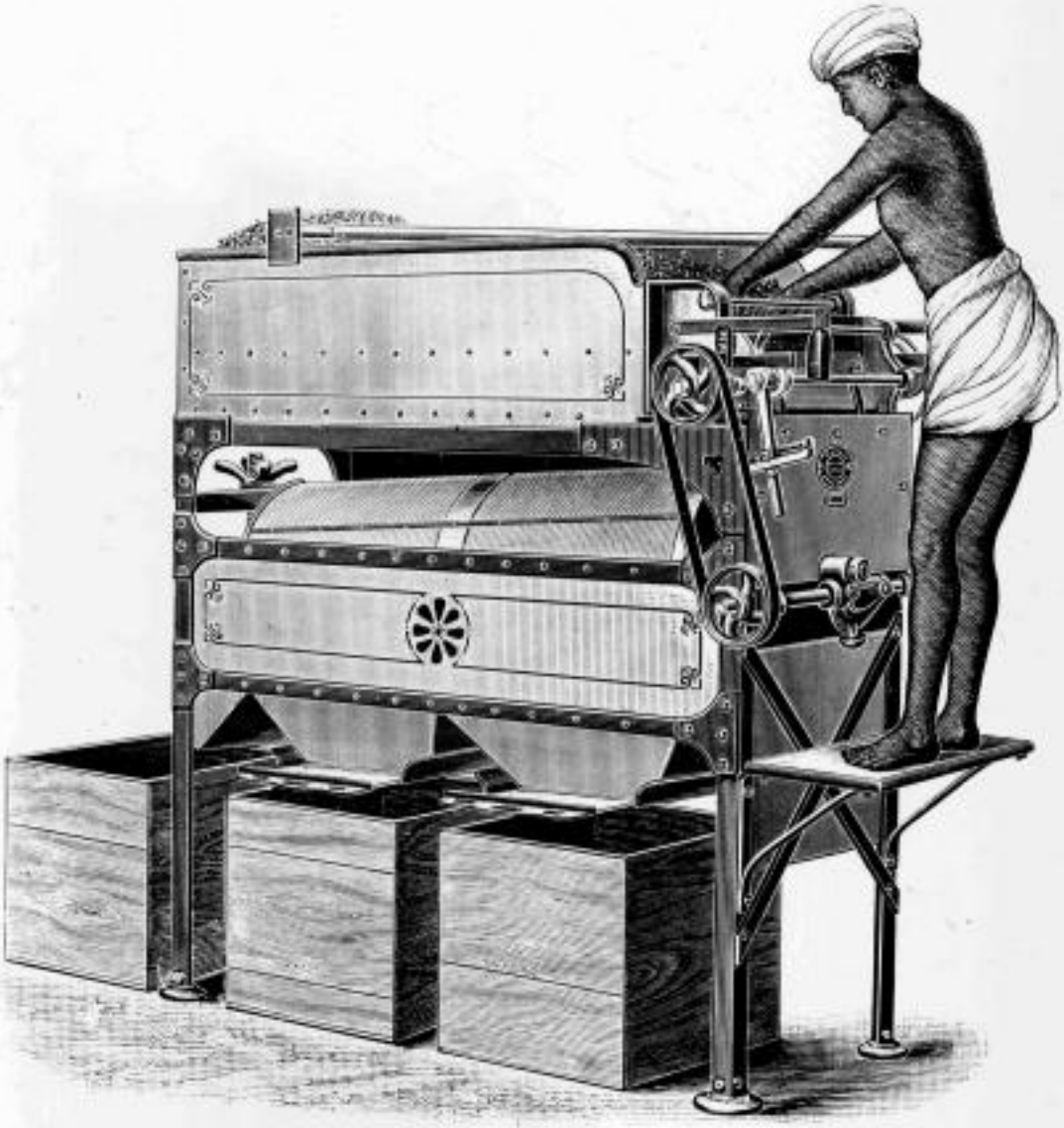
Davidsons Patent Self-acting Updraft Sirocco

Davidson & Co Sirocco Engineering Works Belfast. Makers.



