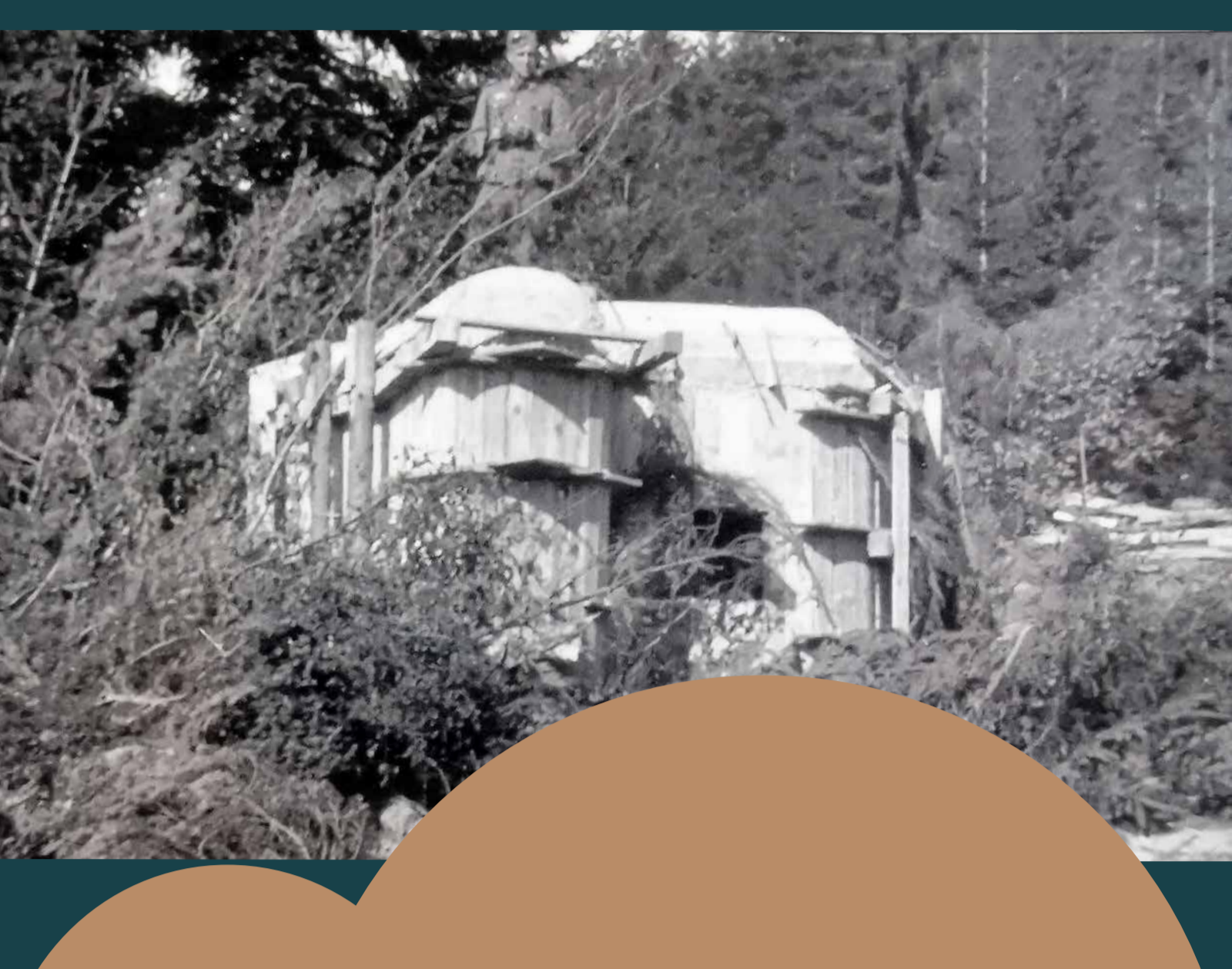


# CONSTRUCTION OF THE NEW TYPE LIGHT FORTIFICATIONS – „ŘOPÍK“

## PREPARING FOR CONSTRUCTION

Building of light fortification called „řopík“ started with determining of course of trail. Exploring of terrain and setting object followed, Solvent firms were addressed for the building. Conditions were Czech citizenship, state and moral reliability. The winner was usually the cheapest one. He had to give 5% guarancy. Armature iron, concrete and armour parts were given by army management. Army officer was commissioned with constructing supervision.



