

Tricks of the "War Photographer"

How a remarkable "air" battle is staged thousands of miles from any battle-field—in New York!

By J. A. McManus

BIFF—Bang—Boom—Crack—Crash— or any other words that convey the impression of bursting bombs, the hum of many aeroplane motors and propellers, the sounds of big "Archibalds" sending forth their messages of death and destruction, the echo upon echo of the boom of bursting of big shells—it's all there in the accompanying photograph "War in the Air." Is it not?

A quiet photographers' dark-room, some stories above the noise and bustle of New York's beehive, an enlarging camera, some enlarging paper, size 11x14, a collection of negatives, (Picture No. 3, shown at Numbers 1-2-3-4-5-6)

photograph of a balloon that was set on fire at Sheepshead Bay, N. Y., by Daredevil Rodman Law, and which really looks like a bomb explosion; (Picture No. 7, which is a close-up photograph of an Allied aeroplane, shown also at 8 on the following page); two photographs of aeroplanes in air, Number 10 being the same as Number 9, but thrown out of focus slightly; a cloud scene taken over New York; a fund of imagination; a sense of proportion; unlimited patience—result, a composite picture that looks remarkably like a real air-battle photograph.

The secret behind it all is in the right timing of the exposure of each

negative and in the fact that once a spot on the enlarging paper is fully exposed, you cannot expose on it again; but, if the first exposure is just a little under-timed, and the second a little under also, both exposures will blend together when put through the developer and fixing bath.

Before the actual exposures were made, a sheet of white paper of the same size as enlarging paper, was placed on an enlarging board. The different negatives, with the exception of the cloud negative, were thrown on it through an enlarging camera, and the relative sizes and positions were plainly marked out on it, as they

appear in the accompanying illustrations.

Numbers 1-2-3-4-5-6 (on picture on following page) are exposures of the same negative through a ragged hole in a sheet of paper held between the light from the

lens of the camera and the paper on the enlarging board. This exposure is called "vignetting." The paper used was large enough to block out all light from the rest of the enlarging paper and was moved with a circular motion around the spot exposed to prevent the edges of the hole from showing in developing. The different positions of the same negative were obtained by turning the paper on the



Photograph of a balloon that was set on fire at Sheepshead Bay, New York, by Rodman Law. It is used to represent a bomb explosion



A close-up photograph of an aeroplane belonging to the Allies. The same picture is used again and again but differently focused and in various positions

A Perilous Air Battle—in a New York Studio



Before the actual exposures were made, a sheet of white paper of the same size as enlarging paper, was placed on an enlarging board. The different negatives, with the exception of the cloud negative shown on the right, were thrown on it through an enlarging camera, and the relative sizes and positions marked out. Numbers 1, 2, 3, 4, 5 and 6 are exposures of the same negative through a ragged hole in a sheet of paper held between the light from the lens of camera and the paper on the enlarging board. Numbers 7, 8, 9, and 10 are differently focused views of the same aeroplane



enlarging board.

Before each exposure, the size and position was obtained on the sketch of the whole picture. With the ruby or orange cover on the lens, the enlarging paper was placed exactly over the sketch paper. Then the exposure was made. Both papers were taken down before the next exposure, or changing of negative.

The effect of distance is obtained by making the object smaller and slightly undertiming the exposure. The longer the exposure, the sharper, clearer, and nearer the object will appear to be when the paper is developed.

Exposure No. 1 was over a section of No. 7, and when the latter was made the former blocked out certain parts.

In exposures 8-9-10 the appearance of distance was obtained by gaging the time of exposure and the size, and also, as in No. 8 and 10, by throwing the negatives slightly out of focus when exposing.

In exposure No. 11, the cloud background was exposed over all the paper and greatly enlarged, only a section being used. Care as to the correct timing had to be taken. In fact the exposure was undertimed, as the least bit of overexposure would have spoiled the entire effect.

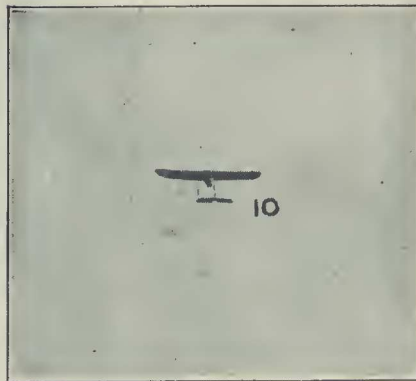
Care was taken at all times to avoid fogging of the enlarging paper.

A variety of beautiful as well as startling pictures can be made by this process of composite enlarging and printing. The average amateur as well as professional photographer has any number of negatives which when combined will make truly wonderful pictures—pictures that cannot be distinguished from actual photographs.

But patience is necessary. The "War in the Air" took four tries, and the last picture consumed one hour and twenty minutes making the exposures.



The photograph marked 9 is the same as Number 10 except that the latter is differently focused



Hoisted by an Automobile up to the Clouds

PERHAPS the queerest use to which the automobile has been put is that illustrated in the photograph below. It shows a steeplejack resting confidently on his nerve and on the end of a steel cable, the other end of which is attached to an automobile below. He is being hoisted to the top of a gigantic steel mast, towering high in the air, to give attention to the antennas of the largest wireless plant in the United States, which is located at Bolinas, California, about fifteen miles northwest of San Francisco.

A. A. Isbell, engineer in charge of the plant, states that the steeplejacks prefer an automobile to a horse for the hoisting, since the flat cattle range surrounding the base of the masts make the automobile practicable, and the machine is more reliable and insures more steadiness in the ascent than a horse. The plant has nine of these great tubular steel masts, so that considerable work aloft is necessary.



The other end of the cable is fastened to a moving automobile which is hoisting the jack three hundred feet to the top of the mast