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**MILITARY INTELLIGENCE DIVISION W. D. G. S.**

**MILITARY ATTACHE REPORT** G.S. No. \_\_\_\_\_  
(Country reported on)

Subject PANTHER "OP" TANK I. C. No. \_\_\_\_\_  
(Brief descriptive title)

From M. A. London Report No. R4256-45 Date 1 August 1945

Source and degree of reliability:  
21 Army Group Technical Intelligence Report No. 12 B-2

**SUMMARY.**— Here enter careful summary of report, containing substance succinctly stated; include important facts, names, places, dates, etc.

Reference Source Control No. AGF 10.

Examination of a semi-official provisional manual on the vehicle and interrogation of a German engineer indicate that the Germans had developed a Panther "OP" Tank (Panzer Beobachtungs Wagen Panther) based on the Panther Tank Model D. This vehicle was reportedly equipped with a dummy 7.5 cm gun and gun shield to the right of which was mounted a M.G.34 machine gun in a ball mounting. All-round traverse of the turret was provided and a crew of four was carried. Instruments mounted in the vehicle included a 125 cm base range-finder, an elaborate automatic plotting board, azimuth indicators, a retractable turret observation periscope and a commander's periscope. By means of these instruments original gun range and azimuth, as well as subsequent corrections based on observation of fire, could be measured and transmitted to tanks, self-propelled and field guns in communication with the OP Tank.

Although no reports have been received regarding the use of this Panther OP Tank by the Germans, Panther commander's tanks mounting the 7.5 cm Kw.K.42 were encountered in action in NW Europe.

The attached report includes photographs showing fire control instruments and internal stowage arrangements in the Panther OP Tank. This report will be of special interest to C.C.O. Detroit, Armored Vehicle Branch of AGF, Ordnance Research and Development Service, Armored Board and Foreign Materiel Branch of Aberdeen Proving Ground.

1 Incl: As above and microfilm 0625 W. J. BURRENBERGER  
Major, Ord. Dept.

OIA, American Embassy, London. 3 August 1945. Forwarded NDMH

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21 ARMY GROUP TECHNICAL INTELLIGENCE REPORT

No. 12

16 July 1945

Panther "OP" Tank (Pz Beob Wg Panther)1. General

The following information on a Panzer Beobachtungs Wagen Panther is taken partly from an undated semi-official provisional manual on the vehicle published by RHEINMETALL-BORSIG and partly from a preliminary interrogation of Herr Seligman of the firm of Anchtz of KIEL.

The vehicle described is based on the earliest type of Panther (Model D). It is equipped with a dummy 7.5 cm gun and mantlet, but has an M.G. 34 to the right of the dummy gun in a ball mounting in the turret front plate. The turret can be traversed through 360° and is fitted with six electrically fired smoke projectors as on the early Panthers.

The crew appears to consist of four men (commander, observer, W/T operator and driver). It is possible that a second W/T operator is located in the offside front of the vehicle, though this is not considered to be likely. The M.G. is presumably operated by the W/T operator or the observer.

So far as is known, this is the first detailed information to be received on the Panther "OP" tank though Panther commander's tanks mounting 7.5 cm Kw.K.42s have been encountered in action and mentioned in official German documents.

The German document describing the "OP" tank is mainly of interest in that it includes some photographs showing fire control instruments and internal stowage arrangements. These are produced at the end of this report as Plates 1 to 18. The quality of reproduction is poor, but is the best available at the time.

The instruments in this vehicle can measure original gun range and line as well as switches and corrections based on observation of fall of shot for transmission to tank, S.P. or field guns in communication with the "OP" tank.

2. Armament

The dummy main armament and mantlet are constructed of welded sheet metal. The gun is bolted to the mantlet which is bolted to the front of the turret. The mantlet only extends across about one third of the turret front.

The M.G. 34 is mounted in a ball mounting in the turret front plate to the right of the dummy main armament. It is sighted by means of the standard M.G. sighting telescope KZF 2 (magnification x 1.8). The M.G. can be traversed 5° left and right and has a maximum depression of - 10° and elevation of + 15°. An M.P.40 is carried loose in the vehicle, together with one signal pistol.

3. Optical instruments

The vehicle is equipped with the following optical instruments :

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- A 1.25 metre base rangefinder Em 1.25 m
- A turret observation periscope TBF 2 (Turmbeobachtungsfernrohr) and one spare
- A commander's periscope TSR 1 and one spare
- A scissors telescope
- An M.G. sight KZF 2 and one spare

(a) The rangefinder Em 1.25 m is located at the front of the turret and there are vision slots on either side of the turret front plate for the instrument. These slots can be closed by hinged cover plates from within the turret (see Plates 2, 3 and 4). The rangefinder is bolted to plates welded to the turret roof plate.

There is armour protection behind the vision slots in the turret front plate (see Plate 4) which can be dismantled when the rangefinder has to be installed or removed. The graticules on the rangefinder can be illuminated for use by night (see Plate 6). The rangefinder is made by Zeiss.

(b) The turret observation periscope TBF 2 is mounted in the centre of the turret (see Plate 8) in a ball mounting in the roof plate. It can be raised or lowered through  $14\frac{1}{2}$  ins. When it is in the lowered position the opening in the roof above the periscope can be closed by a hinged cover plate (see Plate 8). It can be traversed through  $360^{\circ}$ .

Two adjusting screws to the front and left of the periscope enable it to be tilted through  $10^{\circ}$ . The periscope can be clamped in any required position.

(c) A TSR 1 or a scissors telescope is mounted in an adjustable bracket at the front of the commander's cupola (see Plate 10).

#### 4. Other instruments

##### (a) Azimuth indicators

Both the commander and the observer are provided with azimuth indicators to show the amount the turret is traversed off the centre line of the hull. The commander's is of the normal tank pattern (see Plate 10). The indicator provided for the observer is located in the front of the turret just below the centre of the rangefinder (see Plates 6 and 7). It has two dials. The left hand dial has an inner scale graduated in clock hours from 1 to 12 and an outer scale graduated in hundreds of mils from 1 to 64. This dial is used for obtaining a rough reading only. A more precise reading can be obtained by using the right hand dial which has an outer scale graduated in mils from 0 to 100 and an inner correction disc used for concentrating the fire of a number of different guns on one point.

Presumably when a target is sighted, the turret is traversed until the commander is able to lay on the target with the aid of the sighting vane on the cupola. The observer should by then be able to pick out the target and lay accurately.

##### (b) Plotting Board - Blockstelle 0

An elaborate automatic plotting board made by the firm "Anschütz" of KIEL is installed in the turret just in front of the commander's cupola (see Plate 10). It is provided with a shockproof mounting consisting of "silent bloc" type bushes.

The following information was obtained by interrogation of Herr Seligman who is writing a paper explaining the working of the various

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instruments with which he was concerned. A full report on the Blockstelle will therefore be published later. The Blockstelle is still in the development stage and has not yet been tried out in action.

It is primarily an artillery instrument but can be used in AFVs and is intended for use in countries where maps are not available or are inadequate for artillery purposes. The Blockstelle is used to give initial range and line to the pivot gun and to give corrections based on observation of fall of shot.

The instrument is used for T.C.B. shoots, the distance OB being measured by the "OP" tank actually travelling from B to O and the distance OT by a rangefinder. The German Army requirement was for an equipment able to deal with OB distances up to 12,000 metres in any direction.

(c) Wireless

There is no description of the wireless equipment in the German document. Photographs indicate that one Fu Sprech f and one medium wave receiver ( M W E e) are carried together with "intercomn" equipment, one star aerial (presumably for the M W E e) and one rod aerial (presumably for the Fu Sprech f).

The Fu Sprech f equipment consists of a sender and receiver for R/T only and includes a loud speaker.

The M W E e appears to be a new type of medium wave receiver.

G.S.I.  
HQ 21 Army Group.

*R. Austin Harrison*  
*Major* B.G.S. 'I'

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late

with heavy armor and  
360° traverse.

