

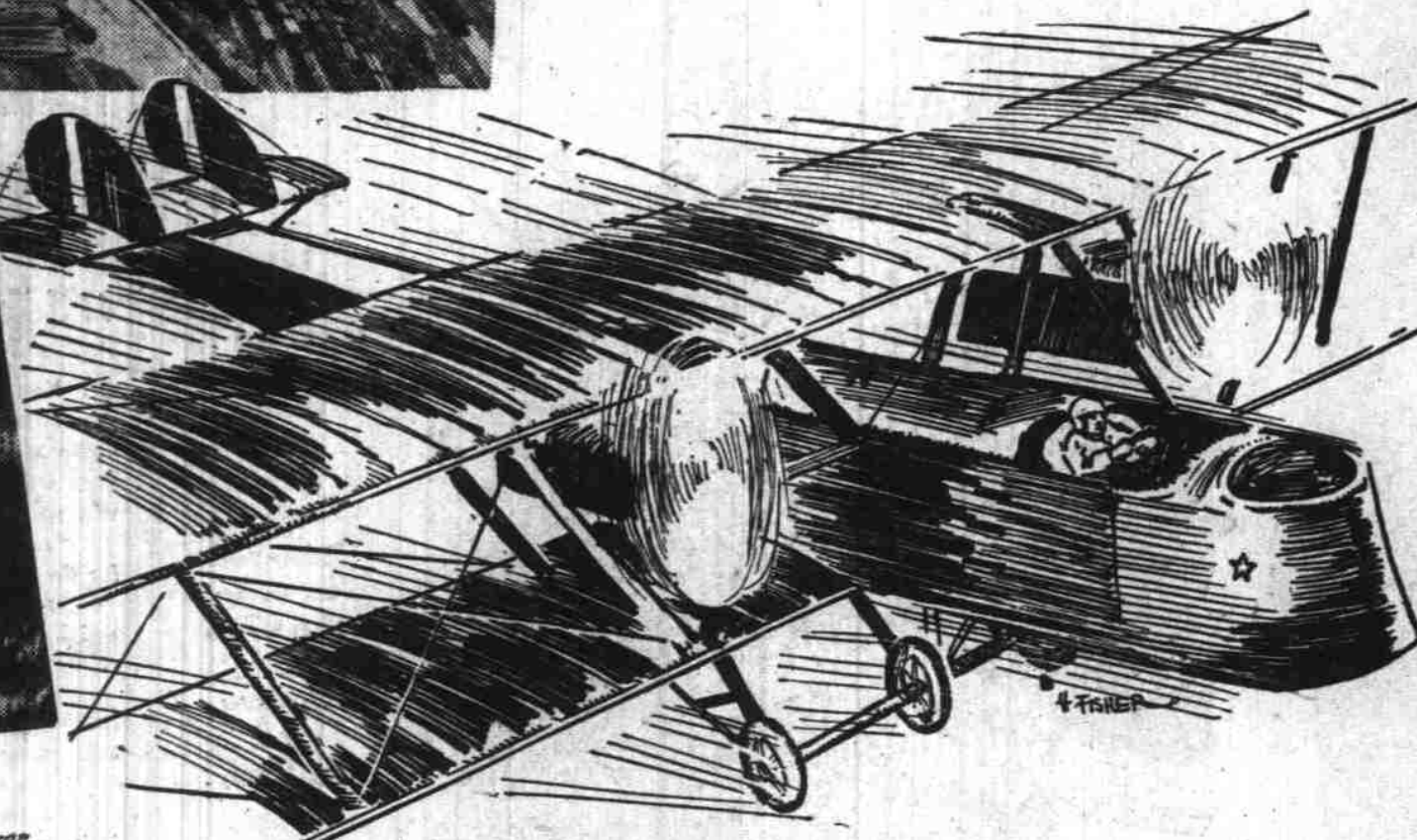
What the Birdman Sees



Between the Cities Over the River



Where tall buildings tower with the Journal slides prominently seen.



A Glimpse at one of Portland's Industrial Centers

Skimming
the Milky Way, the
"Flying Photographer"
Finds in Portland
Many New and
Unusual Sightings—the
Real Birdseye View
of the Metropolis
That Reduces Man and
His Works to a
Wondrous Pattern



PHOTOS BY C. S. WOODRUFF.

