

Blind Man Is Good Machinist

Operates Lathes, Drill Presses, Grinders and Other Machines in Machine Shop.

TAKING UNIVERSITY COURSE

Foreman in Shop Says He is as Good as the Best and Better Than Many—Reads Micrometer Readily.

Ann Arbor, Mich.—Blind Gerald Ensing of Grand Rapids is working in the engineering shops of the University of Michigan, and daily operates lathes, drill presses, grinders, shapers and planers, and according to the shop foreman, E. M. Sweet, he is doing it as well as the best, and better than most of the other students in the shop.

Ensing has been blind since he was eight years old. He is studying in the university on a Red Cross scholarship for the blind, given by the Detroit chapter of the national organization. He has pledged himself to devote himself to teaching other blind people how to become self-supporting after he has completed his work here. For the past five years he has taught the blind the art of basketry, which he himself learned in the Michigan School for the Blind, and has taught them other trades also.

Help for Sightless. "I demonstrated to my own satisfaction that blind men could work on factory machines," he said, "but I had difficulty in getting places for the blind. Then came the Red Cross scholarship offer. I will get to know the men and they will know me and my work. They will see what a blind man can do, and I believe they will help to open the doors of the manufacturing plants to the sightless. Of course in shops of special production where the work must be done from a blue print, the blind man would be too greatly handicapped, and in shops where there is a great deal of noise there is a great hazard for him."

Ensing came to the university about six months ago and was led through the shops, past the whirling machinery, and told where each piece set, and what it was and where there were belts in which his clothing might get tangled. After that he threaded his way among the machines without help, and operated his own machine without accident. Some of the machinery he operates makes above 800 revolutions a minute.

Ensing believes drill pressure machines lend themselves especially well to blind operators. Metal-working factories offer greater opportunities to the sightless than the wood-working industries do. The greatest possibilities for the blind operators, he believes, will be found in the plant of quantity production of small articles.

Foreman Sweet says: "Mr. Ensing's work is not performed automatically, as one might suppose. It can't be done that way on some of the machines. He reasons, and he sees with his sensitive fingers what another man sees with his eyes. We allow every student a limit of 3-1,000 of an inch in the work he does, but Mr. Ensing never uses up that margin. I can't say the same of most of them."

Proves His Efficiency. The foreman admitted that he saw Ensing come into the shops with dread. "When he wanted to be put on the planer I rebelled, but after the first day on the planer I forgot all about it. He reads a micrometer as accurately and as readily as any other student. He has rigged up a little contrivance that he attaches to the instrument—just two rubber bands and a needle—

and with the help of his fingers he reads quicker than some of the men who have their sight. He uses every machine in the shop except the dry grinder, and I expect every day to hear him demand that. He operates the cylindrical grinder, milling machines, engine and turret lathes, drill presses, shapers and planers. His work is a marvel of neatness, and he is chain lightning for speed.

While a student in the state school for the blind Ensing played guard on the school's football team. "There is no reason why a blind man with a normal brain can't work and enjoy himself as well as the man who can see," Ensing says. "True, we miss the great blessing of sight,

Cite Lord's Prayer in Legal Brief

St. Louis.—A petition in the Lord's Prayer was quoted in a brief filed by counsel for nine bakers who are attempting to enjoin the enforcement of an ordinance requiring bakers to be closed after 9 a. m. on Sundays. "Advocates of this law are guilty of hypocrisy and fly in the face of a divine mandate," said the brief. "In the Lord's Prayer we find the petition: 'Give us this day our daily bread.' Bread is needed on Sunday as much as on any other day, even though legislative Holy Rollers make that prayer a mockery and try to prevent the Lord from acceding to our request."

The brief also asserts that the closing ordinance is in conflict with a state law which permits the Sunday sale of drugs and provisions.

and none of us but long for our sight, but I sometimes wonder if the blind have not a keener sense of enjoyment of the things they can and do enjoy than have those who can see."

