



John Bull: "A few more of these stepping-stones and we'll get there!" -From the Passing Show.

PHOTOGRAPHS NOW SENT BY WIRELESS

Experiments Under U. S. Navy Auspices Show Practical Results.

(Science Service.)

Washington, Feb. 2.—Strange but regular notes that have puzzled Washington radio fans almost daily for the last month were explained when it became known that photographs are being sent by radio from naval air station NAF, at Anacostia, to the laboratory of C. Francis Jenkins on Connecticut avenue.

Likenesses of President Harding, Secretary of the Navy Denby, several feminine portraits, and written messages have been transferred by the Jenkins apparatus through the ether and these have produced the rhythmic and somewhat musical sounds that have been heard on the NAF wave length of 422 meters. The listeners-in have been "hearing" photographs.

The method is relatively simple and it is predicted that the results will be of practical use. Transmission of photographs, black and white drawings, sketches or handwriting by radio or by land wires can be accomplished. The Navy Department is co-operating with Mr. Jenkins in the first practical trials of his method by allowing him to utilize the high-power radio telephone transmitter of NAF. At present pictures and photographs are being transmitted over a distance of about five miles from the city, but Mr. Jenkins is planning to give a demonstration from Washington to some distant city.

The Jenkins apparatus has the effect of dividing an image of the photographic negative being sent into many closely spaced horizontal lines. These lines, point by point, are transmitted to variations in electrical intensity by a process analogous in some respects to the way in which telephone transmissions convert sound into electrical impulses. These variations represent the photograph as broadcast in the radio telephone song or talk, and when received they are changed back into light variations and built up into the photograph again, line by line.

The novel features of the Jenkins apparatus are prism lens disks which, in the sending set, impress the picture point by point upon a light sensitive cell, and in the receiving set similarly impress the variations of light point by point on a photographic plate. These disks are really crown prisms near their circumferences and the angle of the prism constantly changes so that a beam of light passing through the prismatic portion is thrown from one side to the other, as a disk revolves on its axis.

The Apparatus Required. The sending apparatus consists of an ordinary stroboscopic projector and the prismatic disk. These impress the projected photograph point by point upon a substance that has the power of changing light variations into electrical variations. This varying current is amplified and transformed and then broadcast.

In the radio picture receiver, the incoming current moves a very small mirror, the amplitude of this movement being controlled by whether the current represents a light or dark place in the picture.

Dallaids Reduction Sale 25% OFF EVERYTHING NOW

picture being transmitted. A beam of light, broken by the shadow of a human hair, is reflected by this mirror so as to pass through a slit and be impressed upon the photographic plate by the prismatic disk. When black is being sent the reflected shadow of the hair completely excludes the light from the plate, but when a light portion of the photograph is being received the mirror vibrates and lets through sufficient light to reproduce the tone of the original photograph.

Mr. Jenkins declares that his method is the first to satisfactorily transmit a flat photograph in adequate detail and shading. The photographs received by radio have good detail and a finish that is almost as desirable as artistic.

Next Mr. Jenkins intends sending from an actual photographic print instead of employing a photographic negative, by using a reflectoscope such as is used in producing stereoscopic views directly from objects. In the same way he hopes to transmit actual still scenes.

Then he looks forward to motion pictures. A photograph is now transmitted in about six minutes. If a photograph could be sent to one-sixteenth of a second, Mr. Jenkins explained, motion through space will have been achieved. When the eyes see sixteen pictures a second as it does at the ordinary motion picture performance, then the motion appears continuous.

With sixteen radiated or wired scenes a second, seeing by radio and wire will be as real as a telephone conversation.

BISMARCK'S WORDS. (New York Times.) To the Editor of the New York Times: In your recent editorial "A Language Which Germany Understands," you quote the following statement by Bismarck, early in 1871, "We should from time to time send a flying column wherever they show themselves recalcitrant, and shoot, hang and burn."

If this is true, it would brand Bismarck as one of the most inhuman statesmen. I have relied upon your accuracy and repeated this statement in an argument, but its truth has been challenged, and I therefore ask of you to bring proof that you have quoted Bismarck truthfully.

P. BERTUCH. South Orange, N. J., Jan. 12, 1923. (The citation was taken from the "Bismarck" of Dr. Morris Busch, Vol. I, p. 476—Ed. Times.)

1,500,000 CHILD LABORERS IN U. S.

Secretary of Labor Davis, in Annual Report, Recommends Amendment to the Constitution.

Washington, Feb. 2.—An amendment to the Federal Constitution to enable Congress to fix standards that would take a million and a half boys and girls of school age out of the drudgery of mine and mill, field and factory, recommended by Secretary of Labor James J. Davis in his annual report. Secretary Davis declared that every instinct of humanity prompted the resolution of child labor.

