

## COAST DEFENSE.

## Conerote Forts and Big Quns

 The modern geacoast fort is a ba tery whose guns are protected in froand fank with enormous monoliths concrete, covered, in the sides exposed
to the fire, with sand enough to de
flect projectles before concrete, says the zogivering slag zine. Deep down in the interior
these huge masses of stone are plac the magazaines and operating rooms re
quired for the service of the batterios
They are simply fictal, to be sure. but as permanent a the everlasting hills. It is weird an caves, selntillating with the highest esources of science. men stand over
drawing board on a table and prac.
teally see and plot on a chart every movement and position of the ships gunners in the open such instruction Sor pornting therer guns as enable them
to make consecutive bullseyes on a carget 6,000 yards away or from group
of great twelve inch rifed mortars to make 47 per cent of hits with tolock
of projectiles on the deck of a mocin target anywhere within range.
It is vastly important that rooms be made as comfortable as pos.
sible for the stratned human titel lects working out their country's de rense within them. But to make then
comportable is a a itfinult problem. In
the United States the first modern bat teries were
exigency caused by the during a Sxian. But since thee completion
during the warm and humid month of summer and early fall their galreek with molsture. Water stands in
great beads upon the walls and cellgreat pools upon the foors, and they
are not safe places for etither human
pelnges To remeds the eril many expedien
have been tried have been tried and much valuable
experience gained. But the problem
is beset with dificulty.

## FALLS ONLY TO RISE.

 An Experiment Which Shows a Perpetual Motion Efffoct. A novel experiment in the demon-stration of perpetual motion is to be
performed simply. $A$ glass beaker about six inches high and four incheres
in diameter is filled with water to in diameter is nied with water tol
the heghto atoout four and a halit
Inches, and two and one-half to three ounces of commercial anilline are add
ed, whilech will sink to the bottom of
the vessel. The temperature of the beaker an
Its contents is now ratsed to 170 or 175 degrees Fahrenhieit by means of a
burner. When it
the anill be observed that
thill rise to the surface of the water, from which it will hang in
 ually a large e drop an inch or more in
diameeter detacles itself from the
mass and falls throush mass and falls through the water.
And now, the detached drop having
fallen to the bottom of the beaker. alien to the bottom of the beaker.
comes the surprisisng part of the ex-
periment. The fallen drop is rradually to rise to the surface, where
it joins the mas:s from which it preVlously broke away. At once another
drop commences to form and, having
become detached, falls and rises in the So long as the previous drop.
 tunues indefnit
man-Review.
Worked Both Ends.
Queens at their best are but women.
Sata Mary of Modena once in her days of exile, "It took all the jewers that
anl the goldsmiths could procure to decorate my crown." She was "pow-
dered" with gems, which Fountann
hanl And Queen Caroline, too, the wife
Aeorge in., used to allude to Lord Hervey's rather personal remark that eccumulated riches of the cety and suburbs could make th, for, besides norrow of the ladies of quallty at one end of the town, and on her petticoat
ail the diamonds she could hire of the jewelers at the other."

## The Polar Bear. The polar bear is is a pretty formidable brute. $A$ specimen of this species has

 brute. A specimen of this species hasbeen killed welghing 1,000 pounds and measuring yeariy tuirteen feet from
nose to tall. The strength of the polar
bear is beyond eeeling on the body of a we waste whane
afteen feet long and weighing at least irteen feet long and welghing at least
three tons The whane had beend ragg.
ged by the bear out of the water on to In, These Degenerate Days.
"Huh.,"
exclatmed the yardstick It moved rapidily over the bolt of THat's all right." retorted the bolt
of cloth; "Joure not a yard long.
olther"-

 you can match it tin some pums when