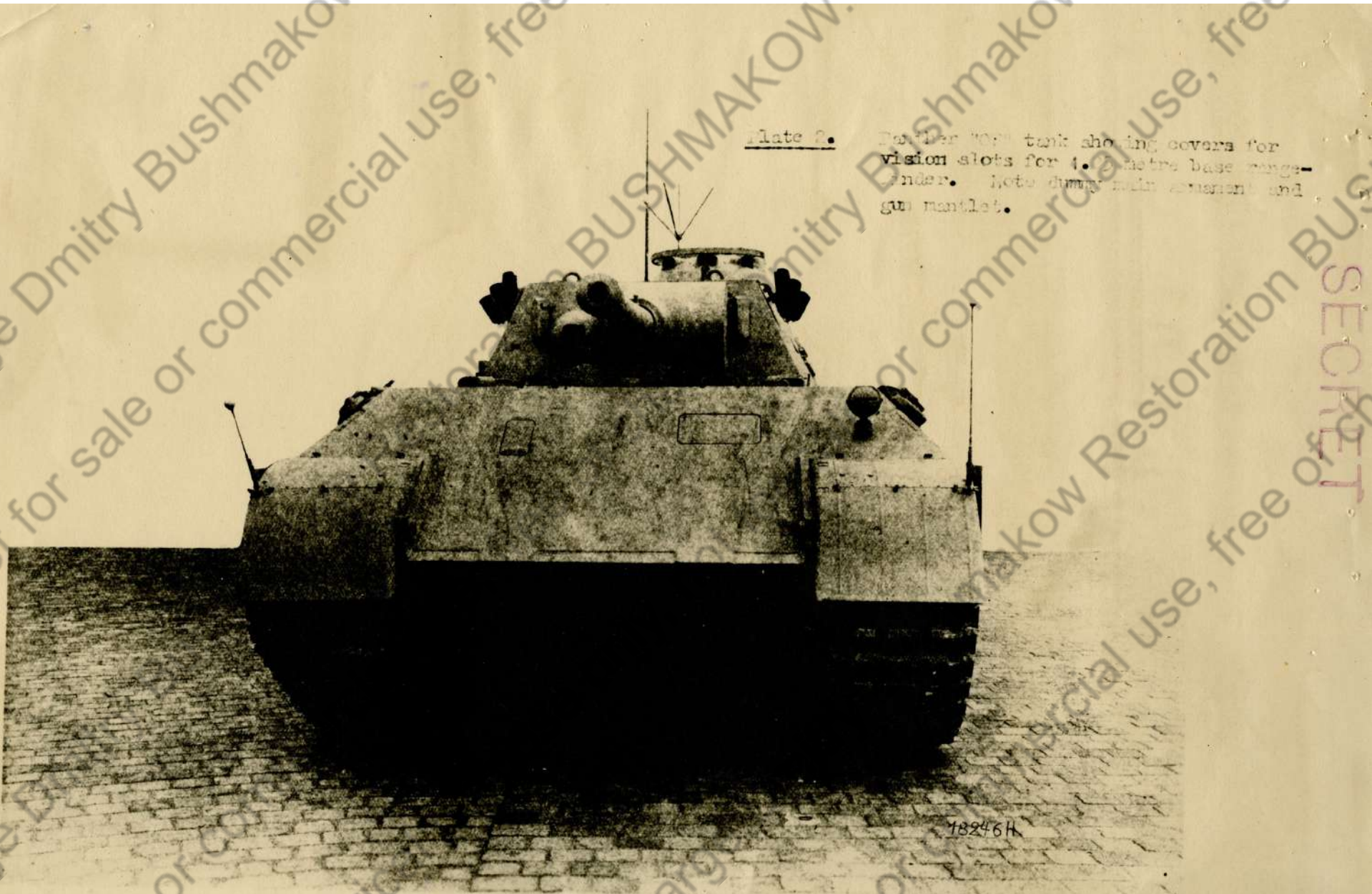


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Plate 2.

T-34 tank showing covers for vision slots for 4.5 metre base range-finder. Note dummy main armament and gun mantlet.



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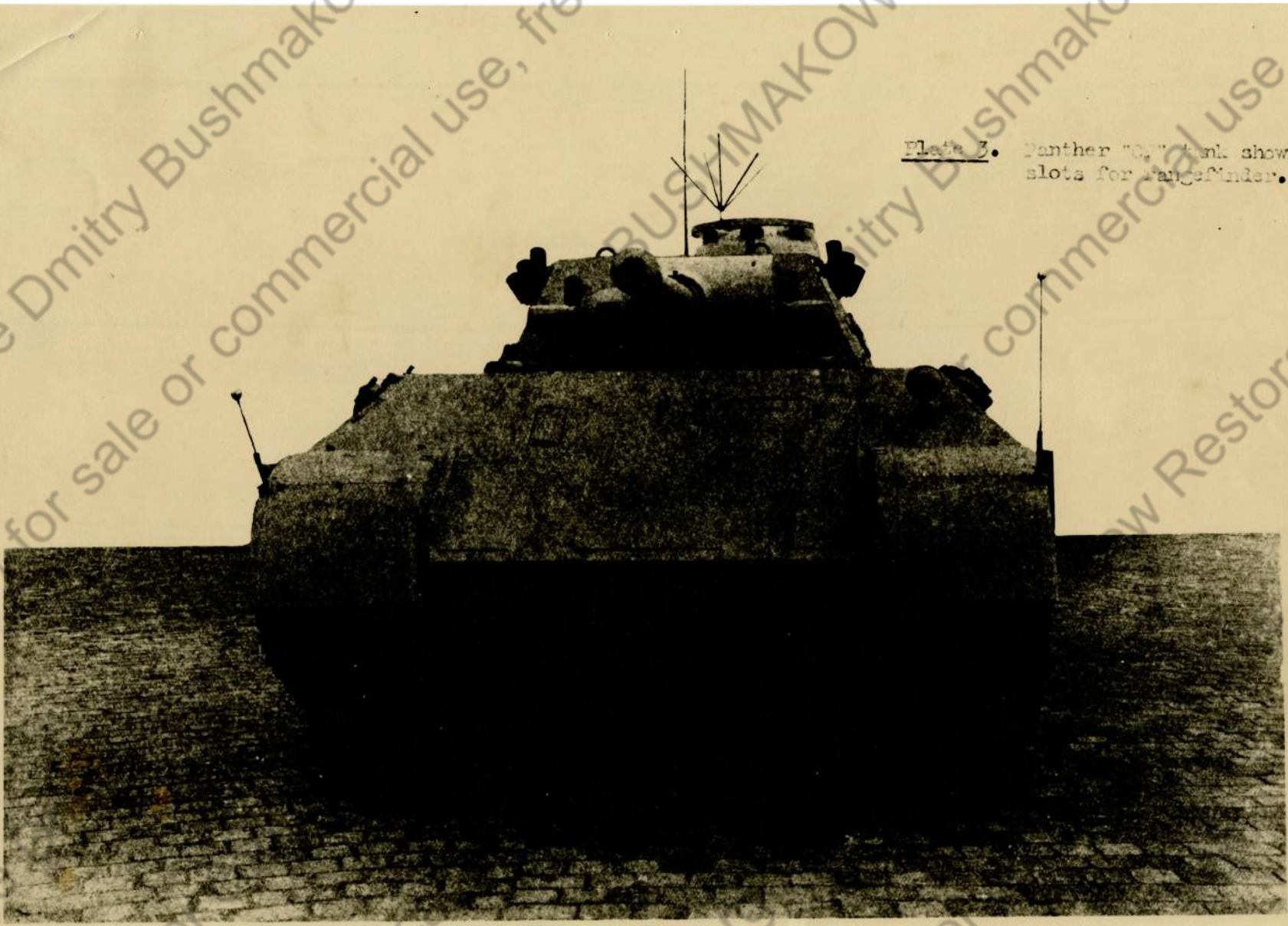


Plate 3. Panther "G" tank showing vision slots for rangefinder.