*„We cried like little kids. Our main headquarters was cursed.“*

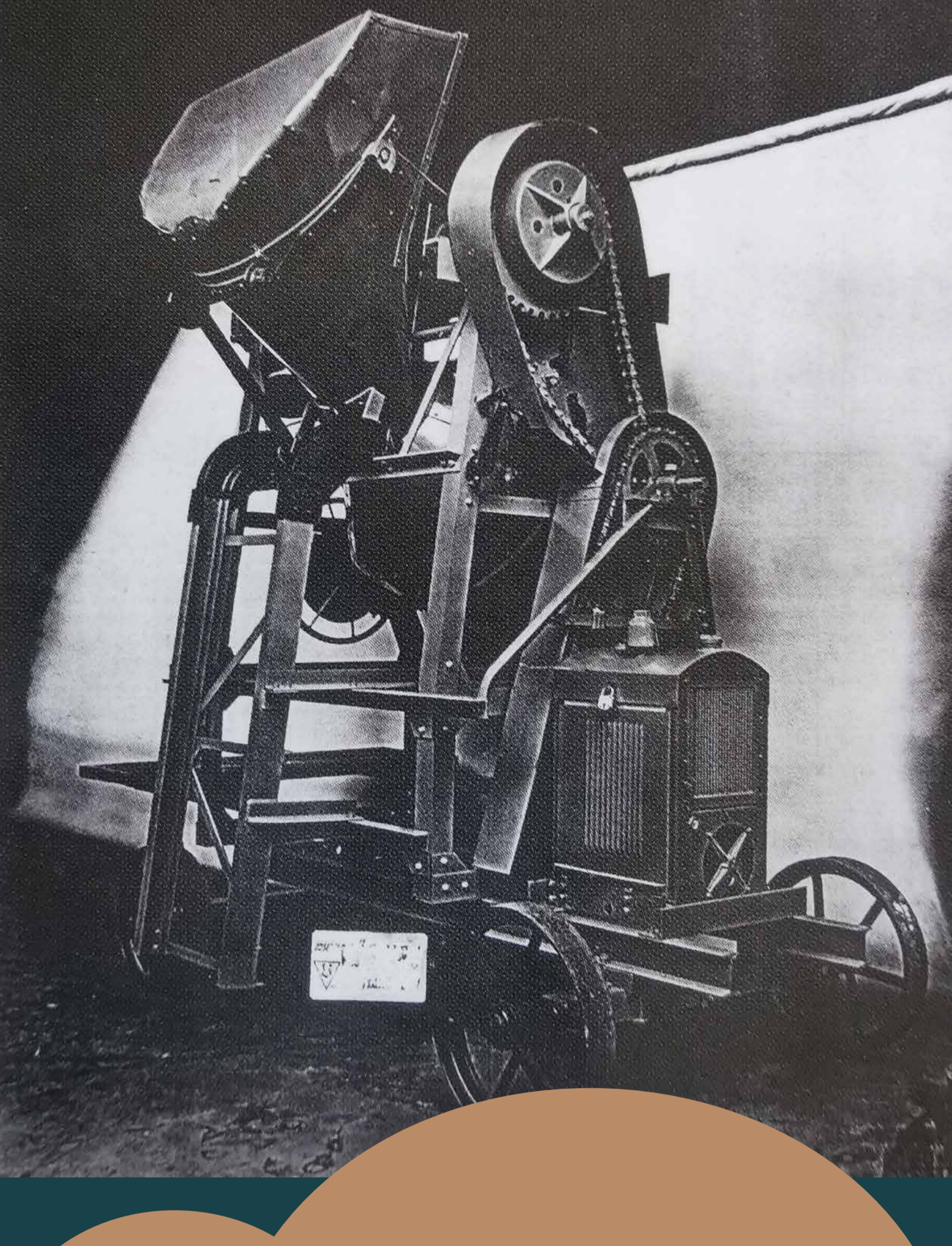
*„...instead of defence of Czechoslovakia I lived to see Munnich betray with taking part of the Allies and this way bad disappointing for our entire nation. ...“*

## CONSTRUCTING WORKS

Constructing works begun with digging, preparing of background and bringing the material. Digging was handmade. Material was brought by railway and then by horse vehicles, here and there by lorries. There was centre for concrete workers and stored sand and gravel. Cement was brought from the main store. It had reduced development of hydrating warm and prolonged time of solidification. Pre-prepared formwork and armature were finished just at the construction. Water was brought or taking from watercourses. Formwork from desks (33 mm thick) and tied armature from circular steel (10, 15, 20 mm diameter) were put on the prepared concrete or gravel ground. Steel parts like shooting windows, periscope tubes, grenade slides, and door frames and so on were placed where necessary in the same time. Cover of reinforments with concrete cover was 3,5 to 5 cm.

## FINISHING

Taking formwork off started 28 days after concreting and making concrete wet. The roof was covered with asphalt isolating strips. Plaster was waterproof (where it touches soil), the floor was made from 2 cm concrete. Very important work was to make some landscaping – putting some quarry stones in front the forehead wall, covering the roof with clay and sowing grass. Painting and equipment followed. In the end acceptance by supervisor and billing were done.



## CONCRETING

*Concreting of common object took about 18 hours. There were used 400 kg of cement, 600 litres of crushed stone 40/60mm, 300 litres of crushed stone 20/40mm and 390 litres of sand 0/10 mm for one cubic metre of concrete mix.*

*Put in mix was necessary well tamp dow with layers 15 cm. It was allowe to use attaching vibrators. Full amount of concrete for one object was about 65 cubic meters and 4700 kg armature iron. There were made three concrete test cubes from each object with presence of supervisor and representative of the construction firm. After 28 days there was tested strength of concrete which had to be minimum 45 MPa.destens 45 MPa erreichen musste.*

