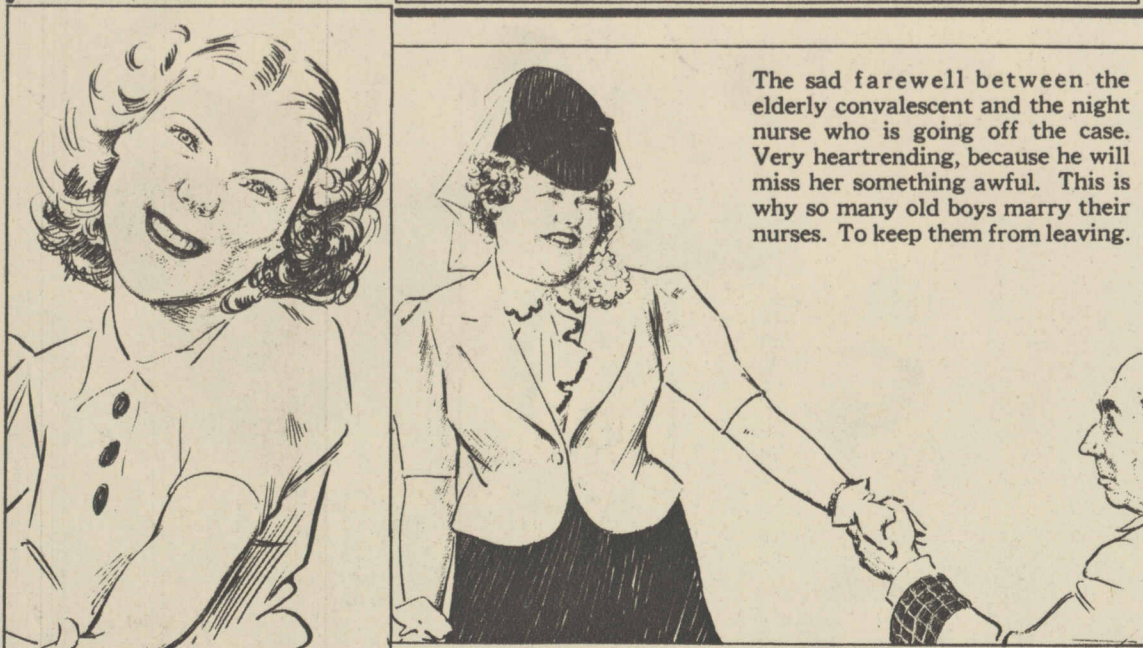


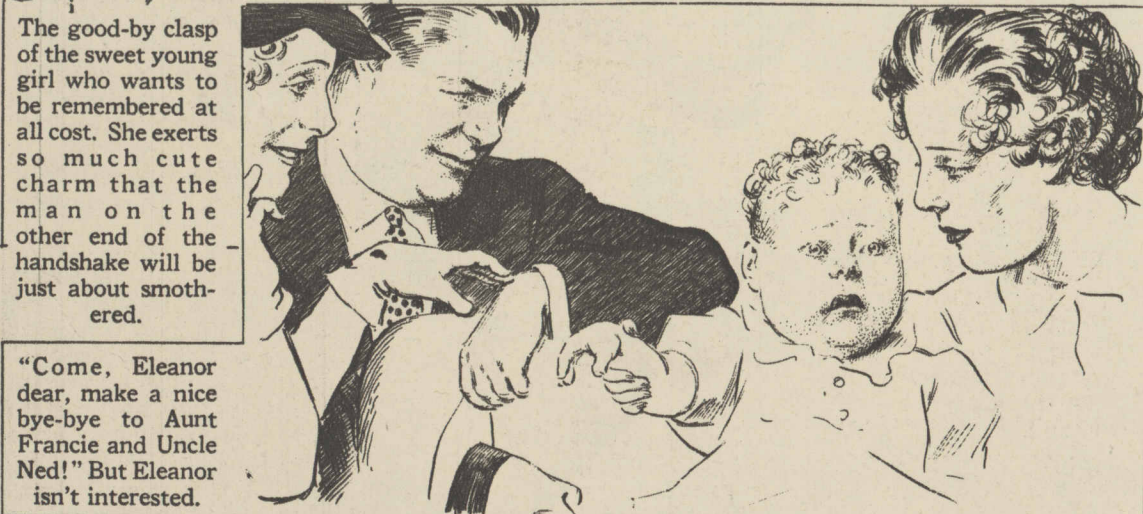
"GOOD-BY!"

By W. E. Hill

Copyright, 1938, by Chicago Tribune-N. Y. News Syndicate, Inc.



The sad farewell between the elderly convalescent and the night nurse who is going off the case. Very heartrending, because he will miss her something awful. This is why so many old boys marry their nurses. To keep them from leaving.



