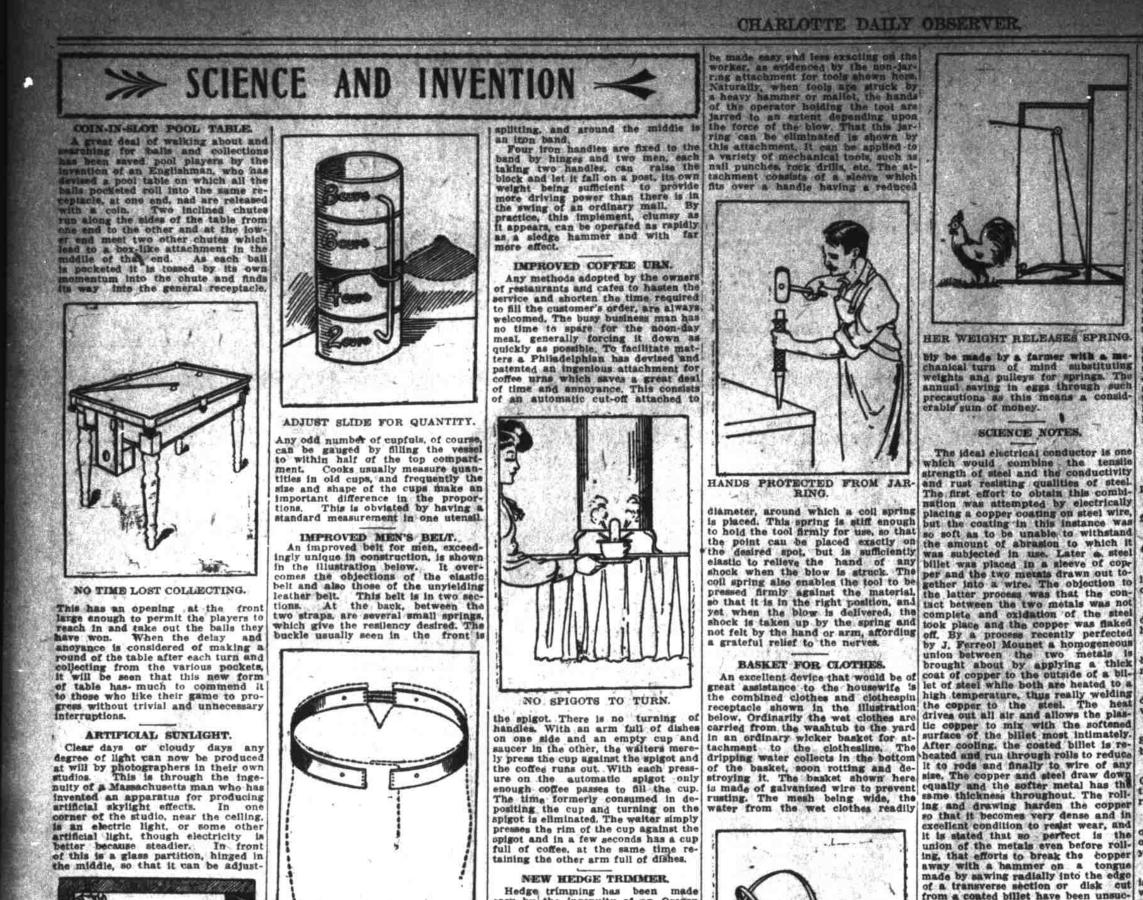
CHARLOTTE DAILY OBSERVER



NO TIME LOST COLLECTING.

This has an opening, at the front large enough to permit the players to reach in and take out the balls they have won. When the delay and anoyance is considered of making a round of the table after each turn and collecting from the various pockets, it will be seen that this new form of table has- much to commend it to those who like their game to pro gress without trivial and unnecessary Interruptions.

ARTIFICIAL SUNLIGHT.

Clear days or cloudy days any degree of light can now be produced at will by photographers in their own studios. This is through the ingenulty of a Massachusetts man who has invented an apparatus for producing artificial skylight effects. In one corner of the studio, near the ceiling, is an electric light, or some other artificial light, though electricity is better because steadler. In front of this is a glass partition, hinged in the middle, so that it can be adjust-In front



BELT WITH SPRINGS. missing. Instead the belt is attach-ed to the trousers by detachable fast-eners. In fact, this belt is not worn outside the trousers but inside. The advantage of the springs will be ap-parent. With the various motions of the body the springs expand or

SHOE-POLISHING APPARATUS. The days of the old-fashioned blacking brush for pollshing the shoes have passed. With the assistance of a couple of strips of soft cloth and



the spigot. There is no turning of handles. With an arm full of dishes on one side and an empty cup and saucer in the other, the waiters mere-ly press the cup against the apigot and coffee runs out. With each pressure on the automatic spigot only enough coffee passes to fill the cup. The time formerly consumed in depositing the cup and turning on the spigot is eliminated. The waiter simply presses the rim of the cup against the spigot and in a few seconds has a cup full of coffee, at the same time re-taining the other arm full of dishes.