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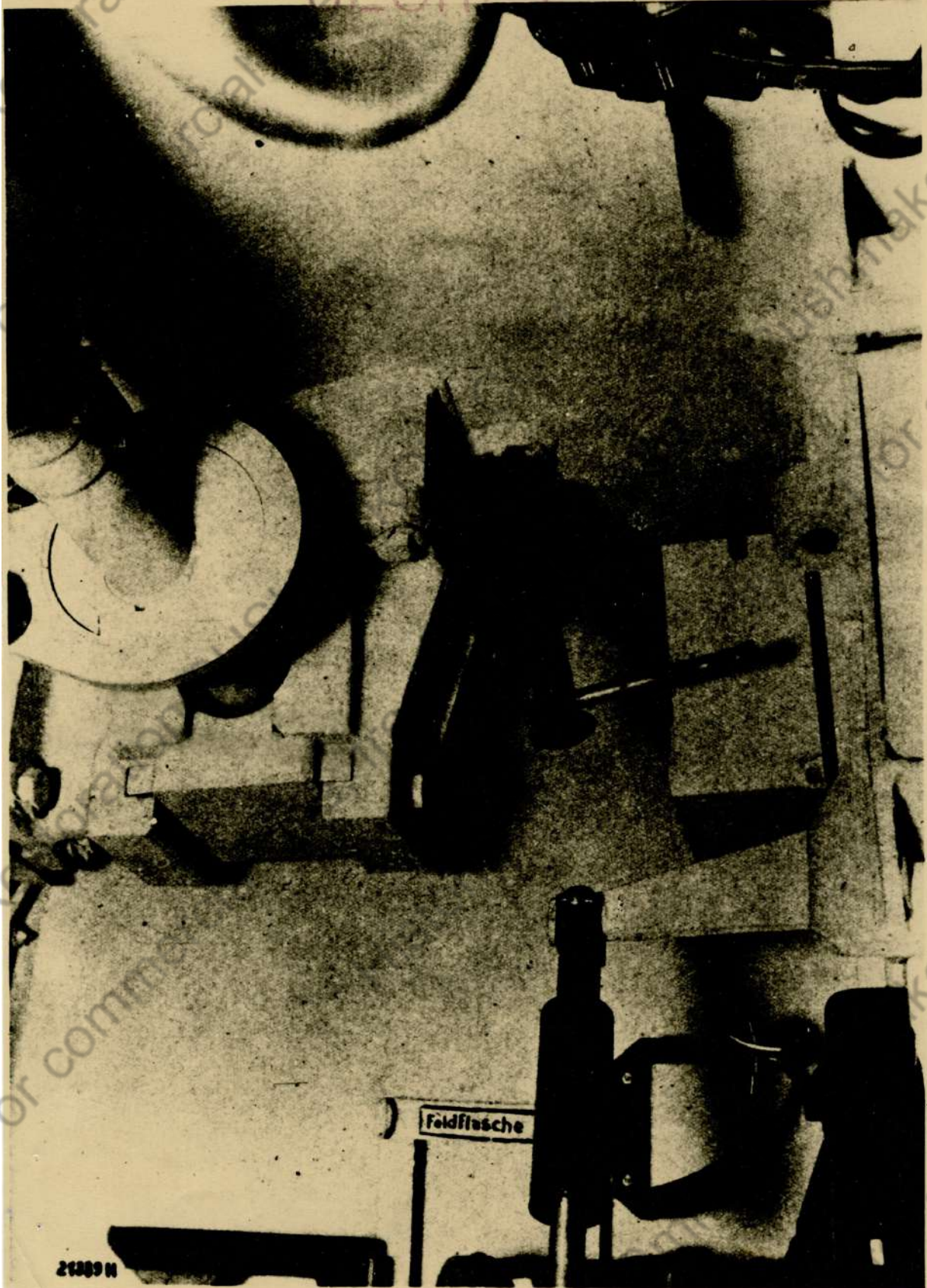
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Plate 4.

Internal view of turret showing armour protection behind the rangefinder vision slot on the nearside of the turret front plate. Note also the lever for opening and closing the vision slot.

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Feldflasche

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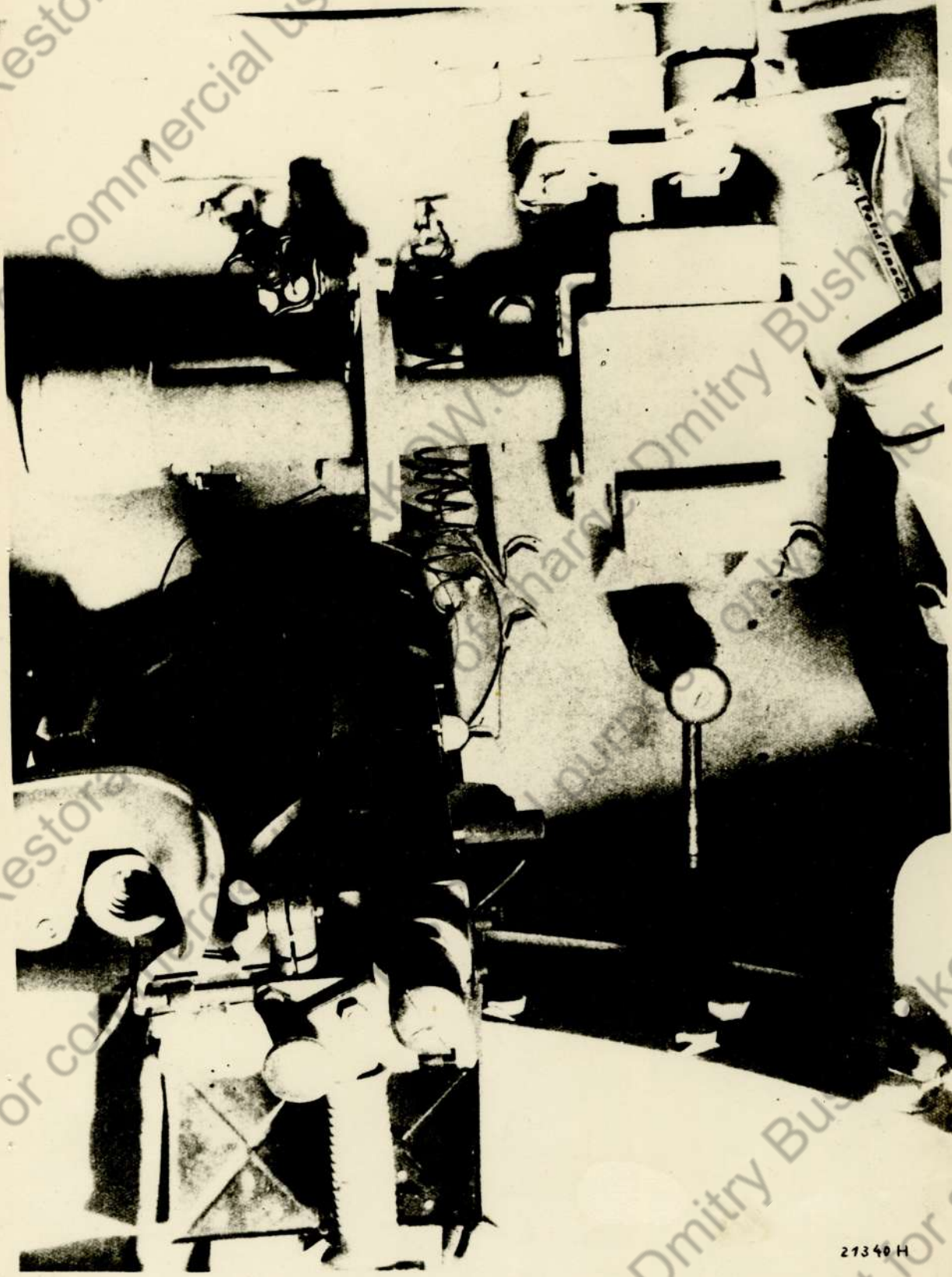
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... in ball rooming, part of the  
... the ... behind the offside  
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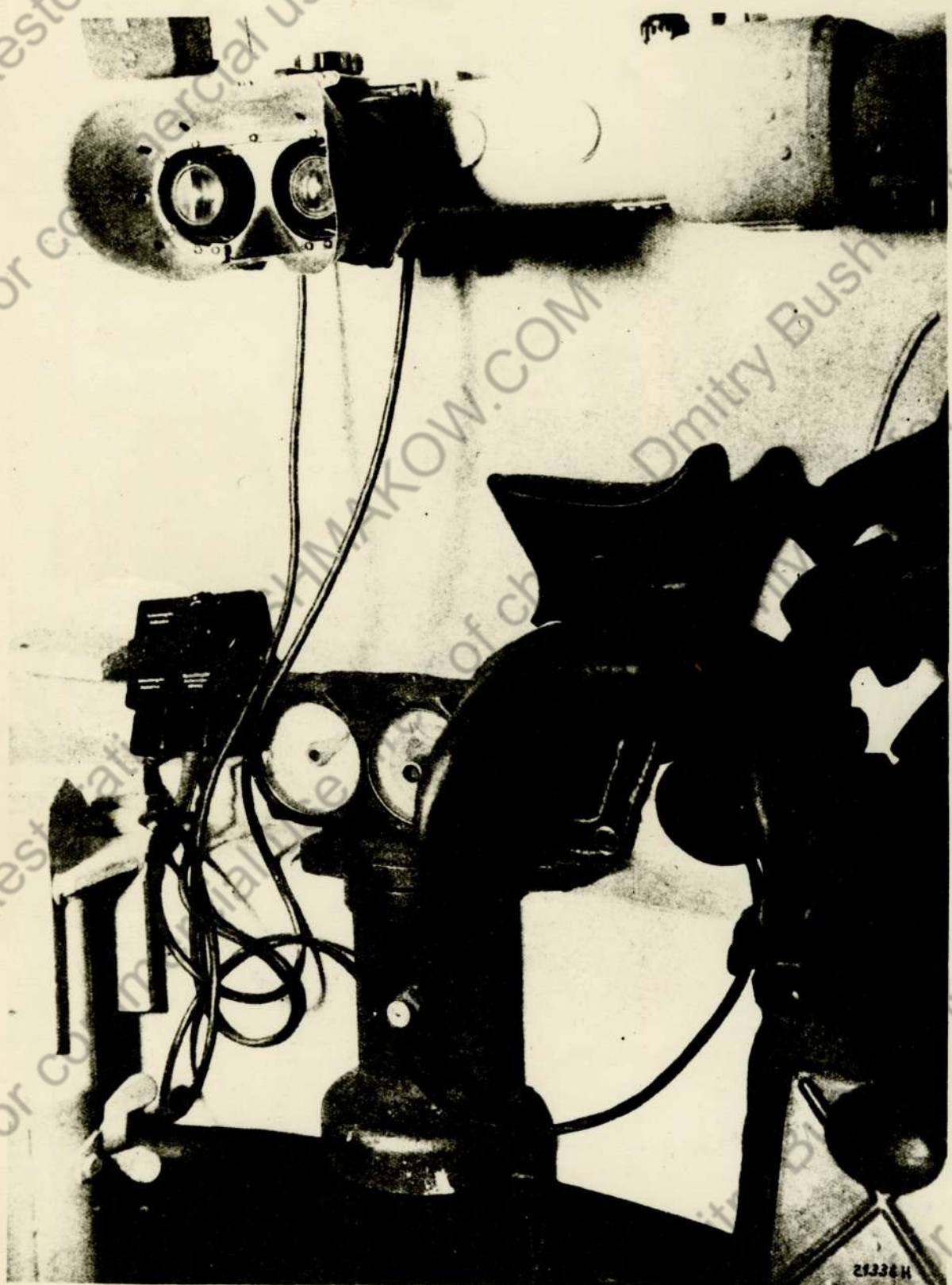
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View of ringette with portable measuring device.  
The electrical switch (bottom center) and  
RIF 2 being on the right are also shown.