"The subject of child labor," says the Secretary, "has been given very careful attention in the last year and a number of important surveys have been made to ascertain the extent of this unhealthy economic factor. The reports of the Bureau of the Census would indicate that more than a million children between the ages of 10 and 16 are engaged in the industry. The details reveal that children between 10 and 15 years of age are engaged in the sugar beet fields, the cotton fields and the onion fields of the land. Apparently the usual method is to employ whole families by contractors to work in these fields. More than 80,000 children are employed as spinning girls and doffer boys in textile factories. Children in the cotton mills, it is reported, work sixty hours a week, and those over 14½ years old work nights. Thousands do industrial home work stringing beads, pulling threads from lacework, etc.

"The condition of children in industry under supervision of parents and near relatives seems to have gone on without interruption while the national child labor laws were in force. It is doubtful whether any legislation of the type heretofore enacted or thus far contemplated would reach this evil, or children working in agricultural pursuits or in the homes under the supervision of their parents or close relatives.

"Under the previous Administration the custom grew up of suspending the operation of the immigration laws on the Mexican border to permit the importation of Mexican children for the purpose of working in cotton fields and sugar beet fields. After carefully reviewing the whole situation, I reached the conclusion that this was not only unauthorized by law but was really an attempt to circumvent the child labor law. It is true that these industries are really suffering for help, but it seemed to me improper to permit the importation of so-called cheap labor in the form of the labor of women and children from another country.

"I feel that it is a practical and sound way of eliminating child labor when we create conditions which will require that adults or people above the age of 16 shall do this work.

"A complete survey would indicate that 1,600,000 American children are now the victims of premature toil in the mines and mills and factories and homes of this country. This is all wrong. The great problem of our time is the welfare of the nation. Our children are entitled to a life that will conserve their strength while young and that will educate their minds and hearts so that they may be efficient when they grow to maturity.

"Forty-two States out of the forty-eight have adopted so-called child-labor laws, some of which are highly developed and rigidly enforced. Others are rather rudimentary and indifferently enforced. The manufacturer in the State where children under the age of sixteen years are not permitted to work at all and where those above sixteen and below eighteen are permitted only to work under certain restricted conditions and regulations complain that they are subject to unfair competition by competitors who manufacture in States where there are no laws on the subject of child labor or where the laws are not comprehensive and practically not enforced. A remedy must be found to meet this condition.

There are those who advocate uniform child-labor laws by the States, believing that it is a subject which should be dealt with only by the States. On the other hand, there are those who advocate the adoption of an amendment to the Federal Constitution giving Congress exclusive power to deal with the subject. Regardless of which method may be adopted, it is urged that some method should be adopted which will forever blot from the recollection of this

BETTER TEA can be obtained only by using "SALADA" TEA

UNEXCELLED FOR FLAVOUR. STANDARD PRICE.

Put me in your home

My greatest wish is to be in every woman's kitchen and in every smoker's pocket.

I know that where I am used there can be no danger. My leaves will not fall off, and, when I am out, I am really out—I do not glow.

I am long enough to light gas stoves and ranges without burning fingers. My slow, generous flame lights pipes well and evenly.

Though I am good-looking I am a "homely" match because I am the right match for the home.

Demand me. Try me and prove me.

MAPLE LEAF MATCHES Different and better

Well worth 15¢ a box

Also Pocket Size, 2 for 5c.

THE CANADIAN MATCH CO. LIMITED, MONTREAL

BISHOP HUGHES SCORES BUTLER

Sarcastic in Arraignment of Foes of Prohibition and Volstead Act—"No Likelihood of Amendment Repeal."

(Boston Herald.) Scathingly denouncing those who declare that the 18th amendment cannot be enforced, and charging that such persons do not want prohibition enforcement, Bishop Edwin H. Hughes last evening held spellbound an audience which filled the Park street church with a biting sarcastic arraignment of the foes of prohibition and the Volstead act.

His principal attack was on Dr. Nicholas Murray Butler, president of Columbia University, and his effort was largely bent toward refuting Dr. Butler's statements regarding the unenforceability of the Volstead act made in an address at Columbus, O., recently.

