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The Stanley Coal Heading Machine.
-Mr. Stanley, of the Haunchwood Brick and
Tile Co., England, has invented a new coal
heading machine, which is at work both on the
bank and in the mine. This machine is made
to cut an annular groove around the face of the
heading, leaving a core which either falls or is
got off as the work proceeds. The machine can
cut a heading in about one fourth of the time
which would be occupied if the work was done
by hand labour. It will cut through the hardest
material, such as thin bands of ironstone, with-
out difficulty. Experiments are said to have
demonstrated in a satisfactory manner the utility
of the machine.

**The Most Ancient Tin Mine in the
World.**-The Great Work tin mine, West
Cornwall, which has recently been reopened, is
undoubtedly the most ancient mine in the
world. It is recorded that the Phœnicians
came here for tin, and the public records show
that the mine has been worked, with slight
intervals of cessation, for the past 300 years.
The value of the property is indicated by the
extent of the workings, upon which no less
than £390,024 has been expended, whilst the
ore produced realized on sale £628,706. Al-
though no fresh ground was opened tin of the
value of £100,000 and upwards has, during the
past 20 years, been obtained from the surface
and shallow workings. The contents of the
prospectus are interesting, showing, as they do,
what this property, which is not more than 180
fathoms in depth, has done. The lift is a mile
and three-quarters in length, on the course of
the lode, and in some places a mile in width,
embracing an area of 720 acres. Underground
the levels have been driven in the aggregate
about 30 miles.

The use of Steel Supports in Mining.
-In a paper recently read by Mr. A. L. Steu-
venson, M.E., before the North of England In-
stitute of Mining Engineers, it was stated that
the result of a trial on a large scale of steel
beams in the iron mines in the Cleveland dis-
trict was entirely favourable to their adoption
from the points of both economy and security.
In the mines in question the expenditure for
timber is about \$50,000 a year, even when not
working full time, and the average life of the
timber in consequence of dampness was not
more than two years. Out of nearly 200 tons
of steel now in use only one beam has failed,
and it is demonstrated clearly that in strength
the advantages gained where the roof is heavy
are marked, fewer pieces being required and a
much better and neater arrangement can be
effected with a clearer road, owing to the smaller
size and number of props. After an experience
of three and a half years the work seems to be
in perfectly good condition, so that permanence
is effected instead of frequent renewals. In-
cluding the packing material and all labour, the
average cost of six steel board end crossings was
£5 4s. 1d., for timber, or an increase of 36 per
cent. which increased cost is considered amply
compensated by the advantages gained

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Post for 1 cent for 4 oz. or up to 24 oz. in weight.
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