

THE FRENCH FLYING CORPS

The French flying corps is more than anything else the 'eyes of the army.' With the enormous front which the French have to guard, their task (says a writer in an exchange) would be almost impossible were it not for the aeroplanes and the aviators. As in everything else in this war, the aeroplane has been something of a surprise.

When war was declared you doubtless pictured in your mind a fleet of a thousand aeroplanes charging down air lanes against thousands of hostile machines. You probably pictured titanic battles in the air between Zeppelins and Clement-Bayards, between Parsevals and Bleriot. You expected to be thrilled daily by hair-raising stories of the exploits of the aviators. The trouble with all that is that the aviators are working away in the air just as you work in the office, the store, or on the farm. The aviator has many duties to perform, but the least important of them is to attack the enemy. Map making is perhaps his most important function.

Step inside of the general's office this war, you know, is being run from offices, just as a factory is and you will see in a minute just how it is all done. On the general's desk, a regular desk such as a broker uses, you see a pile of photographs. They were made by aviators using special cameras, and are enlarged. You see white lines running across the pictures. Other lines are zig-zaggy. Some start nowhere, while some go squirming completely across the paper. Now look on the wall. There you see the same map on a large scale. Every tree, highway, river, brook, hill, wood, bridge, or railway is clearly shown there, but the zig-zaggy lines are not. They have been made since the big map was prepared a year ago. They are the hostile trenches or German works of some sort. If the exact nature of the works cannot be made out the chief of the aviation corps assigns one of his aviators to investigate. He goes out, makes an observation and another picture. Other aviators check him. Next day, and then at regular intervals other pictures are made. They are enlarged and compared. The little line that started apparently nowhere has grown in length. It has turned in the direction of other white lines which the officers know are French trenches. The general in command makes his plans accordingly. He has exact information now and can order an attack, knowing what to expect.

Pictures Aid Draughtsmen.

Aided by the photographs a corps of draughtsmen are kept busy at various corps and army headquarters making ground plans showing every trench built or under construction by the enemy as well as their own. These plans are drawn to exact scale and are kept strictly up to date by the hard working, plodding aviators. Of course, the aviators do other things, such as dropping bombs on ammunition depots or convoys or army headquarters and occasionally they engage in a duel among the clouds, but it doesn't require a military expert to realise how much more important his more prosaic picture taking and map making work really is.

The pictures many times give information which the enemy is doing his best to keep secret. The photographs of a number of villages are made, for instance, and in one of them in particular there are signs of considerably more activity than usual. Other photos of the same village are made, really almost moving pictures, with the interval hours instead of seconds, and by these snapshots it is discovered that trains are arriving or departing; that many convoys are stationed there; that reserve trucks or the like are there—in short, it is learned that the village has become a troop centre.

The picture idea had to be adopted because an aeroplane must fly 2500 yards in the air to be comparatively

safe and at that height the eye cannot take in details. An aviator might fly many times over a village and not catch the secrets the camera divulges with its microscopic reflecting lenses.

WINE IN THE HOLY SACRIFICE

A correspondent, writing to *America*, asks the following questions:—Is ordinary wine (a beverage containing several per cent. of alcohol) absolutely necessary for the celebration of the Mass? Why could not unfermented grape juice be used? If for some good and sufficient reason wine could not be obtained, would the Holy Father, or the Church Universal, have the power to eliminate wine from the Holy Sacrifice and make use of some other liquid? Is there any conceivable condition in which Mass might be celebrated without wine?

To answer our correspondent, whose letter is only one of many similar inquiries occasioned by recent prohibition legislation, it will be necessary (says the Rev. J. Harding Fisher, S.J., in *America*) to divide his query into two parts, and it will be more convenient to discuss these parts in the reverse order to that in which he has proposed them. First, therefore, we shall inquire whether wine is necessary for the Mass, and secondly what the Church understands by wine?

The answer to the first question is a categorical affirmative. There is no conceivable condition under which Mass might be celebrated without the use of wine. The reason is not far to seek. Without wine there can be no transubstantiation of wine into the Blood of Christ. Without the transubstantiation of wine into the Blood of Christ there can be no Mass, because the two fold consecration is essential to the sacrifice. The Mass is a sacrifice that of its very essence represents the Passion of Christ. It is the carrying out of our Lord's command, 'Do this in commemoration of Me.' On the cross Christ shed His Blood; at the Last Supper, according to His own statement, His Blood was poured out. Clearly, therefore, in the Mass also the Blood of Christ must be shed. In no other way, however, is the Blood of Christ shed in the Mass, except in so far as by the words of consecration the Precious Blood is placed under a species different from that under which the Body of Christ is constituted: that is, under the species of wine. From this it follows that the consecration of both species is necessary for the essence of the sacrifice. Otherwise there would be no shedding of the Blood of Christ. In reality the Blood of Christ is not separated in the Mass from His Body, because Christ is present, whole and entire, under each species. There is, however, a mystical separation of the Blood when the species, which by the words of consecration contains the Blood of Christ, is placed apart from the species, which by the words of consecration contains the Body of Christ. If a priest, therefore, either through malice or mistake, should consecrate the bread and not the wine, the bread would indeed be changed into the adorable Body of Christ, but there would not be Mass, for the simple reason that one of

The Essential Elements of the Mass

would be lacking. Our correspondent asks if wine might, by Papal authority, be eliminated from the Holy Sacrifice. The question has already been answered. Such an elimination would do away with the very essence of the Holy Sacrifice. Perhaps, however, he means to inquire whether the Church would ever permit the single consecration of the bread, knowing at the same time such a consecration would not constitute a Mass. The answer to this question is perfectly clear. It is strictly forbidden by both ecclesiastical and divine law for any priest, under any circumstances, to consecrate the species of bread without also consecrating the species of wine. To do so would be to commit a grave sacrilege. The Church has never