Treading in Tea in the London Warehouses

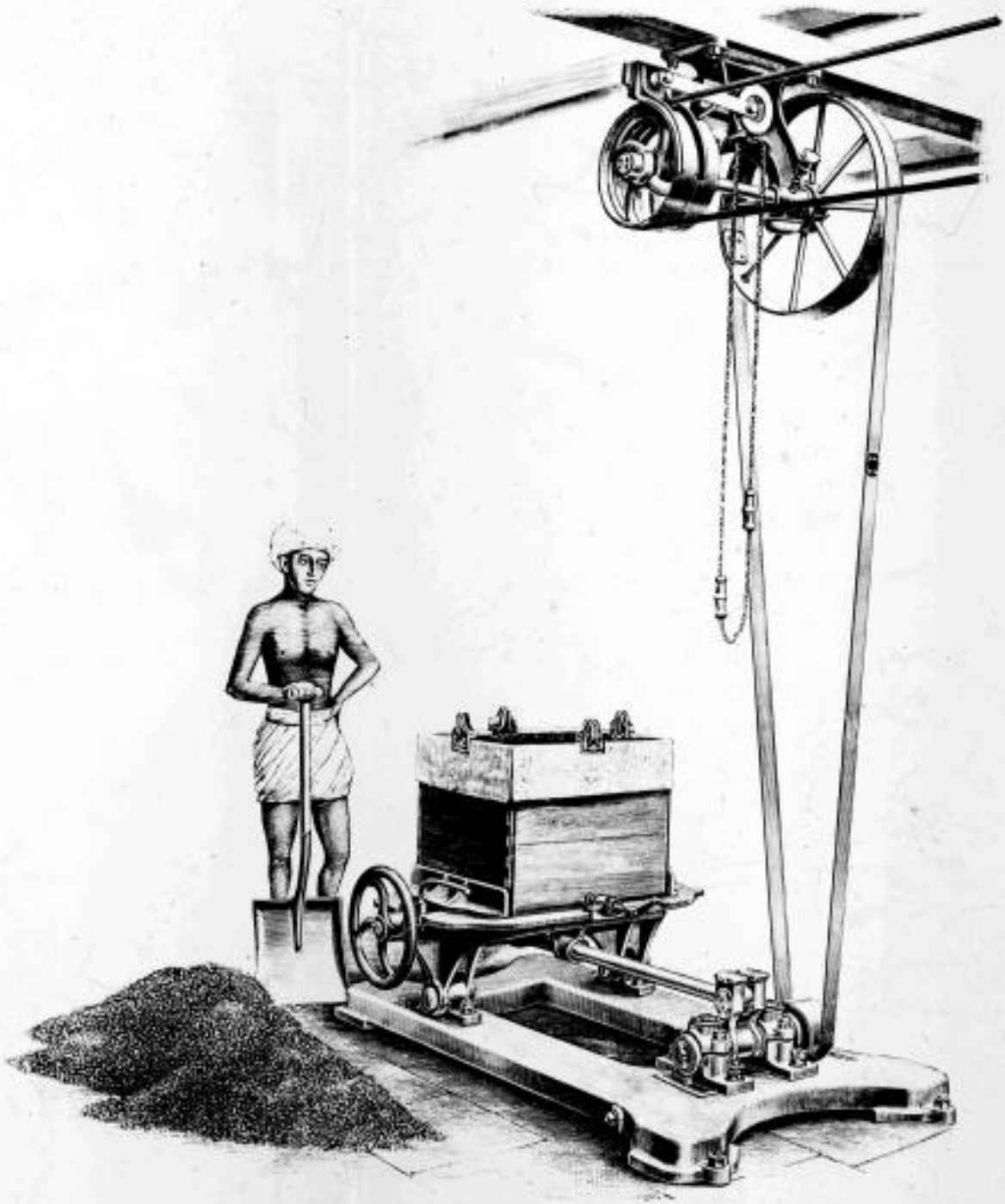
Ordinary Method of Refilling Chests



Davidsons Patent Tea Sorter and Cutter

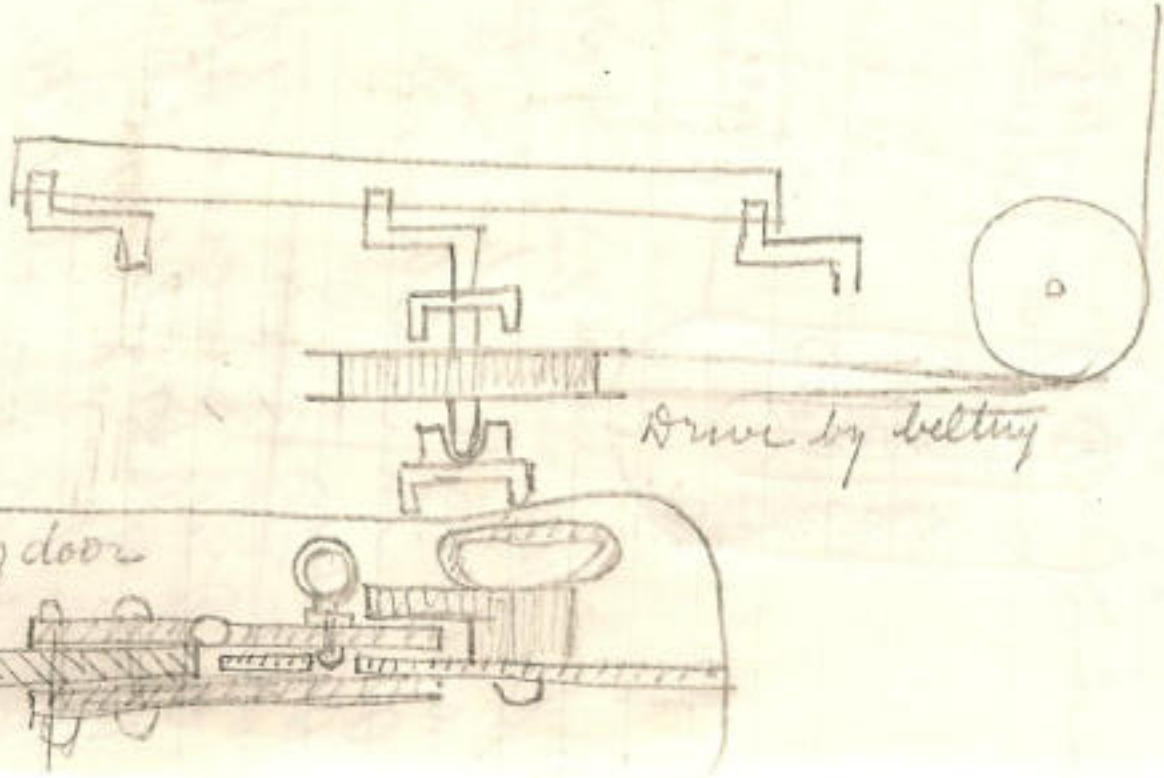
Small Size

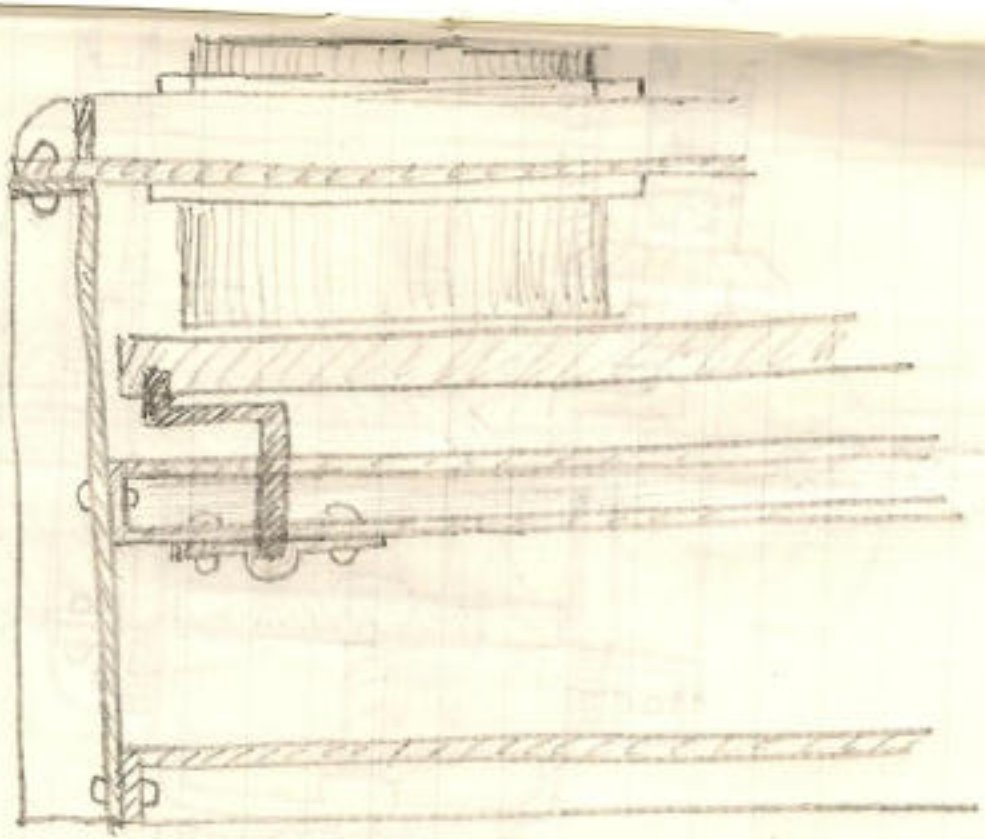
For Reducing and Classifying Coarse Tea

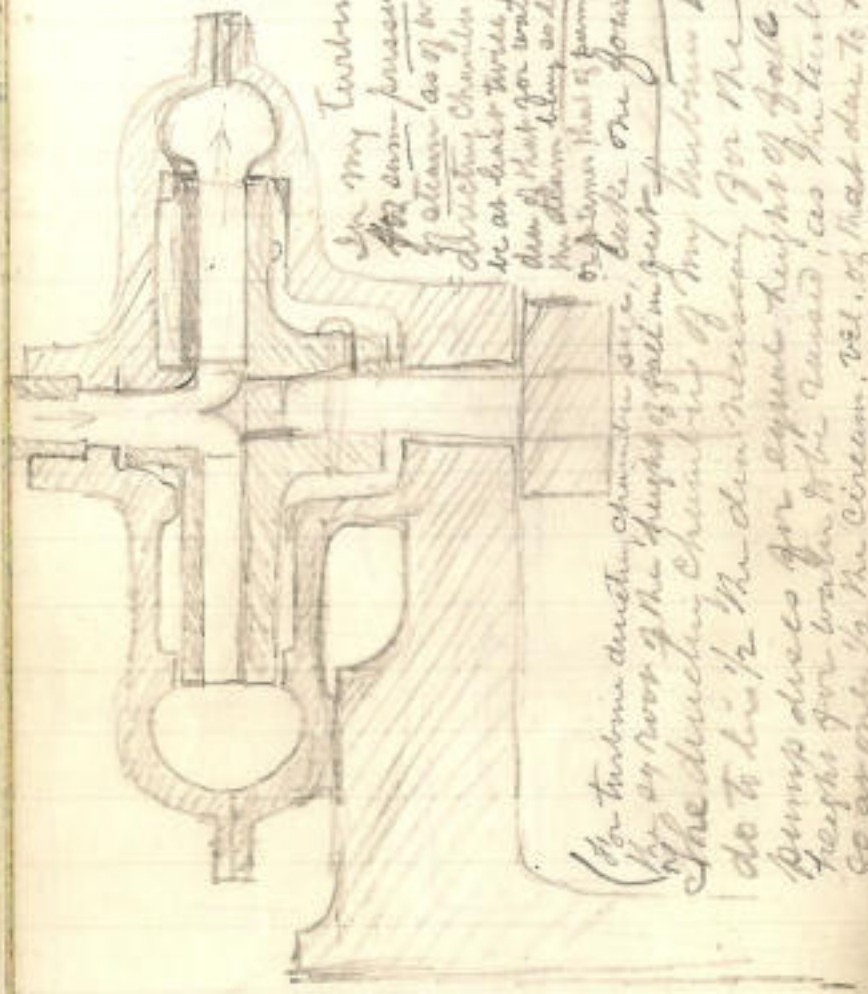


The Davidson-McGuire Patent Tea Packer

