

FILMS BIG HELP IN WINNING WAR

President Wilson Gives Credit to Industry For the Part It Played
President Wilson, before he sailed for France, penned the following: "The film has come to rank as a very high medium for the dissemination of public intelligence, and hence it speaks a universal language which lends itself importantly to the presentation of America's plans and purposes."

new art, says: "American manufacturers are now awakening to the value of the screen in popularizing their products, both here and abroad as the film speaks a universal language, as President Wilson recently wrote. "The public would be surprised to know how many proto-dramas are written and industrial products, because in the newest development of this side of picture making the direct command of purchase is no longer used, and the subtle idea is implanted that the possession of some household article or outdoor implement might have averted a disaster. A mere suggestion will often sink deeper in the human consciousness than any amount of hammering. Pictures need not take an intellectual bludgeon. The value of motion pictures is especially great in motion pictures, probably because motion pictures are so direct. The commercial educational picture must, above all things, be entertaining. It is ingenious and well edited from the point of view of the plot and the film editor, so as to please the movie patrons because of its entertaining features, as well as its informational and educational value. We are just beginning to appreciate that the romance of manufacture and commerce at last has a canvas big enough to paint it on the screen."

Careless Railroad Men Cause Troop Train Wreck

Washington, Jan. 15.—Blame for the wreck of a troop train on the St. Louis and San Francisco railroad, near Marshville, Mo., last September, in which twelve soldiers and three employes were killed and forty persons injured, was placed yesterday by the safety bureau of the Interstate Commerce Commission on a train dispatcher and engineer. The bureau said the wreck was caused by the failure of Division Dispatcher Chionister to transmit a train order to the operator of the Conway station and the failure of Engineer Douglas to observe the stop indications of an automatic signal.

Why Summer Is a Week Longer Than Winter

Curious Effects of the Elliptical Form of the Orbit of the Earth in the Variations in the Length of the Seasons in the Sun—But Long Winters Are Common
BY GARRETT F. SERVISS.

In a recent article I note you give the dates of the equinoxes as March 21 and September 23. This makes the spring and summer seven days longer than the autumn and winter. Will you please explain why this happens? Is the distance from the equator to Capricorn that much greater than to Cancer? Or is the north pole enough heavier than the south pole to cause the latter to swing the greater distance? Were the distances equal why should not the equinoxes be exactly half way between the equinoxes of the solstices and so divide the year into four equal parts? A. N. BABCOCK. The best way to understand the origin of the difference which you refer to is to consider the year as divided into two parts—a summer half and a winter half, the summer half of the year for the northern hemisphere, extending from the Vernal, or spring equinox to the Autumnal equinox, and the winter half from the autumnal equinox to the Vernal equinox. During the summer half the sun is north of the equator, and during the winter half it is south of the equator. Now, the dates of the equinoxes being respectively March 20 or 21 for the Vernal and September 23 or 24 for the Autumnal (the adjustments of the calendar make them slightly variable), it follows as you have noticed, that the summer half is a week longer than the winter half. How does this difference arise? Not, as you suggest, from any difference in distance of the two tropical circles from the equator, or from any wobbling of the axis of the earth, but from the elliptical form of the earth's orbit and from the varying speed of the earth in its orbit around the sun, the variation being a consequence of the elliptical form of the orbit. The length of the orbit is nearly 186,000,000 miles, and the sun, which occupies the point around which the earth revolves is situated in one of the foci of the ellipse, about 1,500,000 miles from the center measured along the major axis. If, then, a perpendicular to the major axis of the ellipse be drawn through the sun it will divide the orbit into two halves, one slightly larger than the other. But because the orbit is inclined to the plane of the equator the poles where it crosses that plane must lie on the perpendicular just described. Now, these points are the equinoxes, since the plane of the orbit is identical with that of the ecliptic, or the apparent yearly path of the sun which divides the orbit into two halves, and that being so, the earth has a shorter distance to travel in describing the half of its orbit which is nearest the sun than in describing the other half. This alone would make a slight difference of length between the winter and summer portions of the year. But the difference is greatly increased by the fact that the speed of the earth varies inversely with its distance from the sun, so that when it is in the part of its orbit which lies on that side of the center of the ellipse where the sun is, it must travel faster than when it is in the opposite part. In fact, when the earth is nearest the sun it travels about 18.7 miles per second, and when it is farthest from the sun about 18.3 miles per second. The motion of the earth being reflected in an apparent motion of the sun, the latter appears to travel about one minute of arc more than a degree per day when the earth is nearest, and about three minutes of arc less than a degree per day when the earth is farthest. One thing more is needed to complete the explanation. It so happens that at the present time (and not much change will occur for thousands of years) the earth is nearest the sun when winter prevails in the northern hemisphere, and farthest from the sun when summer prevails in the same hemisphere. The result of this state of affairs, combined with what has been said above, is that our winters are about seven days shorter than our summers, counting from the Autumnal to the Vernal equinox and summer from the Vernal to the Autumnal equinox. The week of difference between what is gained by the relative shortness of the half of the orbit nearest the sun and the increased speed of the earth in traversing that part of the orbit. In the southern hemisphere exactly the opposite state of affairs prevails, the winter belonging to the longer and the summer to the shorter half of the year, as divided by the equinoxes. But, owing to a combination of two causes, one the Precession of the equinoxes, which makes the poles of the earth's axis revolve around the poles of the ecliptic, in a period of about 26,000 years, and the other a revolution of the major axis of the earth's orbit, which takes place in a period of 108,000 years (in a direction opposite to the Precession), the present situation will be reversed in about 16,500 years, and then it will be the northern hemisphere that will have winter longer than summer, and the icy winds of February may blow a sharper frost over our drifted hills than any that historic generations have shrunk from.