Ridicules Butler. Ridiculing Dr. Butler's stand and carrying it to what he designated as the logical conclusion to his arguments, Bishop Hughes asked why, if it were true that the 18th amendment should be repealed because it was violated, all law should not be done away with for the same reason. He took up the statements of Dr. Butler that the foundation of lawlessness was laid in 1890, the year of rapid extension of the elective system in colleges, and declared that if the elective system had caused lawlessness, then the grandfather of this statute-defying movement for the elective system, Dr. Butler's address at a little utterance. Says in a general reference to "sound education" and "true religion" the quoted part of the address offers no constructive suggestion. He links the 10th and 18th amendments as partners in producing lawlessness. He well knew the vanity of such a course. Though the Democratic party has been so largely the party of the South, it would not be silly enough to advocate the repeal of the 18th amendment.

No Chance of Repeal. "No political dreamer sees any likelihood of the repeal of the 18th amendment. It took thirty-six states to put that amendment into the constitution.

It would take only thirteen to keep it there. Every supreme court decision of consequence favors the law. The 18th amendment is as secure in the constitutional document as is the 10th or the 16th or the 17th. All talk of "unamendable" constitution is the merest moonshine; as silly as if it came from a brain muddled by another kind of moonshine! It would be far more difficult to "unamend" the 18th amendment than it would be to unscramble an egg.

Continuing his address, Bishop Hughes declared that, while the lower and middle classes of Americans had been reached by prohibition and were more sober today than ever before, some members of the upper classes have not yet been touched and hold themselves above the law. Those persons, he said, are the ones who sow the

seeds of lawlessness and should not complain if, at a later date, their factories are burned by lawless mobs.

Mentioning the stand taken by Samuel Gompers on wine and beer, he declared that Gompers would never be able to lead the sober working man by the nose to any brewery he wants to open.

The meeting was held under the auspices of the Churchmen's Union of Greater Boston, and Harold D. Wilson, former chief prohibition enforcement agent in Massachusetts, and president of the union presided and introduced the speakers. It was voted to adopt a resolution calling for the appointment of law enforcement committees in each district of Greater Boston. A set of names drawn up by Gordon C. MacMaster, treasurer of the union, was also voted on favorably.

Conditions are identical in Canada and all civilized countries where the same foolish food habits prevail.

The food mistakes of civilization and therefore of us Canadians—of me and mine—of you and yours—are too much "denatured" flour, refined cereals, "access acid," white flour, refined cereals, meats, and sweets; too little whole grain cereals, milk, eggs, leafy vegetables and fruits, the immemorial natural food of the human race.

McCullum has demonstrated that a combination of whole grains is even superior to one whole grain—because bet-

Children Love It Shirriffs Marmalade

Shirriff's Marmalade—a healthful and appetizing treat. Absolutely pure, imported Seville Oranges and pure cane sugar only.

Cheaper than jam or butter. Why not a trial jar or tin from your grocer?

"Let the Clark Kitchens help you"

CLARK'S TOMATO KETCHUP Absolutely wholesome as well as delicious.

Fine ripe tomatoes with many savory spices are joined in this exquisite recipe. Juveniles as well as grown ups enjoy the added relish Clark's Tomato Ketchup gives to meats, fish and omelets, etc.

Made in Canada, by Canadians using Canadian Farm Produce. W. CLARK LIMITED, MONTREAL. ESTABLISHED 1852 AT MONTREAL, P. Q. ST. JEAN, P. Q. AND HARROW, ONT.

It would take only thirteen to keep it there. Every supreme court decision of consequence favors the law. The 18th amendment is as secure in the constitutional document as is the 10th or the 16th or the 17th. All talk of "unamendable" constitution is the merest moonshine; as silly as if it came from a brain muddled by another kind of moonshine! It would be far more difficult to "unamend" the 18th amendment than it would be to unscramble an egg.

Continuing his address, Bishop Hughes declared that, while the lower and middle classes of Americans had been reached by prohibition and were more sober today than ever before, some members of the upper classes have not yet been touched and hold themselves above the law. Those persons, he said, are the ones who sow the

seeds of lawlessness and should not complain if, at a later date, their factories are burned by lawless mobs.

Mentioning the stand taken by Samuel Gompers on wine and beer, he declared that Gompers would never be able to lead the sober working man by the nose to any brewery he wants to open.

The meeting was held under the auspices of the Churchmen's Union of Greater Boston, and Harold D. Wilson, former chief prohibition enforcement agent in Massachusetts, and president of the union presided and introduced the speakers. It was voted to adopt a resolution calling for the appointment of law enforcement committees in each district of Greater Boston. A set of names drawn up by Gordon C. MacMaster, treasurer of the union, was also voted on favorably.

Conditions are identical in Canada and all civilized countries where the same foolish food habits prevail.

The food mistakes of civilization and therefore of us Canadians—of me and mine—of you and yours—are too much "denatured" flour, refined cereals, "access acid," white flour, refined cereals, meats, and sweets; too little whole grain cereals, milk, eggs, leafy vegetables and fruits, the immemorial natural food of the human race.