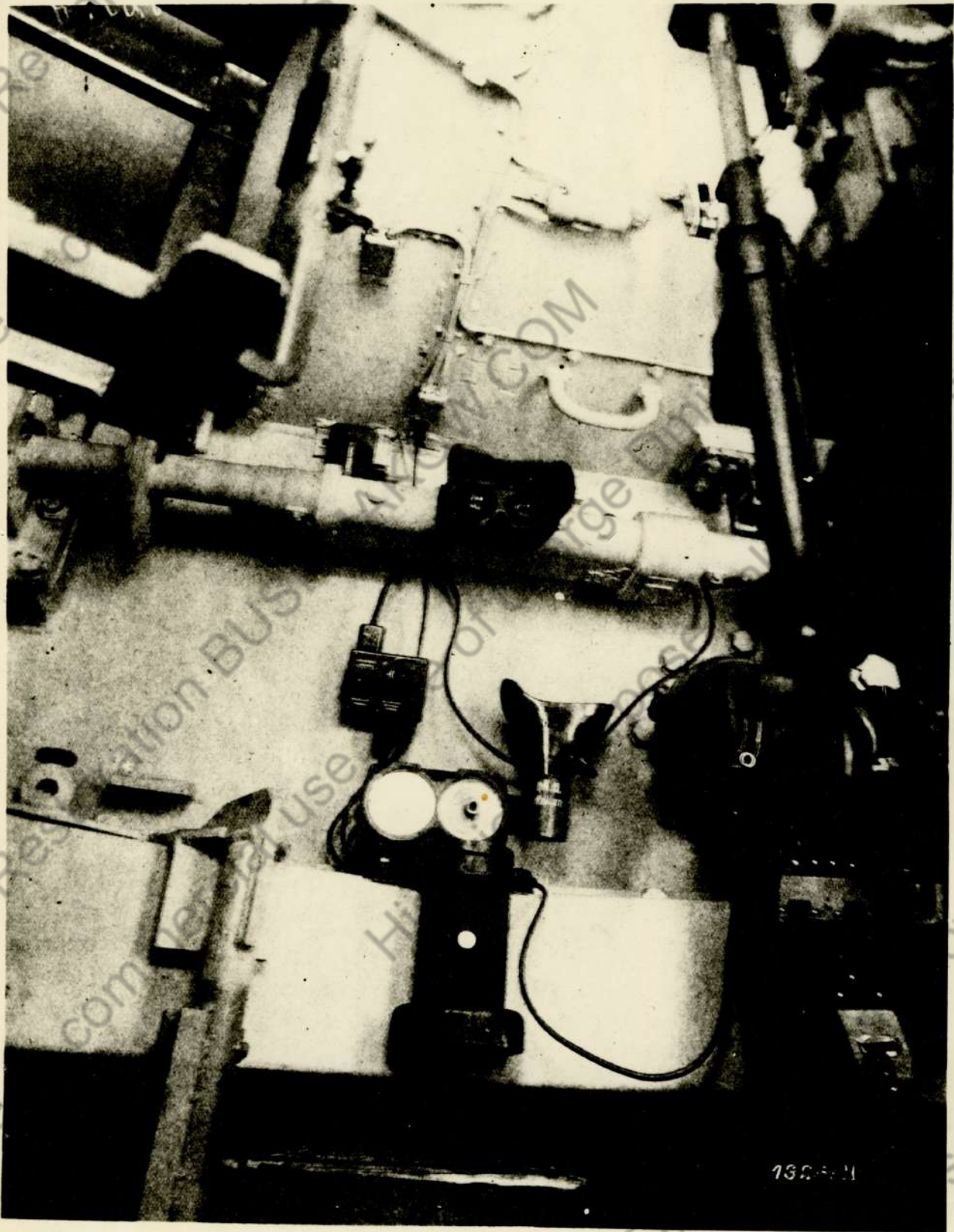


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Plate 7. General view of the observer's position showing rangefinder, azimuth indicator and KZF 2.