residue in the fuel would be to plug up carburetors, Fuel Administration experts said. "In the same army laboratory tests of crystallization was found to set in at 18 degrees (Fahrenheit) and to be 'practically complete' at 15 degrees (Fahrenheit). Boiling started at 175 degrees (Fahrenheit) as against an initial boiling point of not more than 140 degrees for motor gasoline, indicating better starting qualities for motor gasoline. "The Bureau of Standards stated the results of tests in an aviation engine indicated that 'Liberty fuel,' compared with gasoline fulfilling the export specifications for aviation gasoline will, when consuming 10 per cent. greater weight of fuel per

horse-power hour, develop about 1 per cent. greater horse power. The spark plug used in 'Liberty fuel' showed a slightly greater carbon deposit than the plugs used in the run of export gasoline. "Information furnished the Fuel Administration by the Navy Department stated that a flight of forty minutes was made with the fuel and that 'no observations were made which show that the fuel would accomplish any other results than to operate the engine in a manner similar to the aviation fuel which had been used.' Arrangements were made, the Navy Department reported, for sufficient quantities of the fuel to make full tests, but the fuel was not supplied. "A letter from Assistant Secretary

of War Crowell said: "The situation has not reached such a stage that this office feels that any definite announcement can be made or that it can express a definite opinion as to the true merits of the fuel." Zionists to Organize to Push Claims For Jewish Commonwealth A large Zionist mass meeting will be held Sunday in the Board of Trade auditorium for the organization of the Zionist district of Harrisburg and for the election of officers. The meeting is called by the Zion-

ist organization of America, and the national representative of the organization, Isaac Carmel, of New York, is coming down for the purpose of addressing the meeting, and assisting in organizing the Zionist forces in Harrisburg. The Zionists of this country are petitioning the President of the United States that he should present to the Peace Conference the Jewish claim. Hundreds of signatures are obtained in Harrisburg for this petition. The following is the wording of the petition: "We, the undersigned citizens and residents of the United States of America, respectfully request you to place before the Peace Conference the aspirations and historic claims

of the Jewish people with regard to Palestine, to the end that in accordance with the British Government's declaration of November, 1917, endorsed by the Allied Governments, there shall be established such political, administrative and economic conditions in Palestine as will assure, under the trusteeship of Great Britain, acting on behalf of such League of Nations as may be formed the development of Palestine into a Jewish Commonwealth, it being clearly understood that nothing shall be done which may prejudice the civil and religious rights of existing non-Jewish communities in Palestine, or the rights and political status enjoyed by Jews in any other country."

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Does Your Husband Drink? Druggist Tells How to Cure The Liquor Habit at Home