Hedge trimming has been made easy by the ingenuity of an Oregon man, who has devised a machine that will cut as many branches as a dozen men working by hand at once; will cut them straight and will cut them without any difficulty. The machine con-sists of a largo number of teeth set in a row and all operated by the same shaft, which is turned by a handle. Their effect is that of so many pairs of shears working in the same line side by side. The device is fastened to the operator's body by a harness so that it sets firmly, and while he guides the knives with his left hand,



made by sawing radially into the edge of a transverse section or disk cut

from a conted billet have been unsuc-

A project is under consideration which contempites the improvement of the River Rhone, so that the city of Lyons will be restored to the posi-tion of importance it once held as an inland port, and the establishment of

inland port, and the establishment of a great power plant to supply the city of Paris. At present, although the riv-er is navigable in a direction from Lyons to the sea, it is only navigable upstream as far as Seyessel, so that water communication with the Lake of Geneva is impracticable. A Paris company has made proposals to the French government for the construc-tion of a barrage across Rhone below Bellegrade, forming above stream a reach of 14 miles to the lake and to nearly \$1,000,000,000, enginet a lit-reach of 14 miles to the lake and often appears at a great disad-atismal failure. It did plenty of busi-ness, but lost money. The sotal capacity of the streams of switzerhand is estimated at one mil-bion horse-pawer, one-quarter of which is availed of at present. Trade of the United States with its American nsighbors in 1907 amounted to nearly \$1,000,000,000, enginet a lit-Ready money is scarce and to be got

show almost no magnetic influences, but has electric and Inermal conduc-tivity is about 35 per cent. of that of pure copper. Its color is allowery while in contrast to the graytsh tint of alumninum. Magnetics, -tike pure aluminum, can be case in a liquid condition, the castings machin-ing about the same as brass and the machine surface possessing a mirror-like smoothness and silvery color. Cast in dry sand the usual quality of magnetic per square inch, and a shrinkage of about 3 3-4 per cent. In lathe work the tool speed can be twice as great as that used on alumi-num. Some afloys of magneticm rates of aluminum in this respect. In view of the very rapid develop-ment and progress of astial naviga-tion, it is proposed to establish a sec-tion, at the Boyal Polytechnic School of Naples, in which young engineers shall be trained in all that refers to the problems of flight, so far as it is know and the row. but he electric and thermal of

PROGRESS OF THE DAY.

The life of a fox'is 15 years.

The proportion of left-handed peo Hollow copper rods have been found to be the best lightning rods.

England eats between \$0,000 and 49,000 tortolses every year.

Under ordinary circumstances, the life of a wooden boat is four time that of steel.

The average age of persons who die by accident is thirty-five and a half years.

Soldiers of Berlin built a postoon bridge across the river Spree in 40 minutes recently.

The most approved design of storm door construction represents in in-vestment of no less than \$2,400.

The famous Lachine Rapids of the St. Lawrence are to be spanned by a bridge and the channel widened.

Condemned to death, a prisoner in Greece is kept in confinement for two years before the sentence is car-ried out.

A \$40,000 wireless telegraph plant is being erected at Newport, which will have a working radius of 1,250 miles.

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days the Winnipey muscles by a rew days the Winnipey muscling of in-British Association for the Advance-inent of Science, which will open or August 35th, 1962.

Within the past few years the agi-tion for hard roads has nearly need in the Frairle States and com-ident with such subsistence, increascreased in the Prairie States, and, com-oldent with such subsistence, increase ed attention has been given to earth made. When the hard road agitation was actively going on. there was lit-tice or no demand in the farmers' insti-tutes for articles or discussions on road topics; but recently there has been a large demand for information concerning the care of earth roads. An anthority on this subject says: Unless a community is willing and able to maintain the sarth roads in a rea-sonably good condition, it is useless to expect that it will be willing or able to support a high-class wagon road; and therefore the dimenination of construction and care of earth roads is politically, economically and physical-ly-the-first atep toward a better form of construction.

of construction. The the use of a new place of ma-for the sath-bip refine of a portion of the City of London is now reduced to material having the appearance and particular and and a post output of the refuse is feel into a hop-per and can be passed through the manipulator at the rate of four to buckets are picked out of the re-twise by hand, and any obstinate metrial which cannot be reduced by the ham-mers is automatically ejected from the marking the dowing in a good dressing of this material Briquettes made of this material mixed with tar in pro-portions of 21.8 gallons of have to the burned in a boiler furnace without true of pulverised refuse have been burned in a boiler furnace without burned in a boiler furnace without burned in a boiler furnace without burned in a more the sector of the re-burned in a more the sector of the sector **MOUNTAINEERS**.