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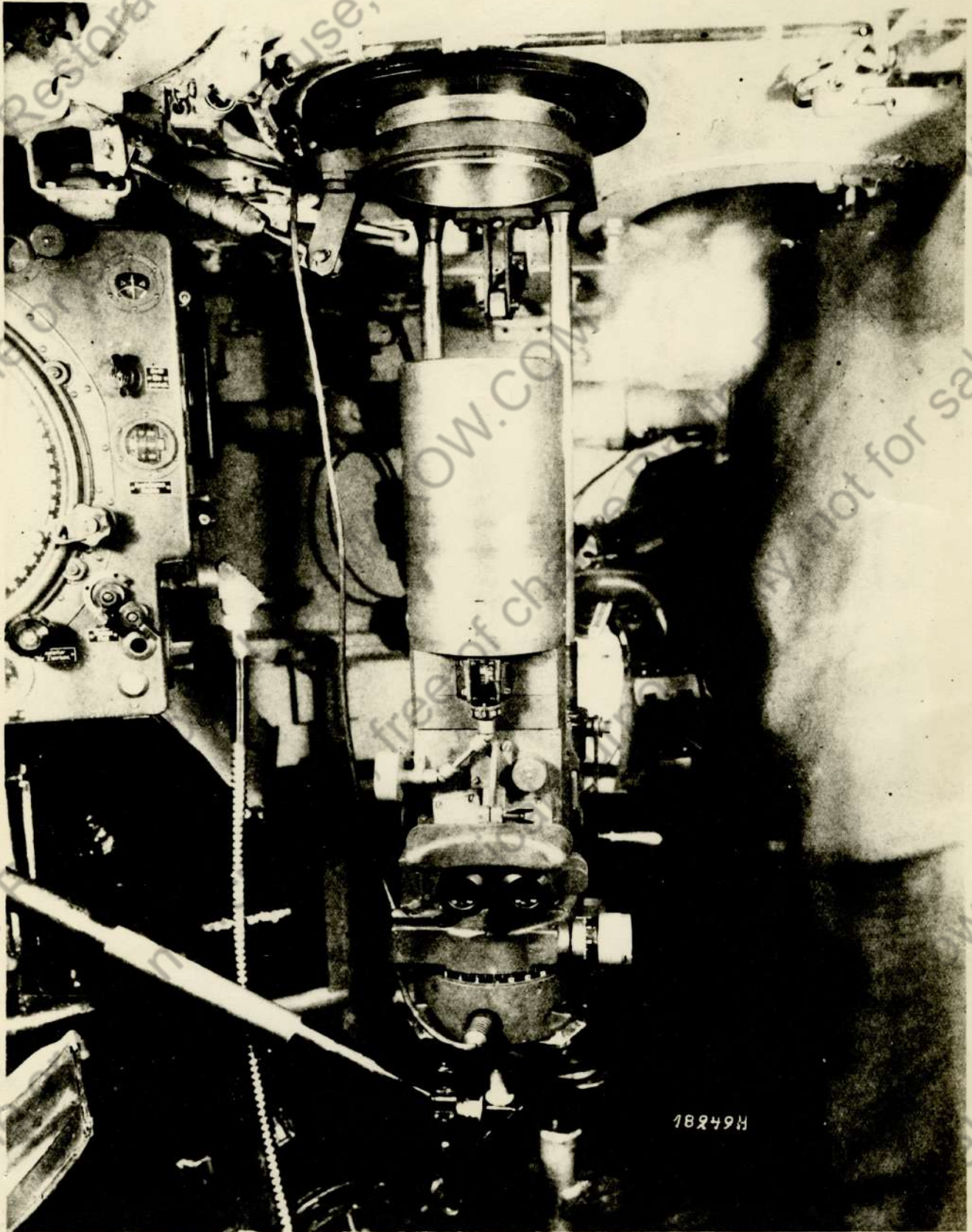
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Plate 8. View of MEF 2 (tank observation periscope) in lowered position.

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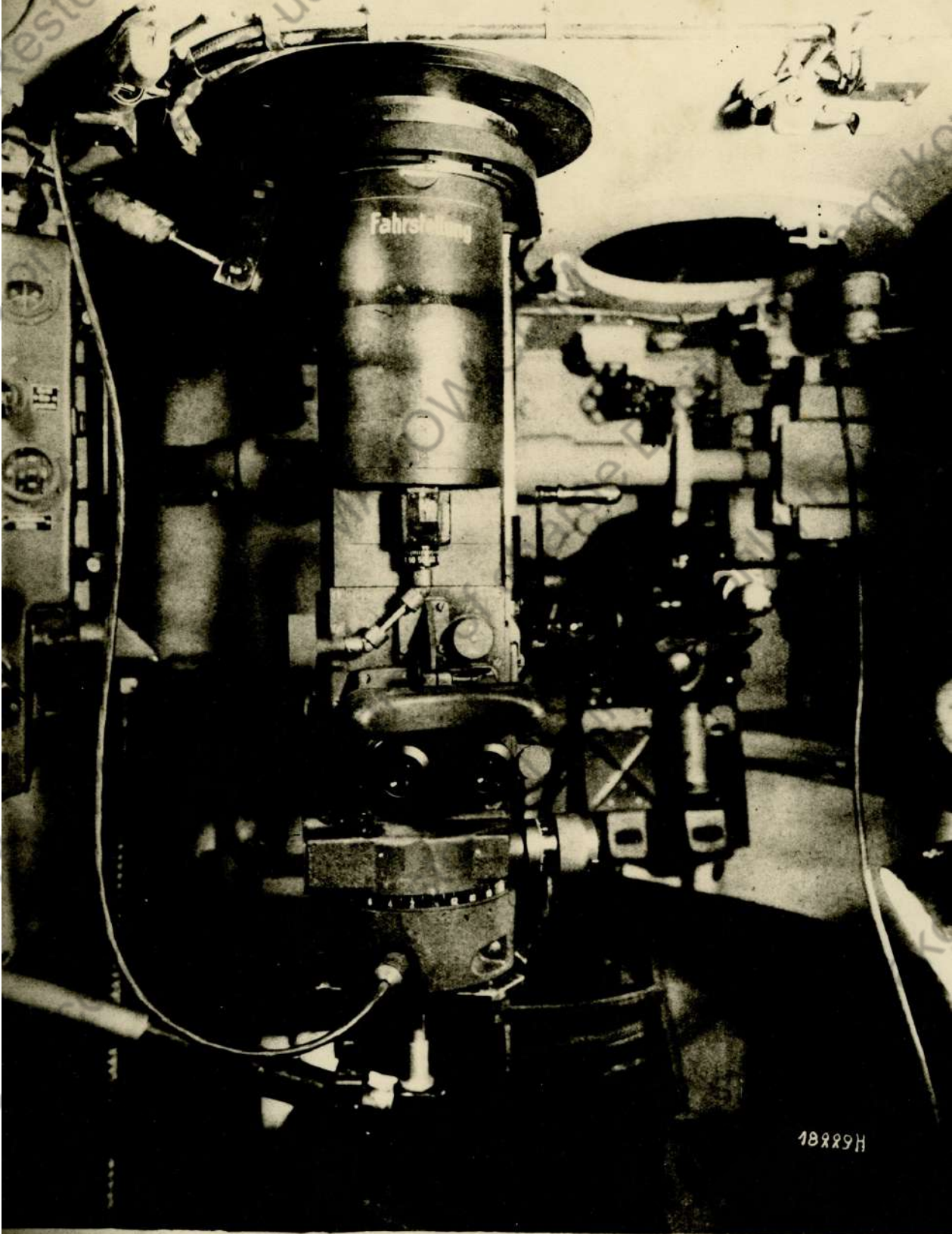
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Plate 9. MBF 2 in raised position.

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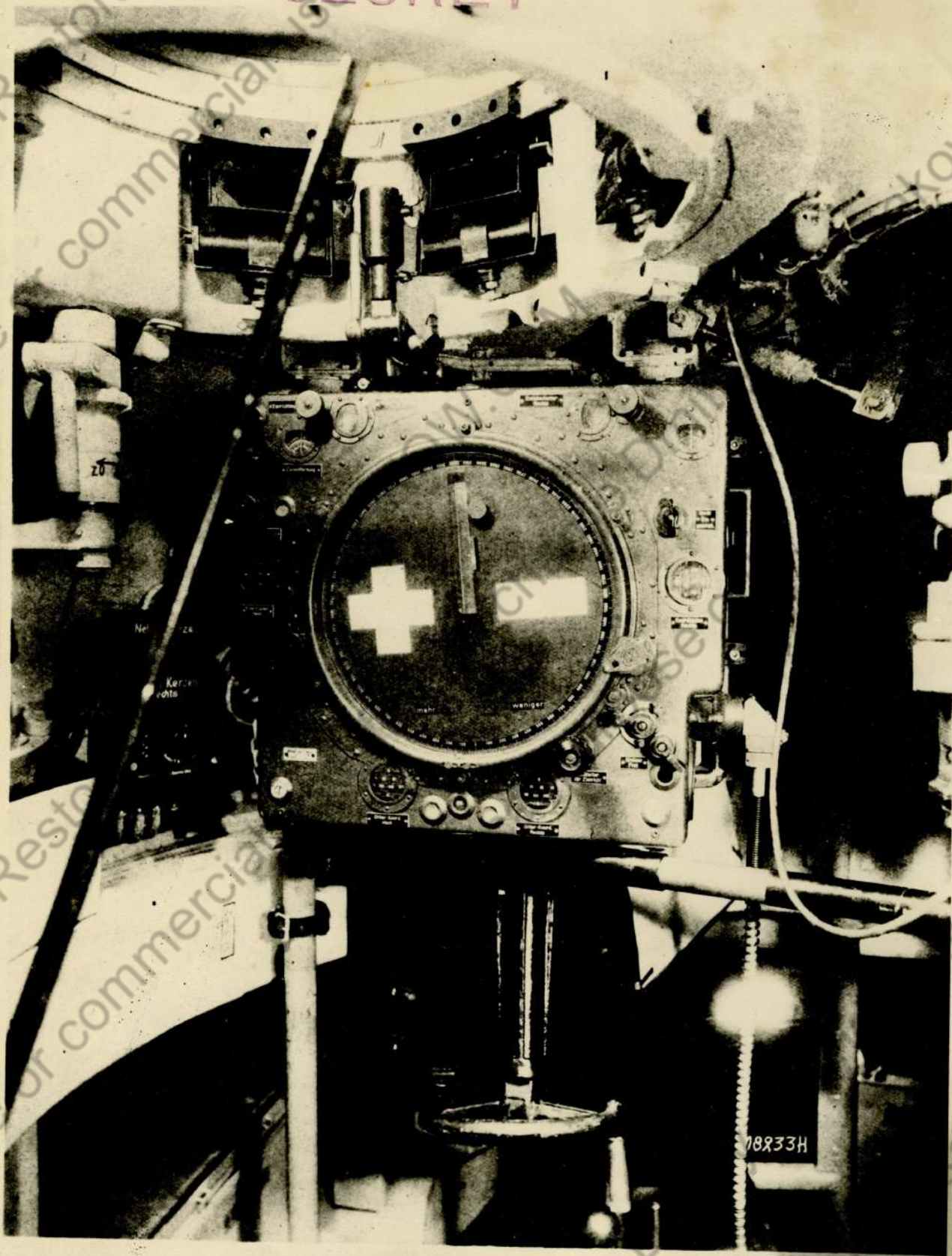
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Plate 10. View of plotting board, (Blockstelle 0) and Commander's cupola with azimuth indicator. Note the bracket at the front of the cupola for retaining the scissors telescope or Commander's periscope IIR 1.