C. S. Woodruff in Action



Where some of Portland's 260,000 people live

The Comer—by Arthur Train

(Continued From Page 8, This Section)

known men to be up against propositions they couldn't work out," said Randolph. "Either way seemed wrong."

"To them, maybe," answered Larry. "But not to educated men like you and me—and I guess it doesn't take such a lot of education, either."

Endicott smoked in silence for a moment, watching the antics of a gray cat and two kittens on the roof of a neighboring extension.

"Ever been in the South, Larry?" he asked in a changed tone.

"No," answered the boy. "Why?"

"I reckon you wouldn't like it all," replied Randolph. "It's pretty dead in certain spots. Along where I come from, for instance, there's a village of about 50 houses, a brick block, and a wooden courthouse. The biggest lawyer in the town earns about \$2500 a year—paid partly in hogs and hominy. The rest are successful practitioners at about a thousand. Most of the time you spend in circuit, living at hotels that make a Chatham Square lodging house look like the Waldorf. The wildest dissipation is a two-bit poker game in the back room of the grocery. It used to be quite a place before the war. It's burned out now. No one has got any money. The farms aren't even kept up. The roads are so bad that the folks couldn't get around to see each other even if they could afford to keep horses."

"Whew! Think of a real live man like you wasted down in a place like that!" commented Endicott. "You must be glad you left."

"I'm not so sure," replied Randolph, with a drawn face.

Endicott's eyes rested affectionately upon his chief's leonine head, with its long, black locks, upon his strongly marked and still youthful features, his broad shoulders and powerful neck and chin.

"What's the matter? Down on your luck?" he asked with a smile.

"A little," answered Randolph.

"Then I'll cheer you up," he laughed. "Do you know what they say?—That you're the biggest man in New York today! The man with the biggest chance of anybody. A sure judge the next election, if you want it. A comer!"

Randolph shook his head bitterly.

"You've got me wrong, Larry," he answered with a smile. "I'm—I'm eliminated."

THERE was a lot of business to attend to in the office that afternoon, and things did not get straightened out until nearly 4 o'clock. It was well after that, and almost time to close up, when Pat announced a visitor—a Mr. Ketcham.

"Show him in," said Randolph. He didn't know any Mr. Ketcham, but he had a premonition—a sort of—yes, he had, seen the man before somewhere. There was something in the stranger's insinuating assurance and obvious familiarity that instantly antagonized him.

"I thought I'd drop in for a little chat," said Mr. Ketcham. "I want to see you privately." He gave the slightest suspicion of a nod. "About this waterworks business."

"Go ahead," said Randolph, frowning dubiously. It was coming. He knew it.

And this was the slick, smooth article sent to put it over the plate.

"By your leave," said Ketcham, stepping to the door and closing it. He moved silently and swiftly, and his face had the inscrutableness of a dried apple. Then, passing Randolph's desk, he returned to his chair and, throwing himself into it, rested his finger-tips lightly together. Randolph waited, and his eye traveled from the bald head of his visitor to the imitation rubber plant and the water bottle.

Then suddenly Randolph became aware of something lying upon the polished surface of the table. He looked closer, pretending not to. There it lay, smooth and crisp and flat—a yellow-back for—yes—\$20,000. He felt a quick clutch at the heart. Ketcham had gotten up and was examining the rubber plant.

Randolph set his big jaw. He glanced stealthily at Ketcham, and thought he saw the faintest imaginable smile on his face. A great rage possessed him slowly, and a deep flush mounted upward to his forehead. Muttering to himself, he leaned over and, pulling out the bottom drawer, fumbled in the back of it until he found the indictments. He was thinking as hard as ever he thought. Ketcham had returned from his saunter around the room and stood innocently by his chair. He had bought men like Carter before. Nothing ever flustered him. He knew the game from A to Izzard. He thought he knew precisely what was passing in his quarry's mind.

"Have a cigar?" asked Randolph, holding out his case.

"Don't care if I do," replied the other affably, helping himself.

Randolph stepped to the door and opened it quickly. Pat was sitting within in plain view outside. The district attorney bit off the end of his cigar, while the immaculate Ketcham fastidiously performed the same operation with a pearl-handled penknife.

Randolph with apparent unconsciousness picked up the bill, rolled it into a splint, struck a match and held it to the bank note, which slowly caught fire.

