

or whatever Common Parlance names the selection.

You find the same psychology applied to the spasms of the undeveloped "Hun," peevish over the disarrangement in his Paris time-table, and the unaccountable hitch in his Picardy "negotiations."

The "doggy" in his case—the Nauen wireless-station—inspires this rapturous crooning:

"From the formidable towers of this establishment, the activities of which surpass all the fables of antiquity, waves are incessantly sent forth which acquaint the listening nations with everything that in our judgment they ought to know. This wondrous invisible ally, moreover, has constantly kept us acquainted with events which the enemy would gladly have withheld from us."*

Gosh! The Fables of Antiquity certainly have nothing on this blithe scree! Picture an innocent Nation cocking its ear to catch, amid a world of deception, the only clear, snappy, reliable TRUTH, "made in Germany" expressly for its enlightenment; and in the excitement being pilfered of a shy heart-throb—such as a Declaration of War! They say the Germans are always efficient, and this patent "diverter" of theirs proves it. It's a fine diverter. It would divert anybody.

Hist, while the histing is good! I have an idea.

You remember, a few years ago, how Mr. Carty, the Telephone Wizard, with his "Audions" and multifarious do-funnies, talked by wireless around half the world? Well, what's the matter with rigging 'em up again, and sending out a boom from the

*Cushovener Zeitung, quoted in Boston Transcript.

Hats off to Thomas Reed! Here is the germ of a wonderful idea—and a typical American idea, too. Not so long ago Mr. Carty of the American Telegraph and Telephone Company succeeded in making the human voice heard by Radio half way around the earth. The voice of the operator, stationed at Washington, was heard in Paris, France, and as far as Honolulu.

Mr. Reed suggests to transmit the metallic voice of old Liberty Bell by Radio thru the ether over this war-wrecked earth of ours, symbolizing the voice of Liberty in the most unique fashion possible. Yes, the German station at Nauen would hear the voice of Liberty Bell, too—Liberty ringing its way thru the ether, in *advance of the American Army*. The plan is simple and practically costless, as all the apparatus are on hand. What better date could be selected for the momentous event than July 4th, 1918. Let us hope that it will come off.

Readers, Wireless enthusiasts! When you see this in print write or telegraph to the Secretary of the Navy, the Hon. Josephus Daniels, Washington, D. C., asking him to send the voice of old Liberty Bell ringing over the battle-fields in France, on to Berlin, on July 4th. If 100,000 of you urge Washington, the great event will come off—a monument to the solidarity and enterprise of American Amateurs. Show this article to your local paper and urge it to reprint it at once, sending a clipping to us.

Now all together Amateurs! Show the nations that you are still on the map!

Liberty Bell, in Independence Hall?

And for a starter, what's the matter with mending our Bell, so we can boom it, good and proper? It's curious that while the "whole push," from song-writers up (or down) to financiers, are calling for the Liberty Bell to "ring again," they seem to mean the ringing figuratively, because it's cracked. But say, what does a crack amount to in any metal object, in these days of arc and acetylene welding? Science has moved on since we set the Bell away on a velvet cushion, and entered it up as "incurable." Broken cylinders and flywheels are being welded every day—huge things, beside which the Liberty Bell would look like a toy; mended, not merely to ring, but to resist high steam-pressure and enormous centrifugal force, and actually stronger afterward than before, since the original flaw has been eliminated.

Sure, it's the simplest thing in the world to fix our Bell, unless we prefer it broken and out of commission. But why should we—our Liberty isn't in that plight! Up to

a certain point, the Bell followed our history pretty closely. We founded our Freedom in 1776, and the Bell rang it for us. But there was a flaw in the casting of our Independence, which we couldn't see. Slavery, which worked and widened till it broke the Nation apart; while the Bell, too, developed an "interior strain," and cracked from it. We welded the Nation's fracture together, better than new, in the heat of the Civil War—but right there, the Bell stopt accompanying history. Any reason why it shouldn't catch up again, now that we're setting our Liberty to the biggest task of all?

I sure wish that old Bell was fixt, and Mr. Carty's rinktums were working

again! I'd like to have America designate a certain appropriate moment, when all radio traffic should stop, and for one whole minute the ether, everywhere around the world, should hum with "Liberty Vibrations" alone.