Prescription Can Be Filled At Drug Store And Given Secretly J. Brown, a Cleveland man, was many years a confirmed drunkard. Friends and relatives despaired over redeeming him. His sister got the best medical men in hope in the hope that she might secure a cure which would cure him. Finally she was recommended in eminent chemist, who gave her a private formula (the same as appears below) and told her how to use it. She had it filled at the drug store and gave it to him secretly. The results were startling. In a few weeks he was completely cured. That over eight years ago and he has touched a drop since. He now takes a position of trust and is enthusiastic in his efforts to help others overcome the liquor habit. He has published the same formula which he gave him. Here is the prescription: To any first-class drug store and Prepared Tesum Powders, Drop one powder twice a day in coffee, tea or any liquid. It is harmless, tasteless, odorless and cannot be detected. Do not mix it with the knowledge of anyone. A lady who recently tried it on her husband reports: "My husband was on a spree when I got the powders and he usually stays drunk from three to four weeks at a time. After putting the powder in his coffee for four days he sobered up and has not taken a drink since and says he thinks the powder is forever. He also complained that whisky did not taste the same. I shall not tell him what did it, but I am grateful for this help and I shall recommend it whenever possible." Note: A leading druggist, when shown the above article, said: "Yes, Tesum is a very remarkable remedy for the liquor habit. It is harmless, wonderfully effective and is having an enormous sale. Advise everyone who wishes to destroy the liquor habit to give it a trial." It is sold in Harrisburg by J. Nelson Clark and other druggists.

The DOCTOR'S ADVICE by Dr. Lewis Baker
The questions answered below are general in character, the symptoms or diseases are given and the answers will apply in any case of similar nature. Those wishing further advice, free, may address Dr. Lewis Baker, College Bldg., College-Elwood streets, Dayton, Ohio, enclosing self-addressed stamped envelope for reply. Full name and address must be given, but only initials or fictitious names will be used in my answers. The prescriptions can be filled at any well-stocked drug store. Any druggist can order of wholesaler. Tonic medicine. Get a tube of Three-Grain Cadomene Tablets. Take as per directions and continue treatment several months if necessary. Miss Y. writes: "My hair is coming out, my scalp itches and dandruff is much annoying, and I want something to cure these conditions." Answer: For hair and scalp troubles I have never found anything to equal the beneficial results of a thorough treatment of Epsom, or Magnesium Sulphate, with a little Borax. It is cooling, cleansing and invigorating, and thousands now use it regularly as a hair and scalp tonic. "Sleepless" writes: "I am uneasy about my health. My kidneys and bladder are not well. Have spells of depression, do not sleep well, have to arise frequently. Urine bad odor, ankles puff very scant sometimes. My hair 'bags.' Please prescribe." Answer: Your symptoms indicate you need tonics to tone up the functions of kidneys and bladder. Obtain in sealed tubes Balmwort Tablets and take as per directions for several weeks, or until relief is experienced. NOTE: For many years Dr. Baker has been giving free advice and prescriptions to millions of people through the press columns, and doubtless has helped in relieving illness and distress more than any single individual in the world's history. Thousands have written him expressions of gratitude and confidence.

Liberty Fuel Far From Making Good

Washington.—"Liberty fuel," the new product which it had been promised by its inventors and promoters would ultimately replace gasoline as the principal fuel of combustion engines, has hardly reached a stage of development which will guarantee any such brilliant announcements sent over the country a month ago. The War Department, the Navy Department, the Bureau of Mines and Bureau of Standards have striven with the fuel, both in laboratory and practical tests in vehicles and aeroplanes, to ascertain how nearly the performances of the fuel meet the promises of the promoters. The result is disappointing, although it cannot yet be said that they are conclusive. The following review of findings of the Fuel Administration investigators was made public: "Tests made in the aeronautic laboratories of the United States Army and places at the disposal of the Fuel Administration resulted in information that the fuel was made up of approximately 65 per cent. of benzol, 25 to 30 per cent. of kerosene and the remainder of a small percentage of any light acetate and probably naphthalene and alcohol, together with perhaps small quantities of dissolved solids and other volatile liquids as yet undetermined. Benzol Chief Component "On this analysis it was pointed out that available supply of the fuel must depend on the available supply of benzol, its chief constituent. Investigation in this direction showed that the total percentage of Liberty fuel would be about 2 per cent. of the present output of gasoline, which is approximately 90,000,000 barrels a year. Benzol, however, has other uses, notably in grease extraction and as a solvent for rubber. "A gumming and corrosion test, also conducted in the aeronautic laboratories of the army, showed no perceptible corrosion, but a tremendous amount of gumming, i. e., 94 per cent., accompanied by extensive fuming and penetrating odor? The tendency of the gummy

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If you would fully realize what excellent values are Here at our January Shirt Sale you will be on hand before the sale closes Saturday night — We have just been advised by one of New York's prominent shirt manufacturers that wool and silk shirts will be higher priced for future delivery than they have been in the past season.
Wool piece goods sold to the manufacturers brought twenty-five (25) per cent more than it did a year ago, so you can see at a glance what to expect if this condition keeps up — Fortunately we have a tremendous stock of Flannel and Silk Shirts and great quantities of high grade shirts on which you can save during this Shirt Sale.
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