Spin'ning Ma-chine. The Bryewater spin-
ing machine is remarkable as a continuous spin-
er in contradistinction to the intermittent work
of the mule.

The condenser bobbin containing the sliver, as in the
mule, is placed upon the top of the machine, and revolving,
delivers its contents to and upon the tops of a number of
small porcupines, arranged upon a slowly revolving shaft.
The porcupines, on receiving the roving, comb and draw the
fibers of the wool into parallel lines, delivering it in an at-
tenuated form to another part of the machine, composed of
two very small rollers fitted in a disk.

These rollers, one of which is fluted and the other covered
with rubber, constitute a pair of draft rollers, as in the or-
dinary mule, but are so small in size as to serve only for the
reception of the thread. The draft motion of these rollers
is obtained by the action of a pair of small toothed wheels,
that are covered from sight in the disk. From the great
amount of twist imparted to the thread in this movement,
and in which the proper degree of attenuation is obtained, a
much shorter fiber can be spun with less risk of breakages
than in the long stretch of the mule.

There has already been spun on this machine a material,
the waste of silk noils (that is, the noils of the noils), that
has hitherto been used only for upholstery purposes, etc.,
and which in the mule could not be spun into thread at all.
The thread on its delivery from the rollers carried in the
disk, is passed to the spindle, and wound upon tubes in
the form of a pin or cone, having received its complemental
amount of twist.

Any quantity of twist can be put in between the rollers
and the spindle, as the latter can be driven up to 7,000 or
5,000 revolutions per minute. The thread is wound upon
the spool by the needle flyer. In order to build a proper
cot from the yarn the traverse race differs from that found
in moving frame, threadle spinning frames, etc., in having
an additional movement. Besides the ordinary ascending
and descending movements of the traverse, there is progres-
sive ascent made every journey, equivalent to the growth of
the yarn cone from the deposit upon it of every layer of
yarn.