Ketcham turned pale and stepped forward with a silent gesture of protest. Then his eye caught the figure of the waiting Pat outside. The bill flamed up, crackling cheerfully, and Randolph absent-mindedly applied it to his cigar. He took a long time about it. Then the district attorney turned to his visitor and held out the fragment of blazing bill.

"Have a light?" he offered.

Ketcham stared at him stupidly.

"Have a light!" repeated Randolph more loudly, looking him steadily in the eye.

Ketcham opened his mouth to speak.

"Have a light!" roared Randolph, forcing the burning thing into his hands. Ketcham took the bill and held it to his cigar.

"Thank you!" he stammered.

The district attorney leaned over and pressed a bell.

"Pat," he said in his ordinary, quiet tones, "show this gentleman out. And, by the way, tell Mr. Endicott to put the Tidewater company's case before the grand jury tomorrow morning."

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By Earl C. Brownlee

SOME day Portland school children will study their lessons in geography from mosaic maps—photographs from cloud-land. About the same time public spirited folk will institute a strenuous "clean-up" campaign whose results will be chiefly visible to the flying tourists who come among us.

Meanwhile the fire marshal and his staff will make regular inspection from airplanes and will drop to the receiving decks of tall buildings orders demanding the removal of fire hazards that are already apparent to the eyes of the birdman.

Such fanciful possibilities seem actually to be probabilities as the outcome of a careful inspection of Portland from the air for the compilation of a photographic record of the city and, in fact, the entire state, from somewhere near the milky way.

Having flown over practically the entire state, and having spent many hours in the air over Portland, photographing everything from landscapes to industrial plants from the cloudland perspective, C. S. Woodruff, former Journal staff photographer, has become an authority on air photography and is in a position to reveal some of the little known tricks of the trade he has learned.

As to what the airman sees, Woodruff declares that the most impressive sight from on high, after the novelty of the new line of vision has worn off, is the Willamette river. It is not realized, he says, what a winding stream the old Willamette really is, cutting its crooked path through the heart of the city after it leaves a territory of verdant farms until it loses itself into the Columbia river. The wide arm of water, bracketed by the several trans-river bridges of steel, actually hasn't a straight inch in its course through Portland, Woodruff testifies.

The business district of the city presents an odd view. Huddled together, as the flying photographer sees them, great buildings seem even to crowd out the air of the lower altitude, and with a very few exceptions there seems not to be an uncovered foot of soil anywhere in the congested district. However, from the cockpit of an airplane the photographer sees Portland streets much wider, in relation to their surroundings, than they really are. Some optical illusion is responsible for enhancing the seeming width of thoroughfares that are actually narrow—and motorists whose vehicles shave one another in passing really have feet to spare, as the flyer sees them.

But this compact, closely built city soon gives way to a hem of homes and greenward that blends suddenly into great stretches of field and of forest, with a dwelling only now and then in view. One marvels, says Woodruff, at the great unoccupied territory in the residence districts of the city—a condition that one must study to discover once he has returned to the ground. Between one well populated district and another of the same kind will be thousands of acres, it seems, of vacant lands, with no apparent reason for such a condition in a city where one location appears to be as good as another.

Soaring eastward over the city the Columbia river highway looms up prominently to the airman and reveals a new angle of beauty that, if it does not surpass the view from an automobile, at

least fully equals such a view. The highway bends and curves gracefully, even beautifully, as it courses its fir-bordered way along the river—a grey velvet ribbon paralleling a wider ribbon of silvery satin.

Once interest in the compact scene of Portland presented to the sky pilot has faded, there stares up at the flier a scene that is anything but beautiful, anything but creditable to a community in the midst of a "city beautiful" drive designed to cleanse the city of every unsightly object and unclear corner.

The "drive" has gone far enough, but not high enough, the birdman will say, because it has not discovered "the top of the town," as the airplane passenger can see it. That such a view is disgraceful is Woodruff's statement.

On the tops of Portland buildings are piles of rubbish that, at lower elevations, would be ordered immediately removed as fire hazards. There is, plainly visible, the grimy collection of dust and soot—everywhere on "top of the town" is waste material; piles of waste lumber left by those who built the city; mossy roofs, cans and—well, almost everything, even to the long forgotten bits of family wash that someone forgot to send father up to get when he came home from work.

"Really," Woodruff says, "the fire department could find many new fire traps if it would send a flying inspector over Portland."

Air travelers of the future will demand that Portland's roofs be put into slightly condition just the same as citizens demanded that the civic black eye that used to exist about Union station be removed as an eyesore and an insult to visitors.