Anyway, for the "Hun," up there in the "formidable tower of his establishment" it would be a reminder of what Pioneer Peoples do to the Pests of the earth. He's had examples, in "Pats" and "Anzacs"—I name 'em with respect. What with Indians and bears, rattlesnakes, bad-men, gipsy-moths and Trusts (to mention only a few of our Nearest and Dearest) we're so accustomed to swatting "varmints," that even a Central Power or two come all in the day's work. With an "Ah there, neighbor!" for the new arrival, we shoulder our eradicating-tools, and, whistling and busy, get after him.

Well, perhaps my scheme is only a pipe-dream! But "you know me, Al"—while my hopes are small of entertaining an angel unawares, I never could turn away a needy pipe-dream from the door!

ELECTRIC LIGHTNING RECORDER HELPS OUR FLYERS

One of the most important things that military aviators wish to know about the air before venturing on long trips of several hundred miles, is the whereabouts of thunder storms. At all well appointed training camps, various meteorological data are recorded, such as changes in the barometer, wind velocity, etc.

The highly sensitive electrical recorder here illustrated makes a mark from a pen on a slowly revolving paper chart, secured to a clockwork driven drum, for every lightning flash occurring in the vicinity. In fact, so sensitive is this instrument that electric storms more than 200 miles away have been accurately recorded on it. It operates in a similar manner to wireless receiving sets of early type, which operated with a coherer or metal filings tube which responded to the electric waves.

The filings coherer is so sensitive that it will respond to all such unusual atmospheric disturbances, and thus lends itself well to such purposes as this. The filings are minute grains of nickel and silver or steel silver, a ratio of 90 per cent nickel or steel to 10 per cent silver is commonly used.

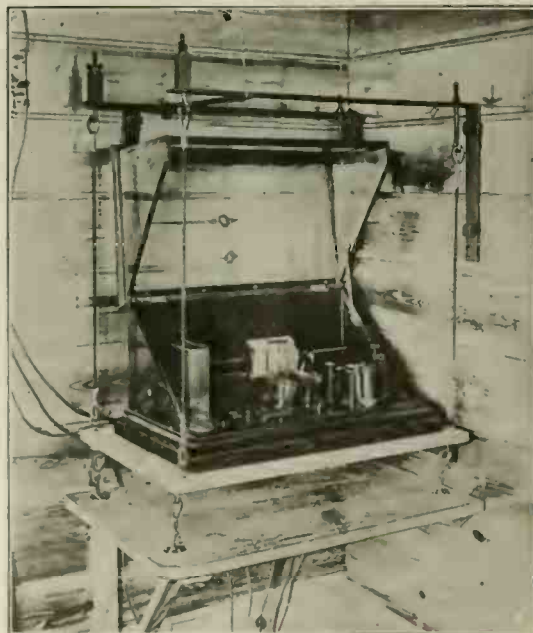


Photo © by Underwood & Underwood
Electric Thunder Storm Recorder Which Indicates Lightning 200 Miles Away.

A CENTURY OF LIGHT.

1815 to 1855, sperm oil and candles, average home used 25 candle hours per night, or 9,000 per annum—cost \$22.

1855 to 1865, kerosene introduced with 50% more light, same cost of \$22.

1865 to 1875, kerosene and gas—average household used 20,000 to 38,000 candle hours—cost \$23 to \$34.

1875 to 1885, kerosene reduced to 22c a gallon, gas to \$2 per 1,000 cu. ft.; average family used 76,000 c. p. hours per year—cost \$30.

1885 to 1905, kerosene disappearing—electricity and Welsbach gas mantle coming in, 200,000 c. p. hours average family used per year—cost \$20.

1905 to 1915, average gas c. p. hours, 200,000. Average electric c. p. hours, 123,000 (due to saving thru switches)—cost \$15.

Maximum light now of average families, 360 candles, or about 18 times that of a century ago.

With increase of 1700 per cent in amount of night lighting, reduction in cost of year's lighting is about 70%. Exprest another way, the cost of lighting per unit candle hour is less than 3% of what it was in the first half of the period.