McCullum has demonstrated that a combination of whole grains is even superior to one whole grain—because bet-



When do you really "wake up" in the morning?

DO the golden morning hours find you fit and wide-awake, or do they find you tired and sleepy?

Tea and Coffee are a common cause of sleepless nights, which bring drowsy days with their usual train of neglected opportunities.

Why not get a new, firm grip on yourself, by leaving off tea and coffee for awhile, and drinking Instant Postum—a wholesome, delicious, mealtime beverage, with a fine, full-bodied flavor you will like.

You can enjoy it any time, day or night, without interference with nerves or digestion.

At Your Grocer's in Sealed, Air-tight Tins

Instant Postum FOR HEALTH "There's a Reason"

A generous sample tin of Instant Postum sent, postpaid, for 4c. in stamps. Write: Canadian Postum Cereal Co., Limited 45 Front St. E., Toronto, Ontario. Factory: Windsor, Ontario

Even though he wears gloves the modern yeggen can no longer prevent telltale evidences of his presence being left on the premises he robs. The French police have found a way to determine the identity of a criminal by an examination of the skin pores in any impression left behind.

This new advance in baffling law-breakers is called "poroscopy." The man to whom society is chiefly indebted for this development is Dr. Edmund Locard, director of the police laboratory at Lyons.

There is a great variation in the shape, size, position and number of the pores of the skin, so that even a fragmentary portion of the skin of the hand is a valuable clue.



Get Perfect Fountain Pen with Carter's Fountain Pen Ink

The ordinary tooth brush merely brushes the surfaces

Prophy-lac-tic really cleans between the teeth

Prophy-lac-tic Tooth Brush

THE tufted bristles reach between the teeth and into depressions caused by uneven or crooked teeth.

The curved handle makes it easy to brush the hard-to-reach places. Buy the Prophy-lac-tic Tooth Brush wherever tooth brushes are sold.

Prophy-lac-tic Tooth Brushes come in three sizes—adults, youths' and children's; and in three degrees of stiffness—hard, medium, and soft.

Always sold in the yellow box. Sold by all dealers in Canada. EVANS & CO., Limited 247 St. Paul St. West, Montreal. Sole Distributors

60,000 YOUNG AMERICANS DIE Each Year—From Old Age Diseases—Due Largely to Faulty Food

PROFESSOR McCOLLUM, of Johns Hopkins University, says these old age deaths, from diseases of the heart, blood vessels, kidneys, brain, digestive organs etc., have doubled in thirty years, and that younger persons are every year being attacked. McCollum also says 10% of all deaths are due to tuberculosis, and "this condition is largely due to faulty food."

Conditions are identical in Canada and all civilized countries where the same foolish food habits prevail.

The food mistakes of civilization and therefore of us Canadians—of me and mine—of you and yours—are too much "denatured" flour, refined cereals, "access acid," white flour, refined cereals, meats, and sweets; too little whole grain cereals, milk, eggs, leafy vegetables and fruits, the immemorial natural food of the human race.

McCullum has demonstrated that a combination of whole grains is even superior to one whole grain—because bet-

ter balanced. Roman Meal is the only combination of whole grains cereal known. It supplies the deficiencies of white flour, other cereals, meats and sweets. It was designed by a food scientist for that purpose. For this reason it nourishes better than meat, relieves most forms of indigestion and positively relieves all forms of constipation.

Because of its Flaxin, Roman Meal contains more bone making salts and protein than even milk, thus it is the best possible food for your child and for the nursing and expectant mother.

Buy Roman Meal at Grocers and try this Delightful Recipe to-day ROMAN MEAL BROSE-O 1-cup of steaming Hot Stir 1 rounded cup Roman Meal into 4 cups boiling salted water. Boil slowly for 10 minutes. Set in a cool place to jelly, or in ice chest. Serve cold with milk or cream and sugar, honey, preserves or jelly or bananas or berries, etc. (If hot foods are preferred, reheat in double boiler after it has jelled by standing over night.)

Add ROMAN MEAL to Your Daily Diet. ROMAN MEAL is the only balanced combination of whole grains—wheat, rye, Flaxin, and comminuted bran. It is a delicious family food, to be used as porridge, or baked into anything half and half with flour. By using Roman Meal in some way every day, with plenty of milk and some leafy vegetables (preferably uncooked) you provide your body—and the bodies of your children—with every element necessary to sturdy health and long life, and correct the "deficiencies" of modern "excess acid" and "deficiency" foods. Roman Meal aids digestion, positively relieves constipation.

With one exception the most economical cereal sold. ROMAN MEAL COMPANY, TORONTO.