"WALKING" ON WATER



A. N. Sheldon of Ventura, Cal., a fifty-two-year-old farmer, is shown "walking" across San Francisco bay on his "water-ski." Two light wooden pontoons are arranged to slide back and forth in a strong wooden frame. Sheldon's feet are slipped into straps, and by moving his feet he "walks" on the water.

Golf Caddy Sues for Loss of Eye. East Orange, N. J.—A suit for \$85,000 for the loss of his right eye, blinded by a blow from a golf ball, was brought by Cornelius Toohy, four-teen-year-old caddy, against Franklin Webster.

Mountains Float Like Icebergs

Interesting Researches Made by the United States Coast and Geodetic Survey.

CHANGES GEOLOGICAL SCIENCE

Mountain Masses Found to Be Due to the Presence of Lighter Material in Earth's Crust Under Them.

Washington.—Mountains float, cubic yard for cubic yard, mountains weigh less, not more, than the valleys. The mountains are held up by the lighter material of the earth's crust flowing under them. This has been proved by researches conducted by the division of geodesy of the coast and geodetic survey, under the direction of Dr. William Bowie, chief of the division, and his predecessor, Prof. John F. Hayford, now with Northwestern university. It has been found that the earth's crust is about sixty miles in thickness, and near that depth, probably below, the material of the earth is yielding to forces which act for long times.

The earth's crust floats on this yielding material. If the earth's crust

were cut into blocks by vertical planes, with the base of each block at a depth of sixty miles below sea level, and the area of the bases of the blocks were the same and as large as 100 miles square, these blocks would weigh the same mass; that is, they would weigh the same.

Weight Is Equal. By means of the geodetic observations by the United States coast and geodetic survey, the weight of these blocks have been found to be approximately equal. This result had been suspected for decades, but Doctors Bowie and Hayford have proved it.

Geological science will be profoundly changed by this discovery, for now we know the mountain masses are due to the presence of lighter material in the earth's crust under them, and that the ocean bottoms are low because the material under them is denser or heavier than the average.

Doctor Bowie concludes that there is no tendency for the mountain masses to break down through the earth's crust, as they are not extra loads. They are like the portions of icebergs projecting out of the water which are held up by the ice which is below or in the water. The iceberg floats, and so does the mountain.

Doctor Bowie also holds that, as mountain system are in areas which were once very low in elevation, mountains are caused by a swelling of the material in the earth's crust under them. A lessening of the density of three per cent in a column 60 miles long will elevate the area about 9,000 feet. Such a change in density, due to physical or chemical changes, is within reasonable limits.

Flow Is Below Crust. As the mountains, plateaus, valleys and the ocean areas are in equilibrium there must have been a transference of material from the column of the earth's crust under an area where sediments are deposited, back to the area from which the material was eroded by water and wind. Doctor Bowie believes that the flow of material takes place just below the crust, that is somewhat below 60 miles. The exact depth at which the flow from one column to another takes place may never be discovered.

Doctor Bowie states that, as material is eroded from a mountain area, the new material pushed in at the bottom will tend to keep the average elevation of the mountain system approximately constant. When material is pushed into the column under a mountain system to counter-balance the eroded matter, every particle of the column is carried upward into a colder zone. Under areas of heavy sedimentation, the material of the earth's crust is pushed down into hotter regions. A piece of material may thus be raised up or carried down as much as six miles and, at times, more. The great changes in temperature are probably the cause of the uplift of a mountain system in an area of sedimentation, and of the sinking of the surface where erosion has been great,

Scenes in the Zionist Colonies in Palestine



These photographs, just received from Palestine, show the type of frame houses that shelter many of the recently arrived Jewish colonists, and farmers at Attara, near Jerusalem, using modern American implements and excellent mules.

Graphic Tale of U-Boat Murders

British Captain Testifies to Submerging That Cost the Lives of Crew.

