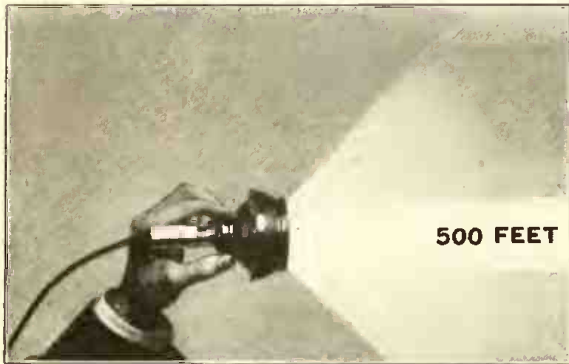


NEW AUTO HEAD-LIGHT.

In this new auto lamp here illustrated, the manufacturers have designed an exceptionally powerful projector of compact dimensions, that is capable of projecting not only a projected main beam but also a non-glare general diffused illumination.



A Clever Auto Headlight Which Throws a Powerful Concentrated Center Beam of Light 500 Feet; the Outer Rays Are Non-Glaring.

As we analyze lamp devices, say its inventors, we find that as it appears to the eye there are two sources of glare, one the filament itself and the other the reflector surface. The inventors argue that coloring the light does not enhance the visibility with reduced glare when applied to a unit source. Neither do they believe in the possibility of prismatical deflection nor that a parabola can have an optically correct relation to a multitude of small prest lenses with a conglomeration of axial alignments and focuses. Therefore the possibilities in glare reduction and still possessing light projection are to minimize the glare due to direct visibility of the light source and to form a main reflector of least aberation and well concealed from the direct visibility.

In this new lamp an attempt has been made to carry out this idea with precision. The light source itself is embraced to the angle of 105 degrees with a spherical curve corrected for aberation and beyond the aperture of the main reflector we have an annulus or spherical curve whose geometrical focus is at an offset as shown in the illustration and therefore the light coming from the filament onto this annulus is not returned on itself but at a distance coinciding with that angle that the frontal screen intercepts. This frontal screen is translucent and light coming from the filament will partly illuminate the same and light coming from the annulus impinges on

being slightly beyond the focal point of the main reflector. It also acts as a source of illumination in conjunction with the spherical reflector. The result is a highly efficient projected beam augmented by non-glare diffused illumination.

The inventors have also found that the critical angle reflection for metal reflectors takes place at 52½ degrees. That is whenever a reflector is made to embrace a light source beyond 105 degrees the resultant increase of light flux is a positive detriment to visibility at a distance.

WHEN "UNCLE SAM" TAPS THE WINDOW—YOU LOOK!

This window attraction device is operated by an electric motor and it can be attached to any electric socket, therefore there is no necessity of disturbing your window display when starting or stopping the figure. Its life-like motion of rapping on the window, turning the head and pointing the finger toward the goods displayed, makes it one of the most attractive advertising novelties yet devised.



Rap! Rap! Rap! Goes Uncle Sam's Electric Fist Against the Show Window, and Next Thing You Know You are Buying a New Hat or Suit—or Perhaps a Bottle of Near-Beer.

"Uncle Sam's" clothing may be removed and either a "Santa Claus," "Policeman," or other suit substituted. The heads are interchangeable. It is thus possible to have three distinct characters making an entirely new attraction with each change. The figure stands 27 inches high.

ROME AND WASHINGTON EXCHANGE WIRELESS "TALK."

Direct radio communication between an Italian Government station and the Arlington station of the United States Navy has been established and is being used daily for communications passing between the two governments and between their diplomatic representatives and foreign offices.

The daily statements of the Italian War Office will be received by radio from Rome and issued here for publication in the United States.

NEW ELECTRIC SHAVELIGHT FOR SOLDIERS.

It throws a flood of light—not in the eyes, not into the mirror or around the room, but on the face, right where you need it.



For the Boys in the Trenches or in Camp, There is This New Electric Shavelight. It Carries Its Own Battery and the Lamp May Be Used Separately When Desired.

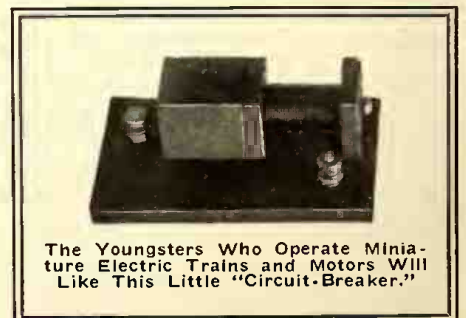
The soldier's days are busy. He must shave, usually at night. And it's not to be expected that his quarters—often an old barn, farm house, etc.—will be equip with "all the modern conveniences." He will, therefore, find this new military style electric light shaving outfit very serviceable.

The outfit consists of a high-grade safety razor, with six crucible steel blades; the electric light attachment that attaches to razor handle; stropper; battery that will supply light for one-hundred shaves; high quality aluminum trench mirror—all complete in a compact khaki case. The light attachment can be used on fountain pen or pencil for writing where light is dim or wanting—also for reading.

An electric apparatus has been devised for giving warning of impending air raids. It is claimed to be especially applicable to factories and public buildings. An electric resonator is placed on the roof, and on the sound of a given pitch being produced, the resonator causes a bell to ring in the building until it is stopt. It is said that large areas can be simultaneously and instantaneously warned.

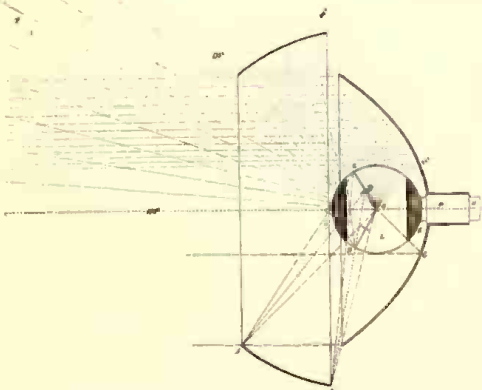
A TOY CIRCUIT-BREAKER.

The accompanying illustration shows a toy circuit-breaker for protecting all types of toy transformers against injury from short-circuits. It opens the circuit automatically, and can be closed by push-button only when the cause of trouble is removed. It is low in cost and will be found of interest and service to the junior engineers



The Youngsters Who Operate Miniature Electric Trains and Motors Will Like This Little "Circuit-Breaker."

and electricians who operate miniature electric railroads, motors and other various small electrical devices requiring some form of protective apparatus.



Arrangement of Translucent Frontal Screen and Parabolic Reflector to Realize a Strong Central Beam of Light, with Diffused Outer Rays.

the outer surface of the screen; the screen then becomes highly illuminous and is then a source of diffused illumination as well as