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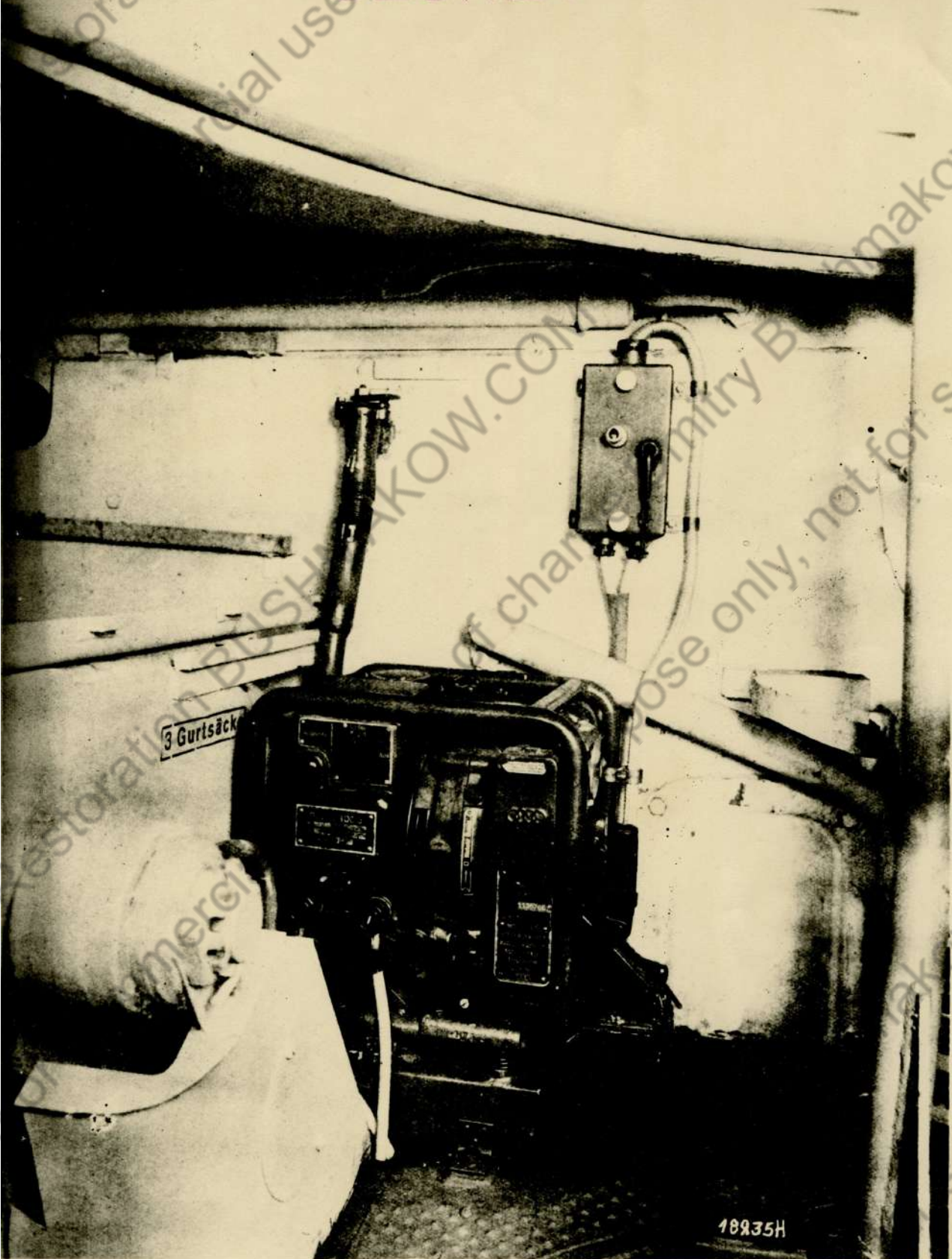
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Plate 11. View of internal stowage arrangement on offside of fighting compartment showing one of the battery charging sets.

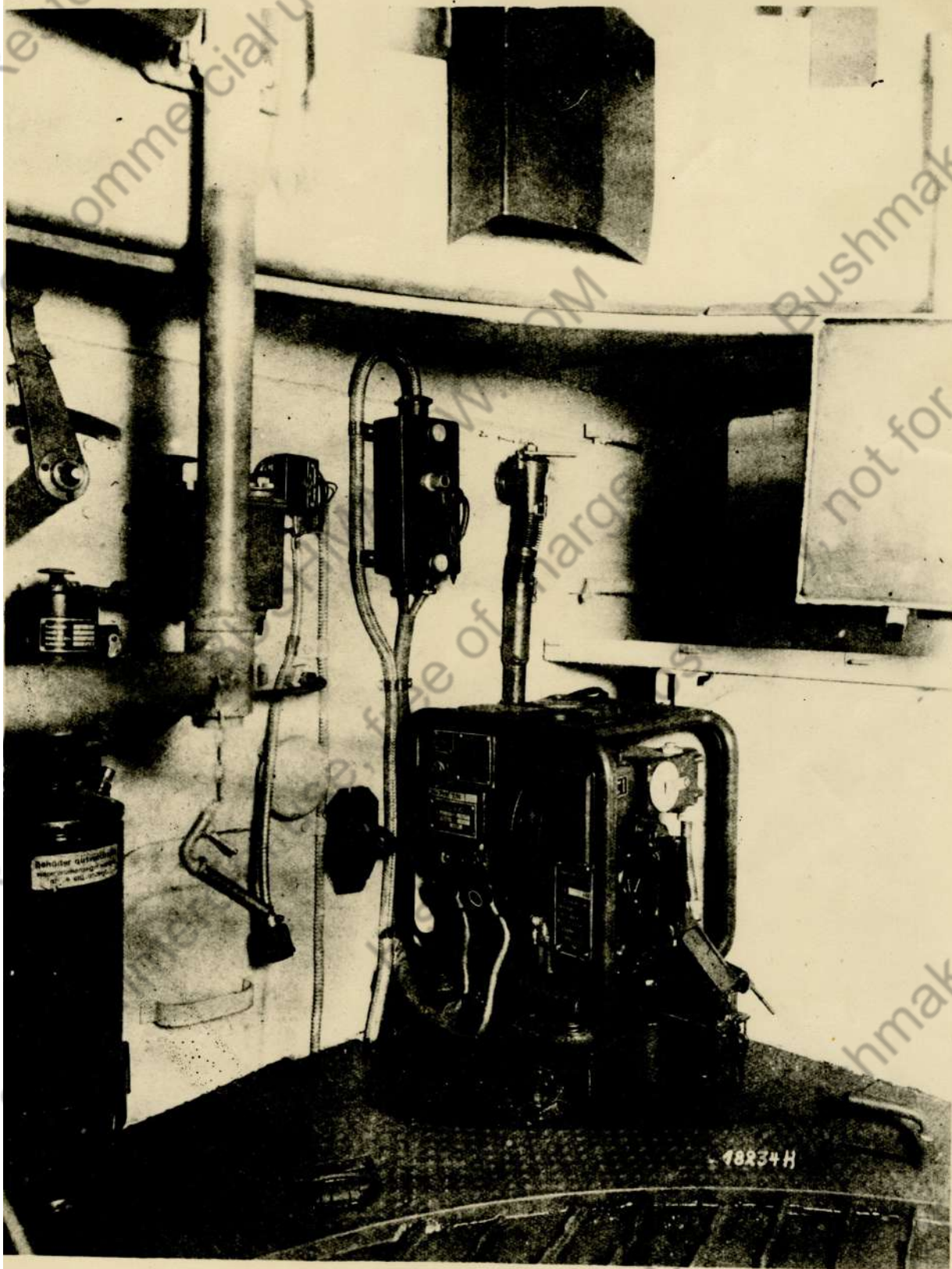
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late 1944. View of internal power arrangements on nearside of fighting compartment, showing the second battery charging set.