The good-by clasp of the sweet young girl who wants to be remembered at all cost. She exerts so much cute charm that the man on the other end of the handshake will be just about smothered.

"Come, Eleanor dear, make a nice bye-bye to Aunt Francie and Uncle Ned!" But Eleanor isn't interested.



The hearty, but insincere, good-bys of the "cruise" companions, who have been inseparable for the past ten days. "Don't forget to look us up when you come to Dayton," and "We'll look for you in Elmira this Summer," they say. But it doesn't mean a thing.

The warm, intense good-by of the girl who wants to know when she'll see him again. Monday? Tuesday? Wednesday, perhaps? She never bothers to say good-by to the women in the party.



A cheery good-by and good riddance to the week-end guests who overstayed their welcome.

The farewell forever, which takes place on an average of two evenings a week between the jealous sweethearts. She discovered lipstick (not her shade) on his white coat, and he insisted she was trying to make the saxophone in the swing band, and so it goes. Next day they do a lot of explaining over the phone and everything is right again.



The comic fellow whose parting is sure to include "Au reservoir," "See you in church," and "Don't take any Confederate money."

The long-drawn-out "Good-by" to the bride and bridegroom, which is great fun for everybody but the newlyweds. The bridal party stick around like glue and keep coming back to peek in the Pullman car window to see if everything is all right, and if Jane has found the old shoe in her traveling bag.

Flying Target Practice

Civilian Has Lesson in "War"

By WAYNE THOMIS

"RRRRRRRRIP" came the muffled explosions of the machine gun.

From the observer's cockpit I could see over the pilot's head. I lined up the gun sights and watched sand spout as lead and tracer bullets poured into the embankment. We were in a shallow dive and very low. The gun's stutter ceased. The 600-horsepower engine began rumbling comfortably and the machine lifted into a climb as we flashed across the beach and out over the cold blue waters of the lake.

"Terrible! Lousy!" came the voice of the pilot and machine gunner—Lieut. William Westlake—through the interphone from the front cockpit. "Don't think any of 'em went near the target."

The left wings dipped as we swept around in a turn toward shore and Camp Logan's barracks and flagpole. Headed inland, we could see another National Guard plane diving at the butts. No sound of firing came through our motor's noise, but we saw the plane stiffen as though the pilot were holding it steady while shooting. Then it, too, was past the targets and pulling up in a steep climbing turn.

Now we were in position for another dive. Westlake banked



A Douglas O-38 observation plane over the firing range. The 108th observation squadron of the National Guard has six of these two-place open biplanes. (Tribune photos.)

he drawled gently. "These Browning guns fire very rapidly, twelve hundred a minute. That's twenty a second. If it's a short burst, though, you sometimes can count your memory of the shots."

While the armorer stripped away the cowling over the gun

timing gear which fires the gun just after one blade of the propeller has cleared the muzzle. The slug is out of the barrel and on its way before the other blade comes around."

These guns fire so rapidly that the pilots are unable to hold their firing to short bursts. So it has become the practice to put the belts together with one dummy shell after each ten live cartridges. The gun rips off the ten and then stops when the dummy is thrown into the breach. The pilot recocks the gun, ejecting the dummy, when ready to fire another burst of ten.

The schedule for firing at the ground targets calls for a maximum of ten dives by each pilot. Two targets are assigned to each flyer. And the pilots when firing for record have four "phases" on each target. Two of these are made from left turns into the dive and two from right. The firing is at alternate targets. While the airplane is diving on one target the ground crew counts the hits on the other. Since there are eight available butts at Camp Logan, two planes fire together. While one is diving on the targets the other is climbing away and maneuvering into position to dive.

"What was your score, Bill?" demanded other pilots of the squadron when we returned from our scheduled firing.

"I'm not telling," he grinned back. "This was practice. I'm not going to fire for record till I've had more practice."

Major McElvain, who had arranged for me, a civilian, to fly as a passenger with his squadron pilots on the shoot, assured me there was even more sport in firing at the sleeve target which is towed at ninety miles an hour. One squadron plane tows the target at the end of a 1,000-foot cable at a height of 3,000 feet. Other pilots then climb up and dive at the sleeve, passing as close to it as possible and firing for the fraction of a second that it whisks across in front of them.

The dive is about 90 degrees across the course of the tow plane, so that the bullets are directed away from the towing

ship. In other words, if the target is being towed due north the firing plane must dive either due east or due west.

Weeks later the major himself demonstrated to me. We met the tow plane at 3,000 feet and three miles out over the lake. Major McElvain slid in close to the sleeve, looked it over, and then climbed ahead and above it. Finding the position he desired, he half rolled into a dive at the tow cable well ahead of the target and with his plane pointed away from the shore.