MOUNTAINEERS.

The Pioneer Conditions of Life in the Appalachians, Berea Quarterly.

Take the conditions of country life mywhere and intensify them many The coffee production of the islands of Java and Sumatra, in 1967, was only about haif that of the previous scented atmosphere of the Blue Ridge degrees and you will have mountain and the great Smoky mountains. The mountaineer is a colonial survival, with all the pride and self-respect which belongs to a landholder; and his lack of worldly superfluities, rath-The cost of the proposed electric er than otherwise, contributes to his noble independence of spirit. But all this must be found out by sympathetic An attempt to establish a municipal brewery in Berlin resulted in a dismal failure. It did plenty of busines, but lost money. The total capacity of the streams of Switzerland is estimated at one milion horse-pawer, one-quarter of which is availed of at present.

NEW HEDGE TRIMMER.

NO SPIGOTS TO TURN.

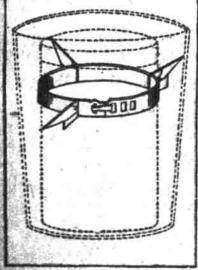
CAN REGULATE RAYS.

ed to vary the angle at which the light strikes it.

In front of this is a series screens. By changing the angle of the partition and adding or removing screens, almost any light can be produced, from the glare of bright sun-light to the shadow of a cloudy day. The illustration shows an electric light bulb, with reflector, so arranged that it can be raised or lowered on cords. the partition and increases the possibilities of the apparatus.

FOR ICE-CREAM CANS.

When ice cream is mentioned the interest of some eighty millions of people in the United States is arous-ed. Therefore, the Iowan who ined. Therefore, the lowan who incream from upsetting in the salty ice in may be looked upon as a benefac-tor of the race. This device is a

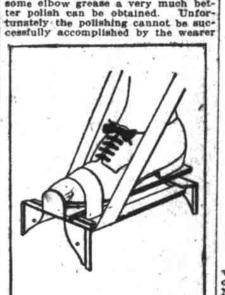


HOLDS CAN IN PLACE.

stal band, provided with a hook and slots so that it can be nited around cans of various sizes. From which spurs ere pivotally adjusted, ten the can is placed in the buck-Then the can is placed in the buck-i, the spurs engage the sides of the sitter and hold the can in place. ivoted as they are, the spurs adjust tempeives to the circumference of as bucket. Many a quart of ica-ream has been spoiled from the can pasting or being folied about so such that the lid has come loose nd the selt water has leaked in and inted the contents. All hall to the talignam from Iowa.

HANDY FOR COOKS.

HANDY FOR COOKS. Housewives and cooks have an own man to thank for a measuring invice which emables them to dole at a many as eight cupfuls of in-redients at once and feel sure that he anionnt is accurately measured he device is a cylinder of generous incumfarence, divided into four com-mitments, each of which has the ca-active of two toneups. The cylinder as allts in it at these points and long one side is a rod, to which a in martine is an attached. This allde as be moved to any part of the rod of internet in any of the meas, thus and internet in any of the meas, thus



relax as required.

buckle usually seen in the front is

HOUSEHOLD SHOE POLISHER.

of the shoes. The work must be done by a second person, unless an appa?atus similar to the one shown here is employed. A glance at the illustration will show how easily and quickly the polishing can be done. Many a dime can be saved with the aid of this apparatus, which would aid of this apparatus, which would pay for the cost in a short time. In this apparatus there is a platform upon which to rest the foot. At each side are rollers over which the polishing cloth moves, an abutment at the ends preventing the cloth from extending beyond the ends. Being clean and sightly, this polishing ma-chine would make a welcome addition to any household.

NEW KIND OF MALL.

For the purpose of driving posts into the ground, a mail invented by an Arkansas man will be found unusually efficient. It takes two men to operate it, but it does the work of more than two, for it not only



TAKES TWO TO WORK IT.

drives the posts more rapidly, but finds no obstanie in hard ground. The mail consists of a tapering block, larger at its bottom than at its top, and of heavy, hard wood. On the m is an iron p