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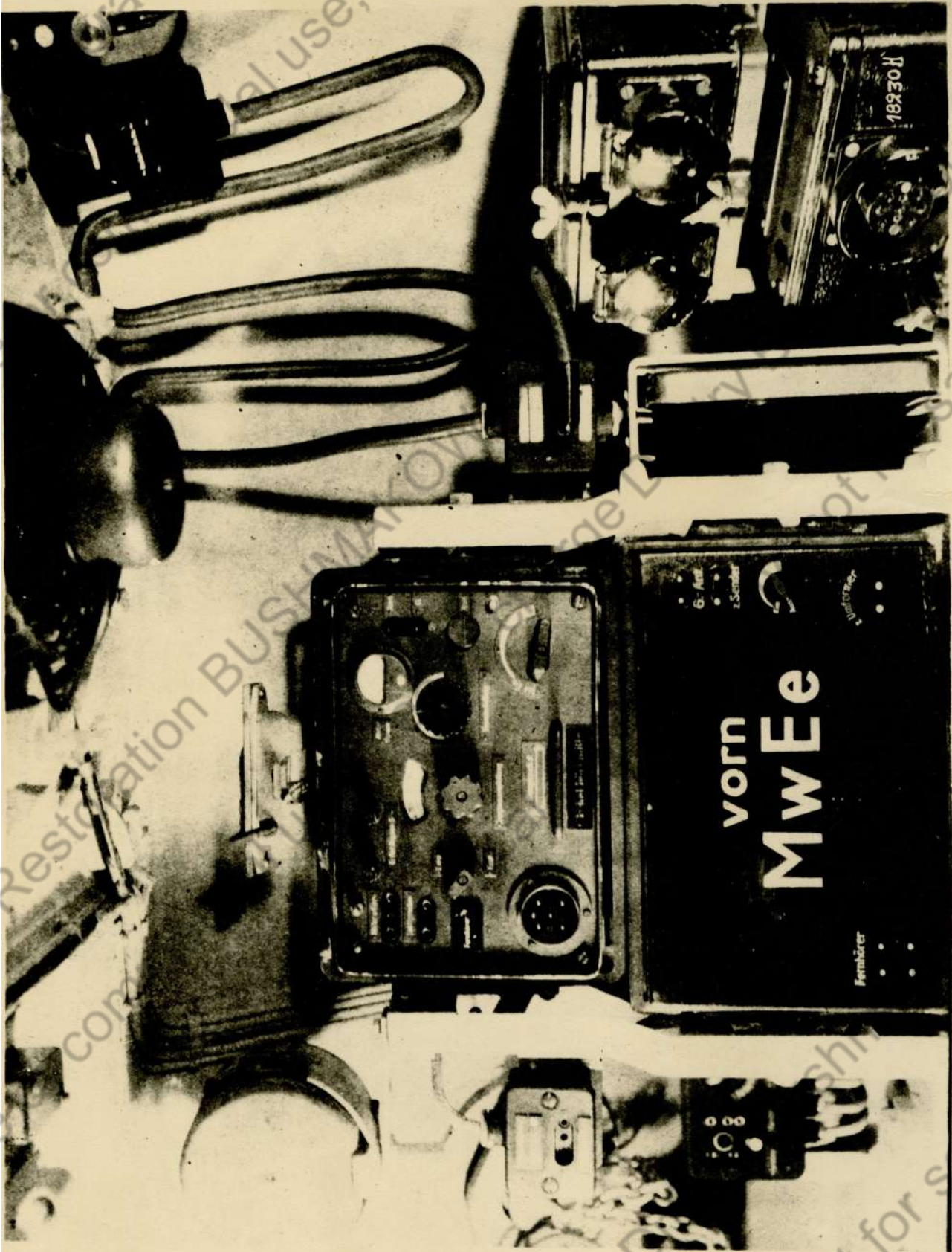
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Plate 13.

General view of the wireless equipment on the offside of the turret.

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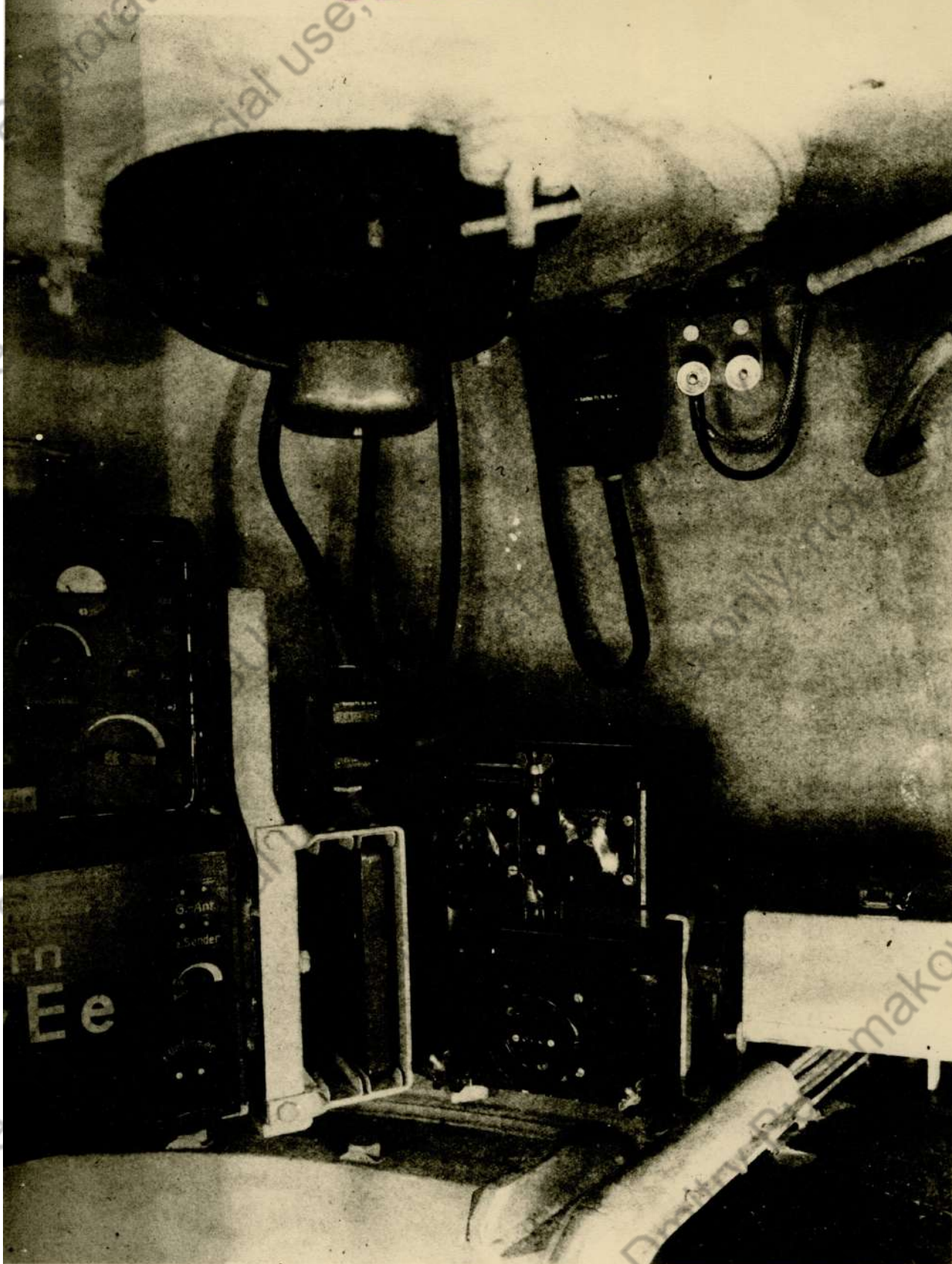
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Plate 14. Another view of the wireless equipment. Note the electric extractor fan in the turret roof.