The cable began to grow in the sights. We were upon it. Just as I thought we would foul it with our propeller the sleeve flashed past and the gun stuttered briefly. Speed picked up in our dive was used to climb back into position. On the next dive the major held his fire, for the jacketed bullets otherwise would have pounded into one of the city's pumping stations there below us.

From the right, from the left, diving and zooming toward the



A member of the ground crew inserts a new belt of cartridges.

target, we continued the fascinating game for half an hour. Perfect timing was required. The method was to dive as close to the sleeve as possible, thus to make certain your burst went into it.

Later I learned that one pilot had dived into a sleeve. It lodged in one wing, but he managed to land safely. The impact, of course, snapped the tow line.

In its winter course the squadron made some of the highest target scores ever recorded by pilots in the United States. Lieut. R. B. Daniels scored 824 hits out of a possible 1,000 while firing at the ground targets. Captain Kuhn, firing from observer's position at a sleeve target, made a score of 734 out of a possible 800. This is phenomenal shooting.



The pilot-machine gunner's view of targets at approximately the moment he ceases firing. The plane is only about ten feet off the ground, 300 yards from the targets.

vertically, then weaved and twisted the big biplane to get his sights on the 36-inch solid black bull's-eye which looked so small from where we were beginning our "pass." The gun on the Douglas O-38 was rigidly mounted to fire through the propeller. The pilot aimed the ship to point the gun and was forced to hold the craft in an absolutely straight line to make his firing accurate.

...

This was our fourth dive. On the first two Westlake held his fire in order to gauge the slight cross wind and to get a close look at the bull's-eye. This time he was firing again. A whole package of Chinese fire crackers exploding—that's what it sounds like, I thought. Then, before we'd finished the dive, there was silence. I could see Westlake fumbling with the cocking handle on the machine gun.

"Calling PV-7, Lieutenant Westlake to PV-7," his voice came suddenly on the plane's transmitter. "My gun's jammed. Going back to Waukegan airport to have the armorer look at it." "Oooooo-kay, Bill," came the drawn-out reply from the officer controlling the firing from the squadron radio trailer on the ground near the butts.

But back on the airport—temporary base for the target practice—the armorer reported it was not a jammed gun. We'd emptied an entire belt of eighty rounds.

"Eighty!" I gasped. "Sound-ed like twenty. I thought I'd counted, too."

Maj. C. A. McElvain strolled over. The major, commanding officer of the outfit—108th observation squadron, 33d division aviation, Illinois National Guard, shook his head.

"They come too fast to count,"

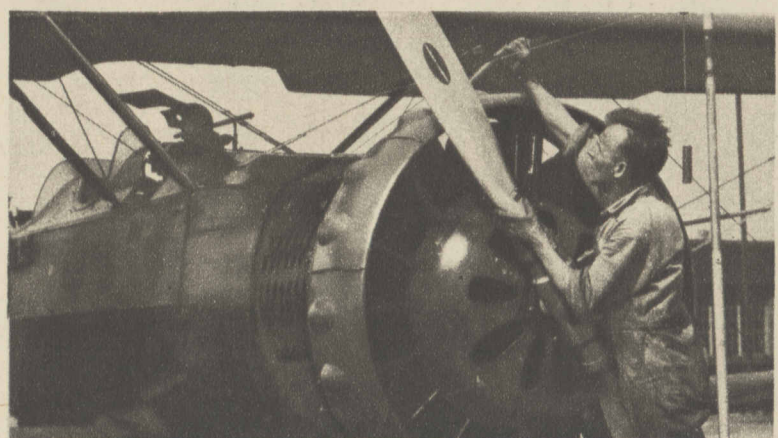
to insert a fresh belt the major talked about his squadron's guns and ammunition.

"We get special cartridges," he explained, "for synchronized machine gun use only. If found unsatisfactory they are returned to the ordnance depot."

He pointed toward a wooden box filled with cardboard cartons of fresh, shining brass shells. Several men under Capt. R. C. Kuhn, squadron armorer, were fabricating new belts of cartridges. The belts consisted of metal links, each of which held one cartridge and a connection for a neighboring link. As the shells are fired the links fall away and are ejected with the spent cartridge case. The belts are built up one link and one cartridge at a time.

"The guns are special aircraft weapons, air-cooled and lighter than ground machine guns," the major continued. "They are very finely machined and fitted, which makes it possible to fire them just about twice as fast as the more rugged Browning gun issued to ground troops."

"Sure it shoots through the propeller. There's an electric



A squadron mechanic checks the timing of the machine gun. The propeller blade is at the exact position it has in action when the gun is fired—just past the line of the bullet's flight. The light-weight machine gun can be seen by the front cockpit.