THREE SHIPS ARE TORPEDOED

German Commander to Be Put on Trial for Brutally Inhuman Acts at Sea—Captain Is Ship's Only Survivor.

London.—A graphic account of the torpedoing of the British steamship Torrington in April, 1917, and the subsequent fate of the crew was given by the only survivor at Bow street police court, says the Daily Telegraph, when Sir Chartres Biron sat for the purpose of taking evidence on commission in support of charges which have been formulated against the submarine commander, a Captain Wilhelm Werner.

Mr. V. M. Gattie conducted the proceedings on behalf of the British government and Doctor Bunker represented the German government. Mr. Gattie explained that Werner was one of the German officers against whom it was proposed that proceedings should be taken at Leipzig. He had not yet been arrested, but it was thought desirable that, while Captain Starkey, the principal witness, was in London his deposition should be taken, so that in the event of the accused man being apprehended there need be no delay in his trial.

The charge against Werner was that he, being in command of the submarine U-55 on April 8, 1917, in the North Atlantic, 150 miles southwest of the Scilly Isles, torpedoed the British steamship Torrington, and afterward willfully murdered, by drowning, 34 members of the crew. That was the vessel's total complement other than Captain Starkey, who was the only survivor.

The Torrington was owned by the Tatham Steamship company of Cardiff, and was proceeding from Gibraltar to Cardiff. She was an ordinary merchant vessel, not a war vessel at all, and carried one gun for purely defensive purposes, as many ships did during the war. On the morning of April 8 the second mate reported that there were some lifeboats on the port bow, and the course of the Torrington was slightly varied with the object of rendering assistance if necessary.

Insulted by German Captain. Suddenly Captain Starkey noticed the wake of a torpedo which was coming towards him. He maneuvered, but was unable to avoid it, and the torpedo struck the ship, which did not immediately sink but was considerably damaged. Soon afterwards the submarine came to the surface and opened fire on the Torrington. Apparently the firing was not very successful, for nobody was killed and the vessel was not further damaged. Seeing that there was no possibility of saving the ship, Captain Starkey gave orders for the crew to take to the lifeboats. The port boat left with some of the men under the first mate, and Captain Starkey took command of the starboard boat.

When the latter was about a quarter of a mile from the Torrington the submarine drew up close, and Captain Starkey and the men with him were ordered to go on board. They obeyed, and Werner took Starkey below and, after asking some questions, told him he was a pirate and would be taken to Germany and shot, while as for the crew they could swim. Directly afterwards Werner went on deck, the alarm rang for stations, and the submarine submerged and remained so for twenty minutes. Everyone of the twenty men who had been left on deck was washed off and drowned, and as regarded the men in the other lifeboat, the only assumption was that they were disposed of in some way or other. They were never seen or heard of again, although the sea was perfectly smooth and their boat was in perfect condition.

later witness heard that the Torrington was sinking. When witness arrived on the submarine he found two other British captains already there—Captain Draper of the Umvoti and Captain Ashfield of the Pettridge—both of whose ships had been sunk. Told He Was Lucky.

Mr. Gattie—Did you have any conversation with the members of the submarine's crew?

Yes, I was bemoaning my fate, and a man named Kuper, who was leading seaman, said, "You are lucky you have your life." On another occasion I was talking to the senior wireless operator, and he also said I was lucky to be alive, and added, "There are too many about now or I would tell you something more." I used to get the English wireless news every night from this man, and one night he said: "Your crew never got home. They were all drowned."

Witness went on to say that on April 14 the submarine sunk another ship, named the Tora. The captain was brought below by Werner and the submarine then submerged, as she had done after the Torrington was torpedoed. When she rose again Werner sent for witness and asked him if he would like to see a ship sink. For the sake of getting some fresh air he replied, "Yes," and he went up into the conning tower and saw the Tora a short distance away. She did not, however, sink until some time later.