Davidson & Co Makers Sirocco Engineering Works Belfast


Drive by belting
Clasp of door





In my Turbines for sum pressure of steam as of water, directing chamber sh^d be at least twice the dia of that for water the steam being so light or perhaps that of pump disc

(For turbine directing chamber size, take one fourth the sq root of the height of fall in feet)

The directing chamber of my turbines will do to be 1/2 the dia necessary for the pump discs for equal height of fall to height for water to be raised, as the turbine go at only 1/2 the circum. vel. of that due to height of fall whereas pump must go full velocity and rather more to overcome friction.

half the sq root of the height in feet to which the water is to be thrown to be the dia of the pump disc in ft — disc running at about 300 rev

Thus to throw water 64 ft high. $\frac{\sqrt{64}}{2} = \frac{8}{2} = 4$ ft dia

" " " " 25 " " $\frac{\sqrt{25}}{2} = \frac{5}{2} = 2\frac{1}{2}$ ft dia

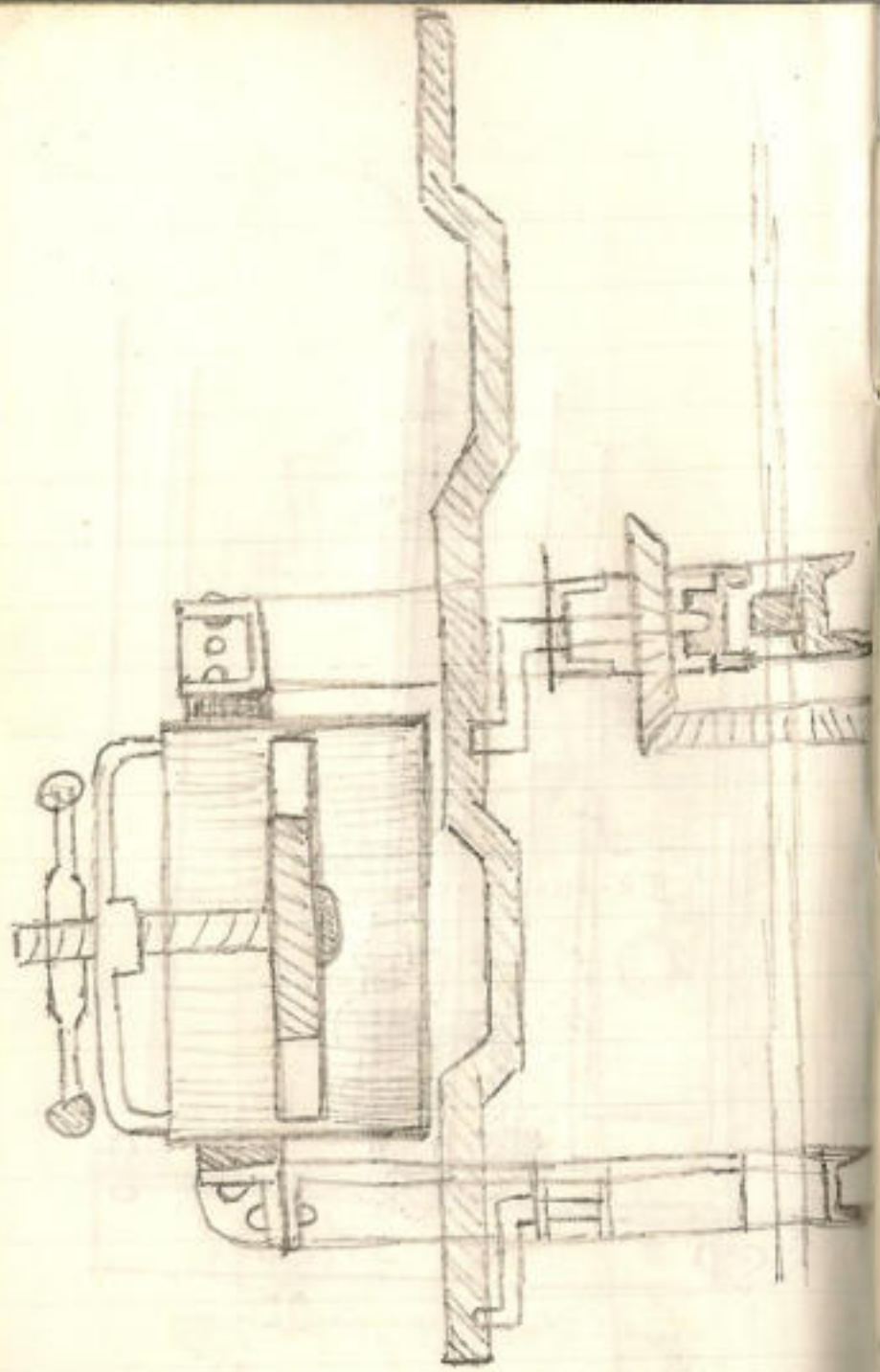
" " " " 16 " $\frac{\sqrt{16}}{2} = \frac{4}{2} = 2$ ft dia