"Photographing from above is great sport if you like it. But you won't have any hankering for a second dose after you've tried to take a picture of The Journal building, for instance, while your pilot has been banking a circle, with you in the middle, for several minutes, with his plane tilted at about 45 degrees."

The flying cameraman ascends at least 200 and often 400 feet higher than the elevation at which he wishes to make his exposure. He gets his approximate location and indicates to the pilot. That very important personage "zooms" or commits some such technical ceremony, and winds into that aggravating circle while the photographer clings to the cockpit rail and watches his chance to release the shutter of his camera—a device constructed for speed.

From certain angles and heights only can a successful picture be made. There is no object in shooting directly down for anything but map making. Therefore, most air pictures are taken from an angle, and invariably so if they are to be scenic views. When the pilot has circled his plane and dropped to the desired altitude the photographer so indicates and the airplane motor is halted while the exposure is made. Thus, as nearly as possible, vibration is eliminated. It would be fatal to an air picture to rest the camera on the machine.

The proper height for picture making is indicated to the photographer when his subject, if it be buildings or trees, "straightens up." Until the proper height is attained the picture will show the buildings leaning toward one another, but such an effect suddenly disappears

as the right height and angle is reached. In the tractor type of plane, which Woodruff has used chiefly, it is necessary for the photographer to work from the back end, for if he shot forward the wash from the propeller would carry oil and vapor on the lens and make good pictures impossible.

Shooting from the rear of the plane means that, while flying level, the photographer must either lean far over the edge or the plane must be tilted to permit him to stand upright and shoot down. And if his line of vision is to avoid the fuselage the plane must not only be tilted, but turned sharply just before the exposure is made.

Woodruff stands with his back to the propeller, facing opposite to the direction of travel and thus avoiding the use of goggles. He ropes himself to the plane and ropes his camera to his body, else there might be neither camera nor photographer after a particularly "rough" air voyage. He uses the customary type of speed camera, similar to that employed by press photographers, for everything but pictures taken directly downward. For these is used a specially constructed camera that, with the aid of a windmotor, will automatically expose 100 pictures in rapid succession.

It was such a camera he used in picturing a great tract of timber in Southern Oregon, a flight on which, by means of the windmotor, 1000 negatives were made. These negatives presented a continuous picture of the country over which the plane soared and constitute a map that shows every tree and other object on the ground above which the flight was made.

Amateurs in air photography have been severely handicapped by conditions that the professional is able to overcome. For instance, the "phenomenon glare." This element bothered even Woodruff until he conceived his own way of avoiding the trouble. Taking pictures from a great distance or from a great height brings about a condition that admits an unusual amount of light to the lens. This light is so plentiful, in fact, that it is almost impossible to keep it out of the supposedly light proof box of the camera. The resultant picture is a mere blur—

unless the secret of success is known.

Photographic map making from the air is the coming thing, in the opinion of this photographer, who declares that pictures are far more complete than maps of equal size could possibly be, for every visible thing is recorded on the photographic plate or film.

The day will come when cities, states and, mayhap, the nation, will be mapped by pictures taken from the vantage point of an airplane cockpit, but that day will probably be delayed while the genius of the realm seeks perfection in photographic apparatus and the cameramen themselves develop perfection in their methods.

That the latter is coming to pass is indicated in many ways, and in many places. Woodruff has taken several forward steps on his own account and has already built a darkroom contrivance that he fits to the plane in which he is flying and in which he develops his pictures as he flies. That is "speed" reduced to the newspaper conception of the word.

The air cameraman goes aloft to take a picture and by the time the plane has landed his film or plate is developed and ready for the printing, from which it can be reduced to a zinc engraving and be reproduced therefrom in the newspaper.

Woodruff is planning further developments that will permit him to finish while he flies contact prints from the negatives he makes in his airplane darkroom. The darkroom itself is extremely simple, for it is merely a cloth hood covering his solution containers and admitting only his head and arms, with the only source of light a couple of little red celluloid windows.

Airplane photography has already been advanced to a point where its value is attested in many lines. Not only in mapping and scenic picture making, but in fast newspaper illustrating it is being extensively used. Pictures taken at great distance from a newspaper office can be returned to the office, developed and ready for printing in the same length of time it would take a photographer to do the same work at a fraction of the distance without the airplane for a carrier.