Two or three days later another vessel was sunk by gunfire, and again the submarine submerged after the captain had been brought below. In neither case, as far as witness could see, was there any necessity for submerging. Witness was eventually landed at Heligoland and remained a prisoner until December, 1918. Before he left the submarine one of the officers gave him a piece of torpedo as a souvenir and a pass bearing the U-boat's number and the commander's name.

Replying to Doctor Bunker, Captain Starkey said the Torrington was chartered by the Italian State railways. He could not explain how it was that he was allowed to escape alive when he might become such an important witness. He supposed Captain Werner did not think he knew what had happened to the crew.

Doctor Bunker—Several German witnesses have stated that a British destroyer was approaching while this was taking place. Witness—There was no destroyer near, to my knowledge. If a destroyer had been approaching, the submarine would not have come to the surface twenty minutes afterward.

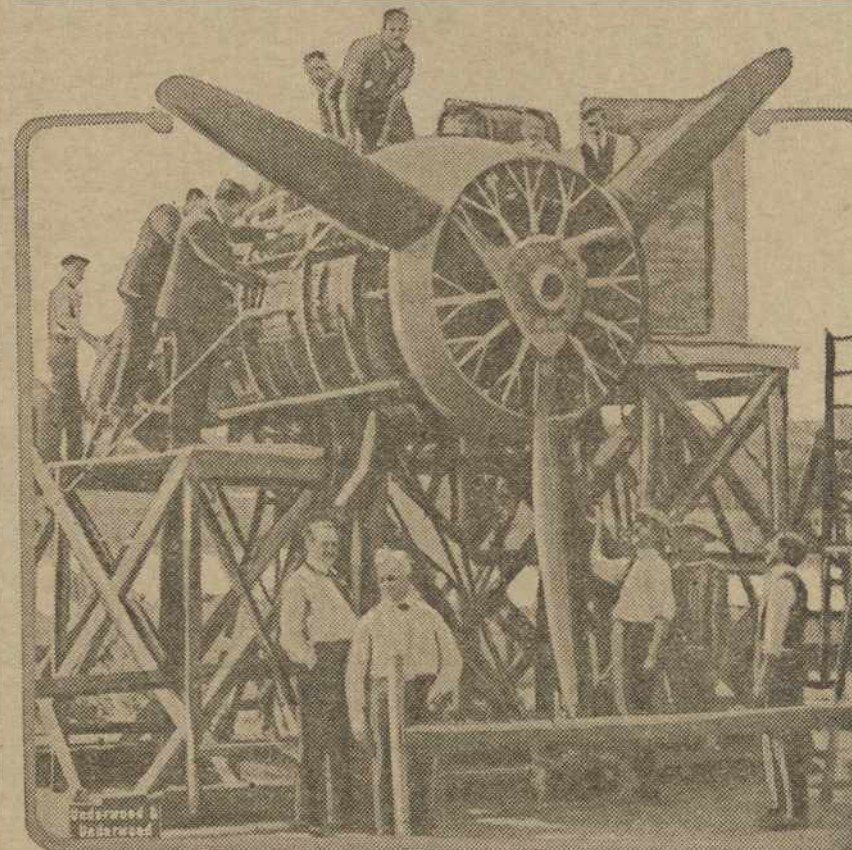
To inquire as to the welfare of an Arab's wife or daughter is regarded as an insult.

Red Cross Workers of Japan



These Japanese Red Cross workers are lined up in Tokyo ready to en-train for Siberia and Manchuria, where their services are greatly needed.

New Power Unit for Airplanes



This is the power unit of a new plane developed by the Galludet Aircraft company. The makers claim the new unit makes possible a 20-hour flight, from London to New York. A plane equipped with three or more such units, having a total of 4,000 horse power, could, it is said, cross the ocean with 12 tons of bombs. The unit here shown consists of three 400 horse power Liberty motors geared to one 18-foot propeller. The government has ordered three of the Galludet planes.