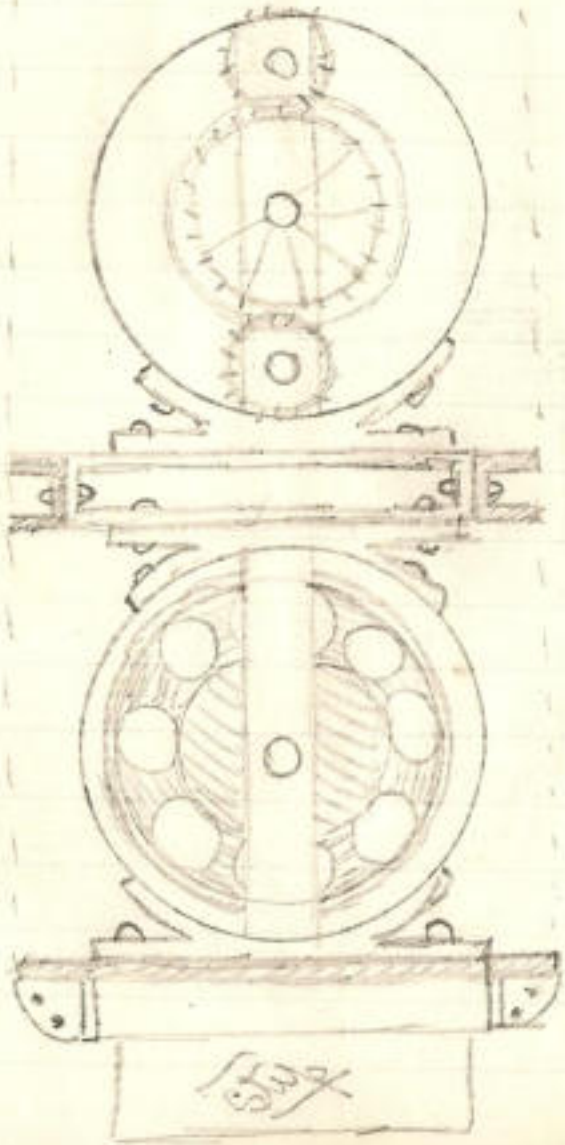
" " " " 9 " $\frac{\sqrt{9}}{2} = \frac{3}{2} = 1\frac{1}{2}$ ft dia

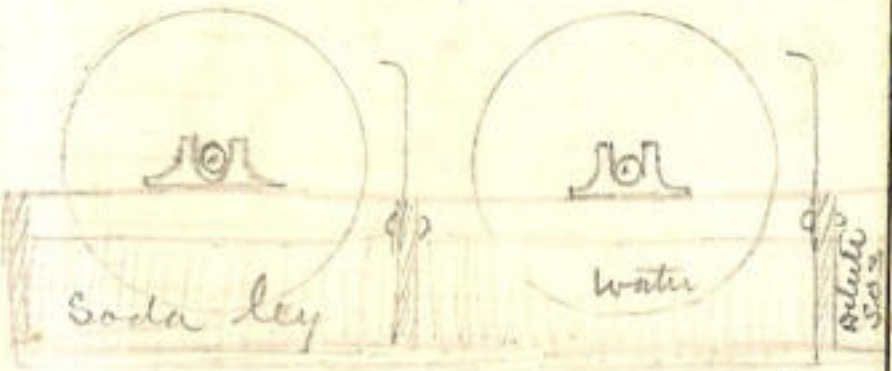
For a centrifugal pump — use 16 ducts, and their length sh^d be approximately 40 times their dia — and this will be pretty accurately attained by making the radius of the pump disc 32 dias of the ducts — this radius being the dia of the inner or convex side of the ducts —

The sum of the areas of the ducts to be same as the area of inlet pipe when reckoned as a square of its diameter — because when the contents have to pass through 16 ducts, each being only 1/16th the area of the whole, the total friction through these 16 ducts will balance their slightly increased area, in comparison with the circle of the inlet pipe — so for this purpose the inlet pipe circle may be reckoned as a square of its dia —

Divide this square into as many parts as there are to be of ducts (16) and the dia of these small squares is to be taken as dia of the ducts, which are to be laid off accordingly on a disc which is 64 dias of ducts — the inner points of these ducts will form a circle exactly 1/2 more in dia than inlet pipe no matter what the dia of the disc may be — If the disc is 64 dias of ducts it is 4 times the sum of their dias which is do for water — but for [illegible] it is 16 times their sum — [illegible] pressure to give heavy pressure blast — but [illegible] to be [illegible]





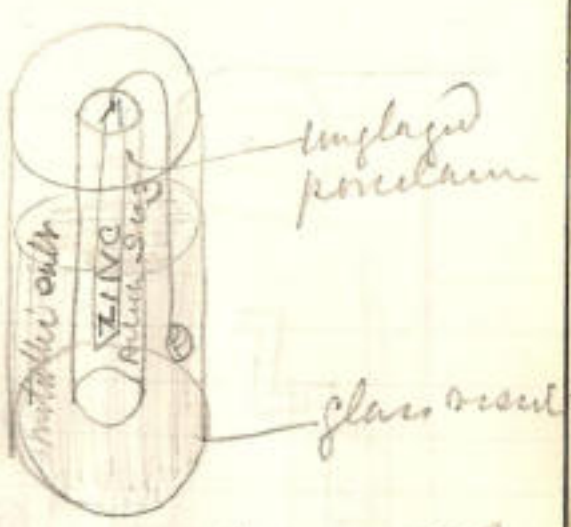


Wood box lead lined - 5 Compartments
Cylinders 16" dia 12" long
Ends of cast brass - Brass spindle
Perforated copper plate around
Cylinder - Sliding door in side
for filling & emptying —

A good copper bath
20 parts sulphate of Cu –
160 " water –

Which solution is mixed
with 50 parts neutral
tartrate of potash
dissolved in 650 parts
Caustic soda –
solution 1.12 sp. gr –

3 coats of berzyline
4 afterwards rub
with pulverised
charcoal –
Use Daniells Battery



Suspend a bag of copper
crystals in both to
maintain strength of
solution –

Oudrey process to prevent
iron articles being corroded
from the strength of the
acid of the metallic
salt bath instead of being
coated with the metal
Cover the articles with