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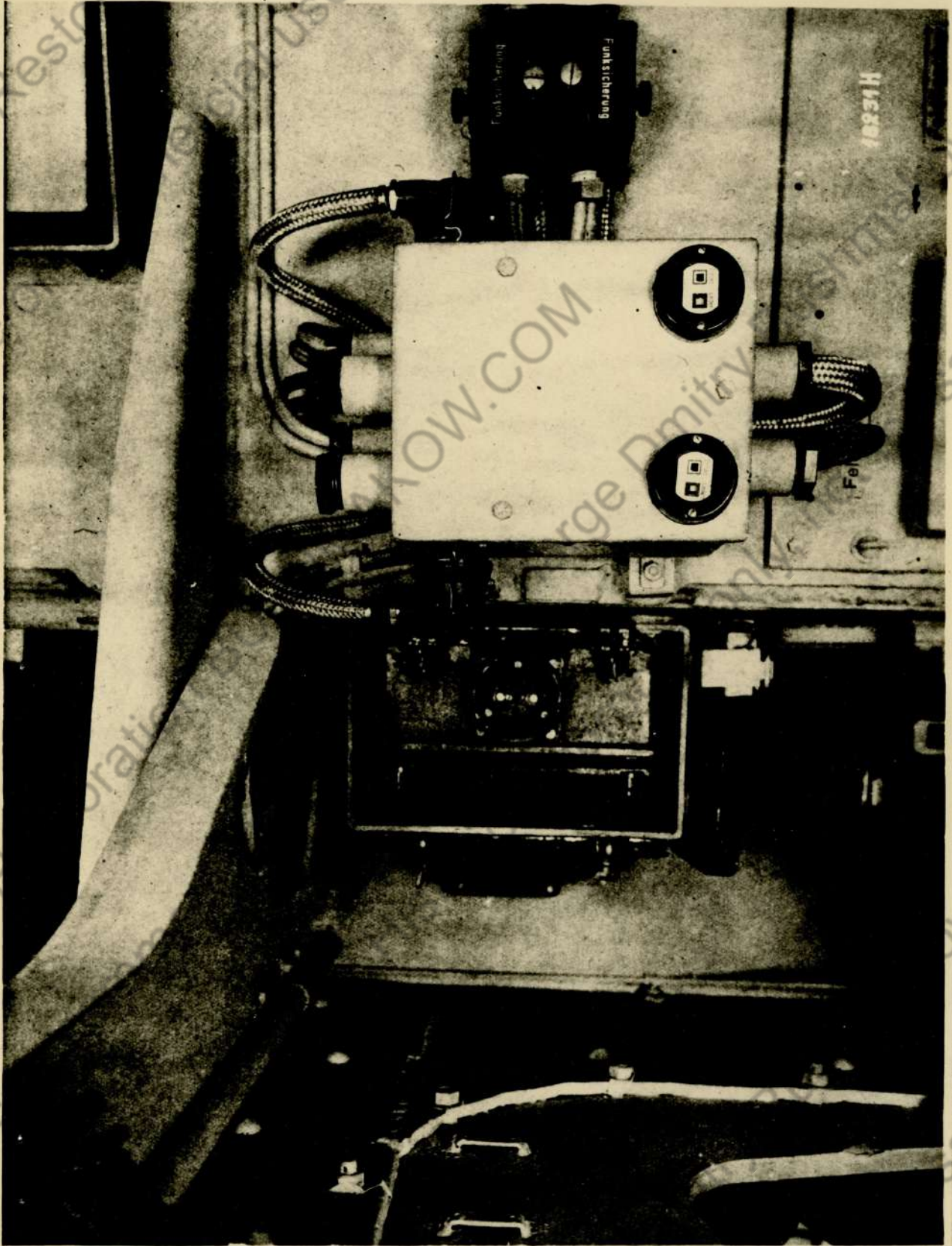
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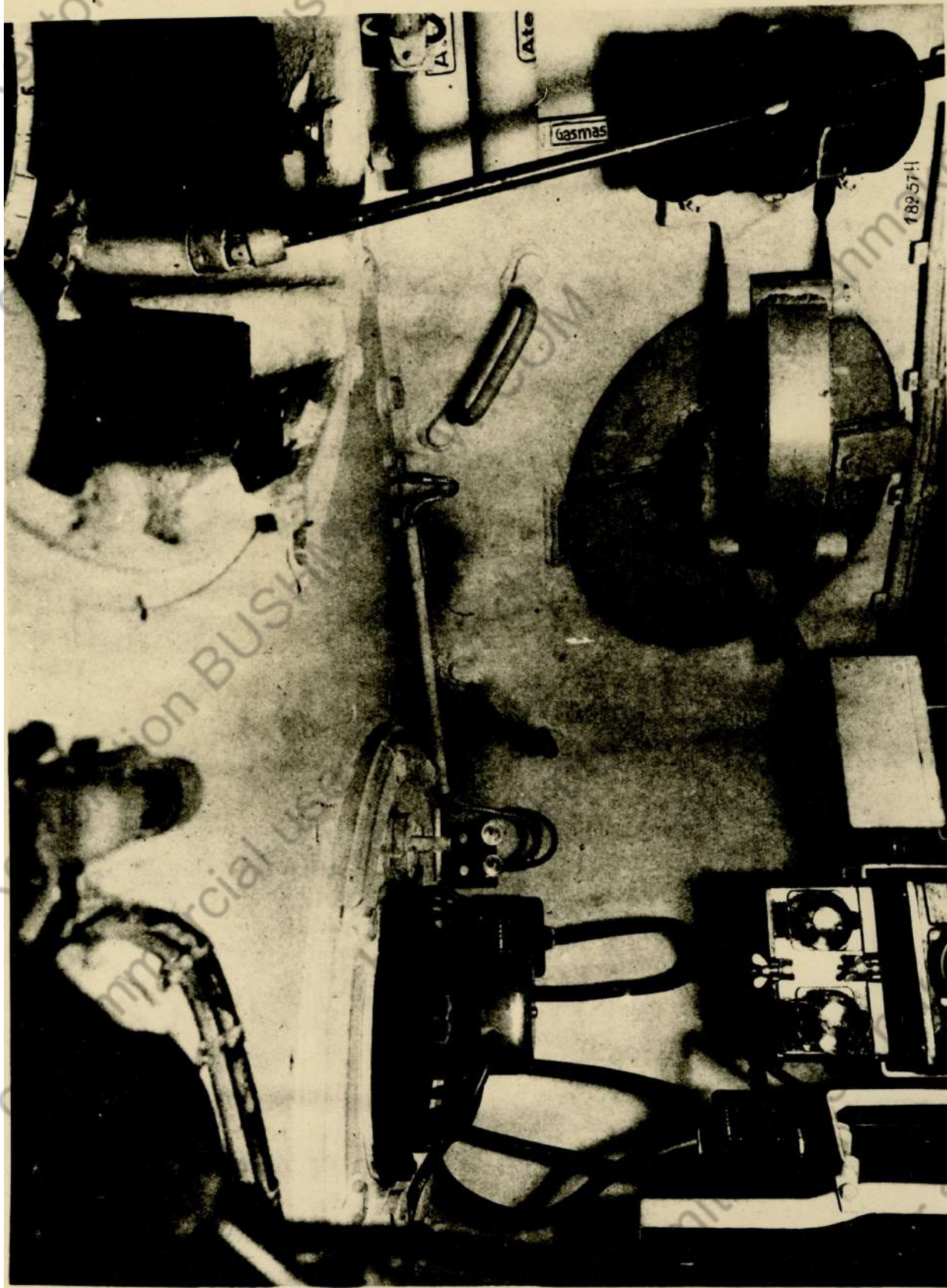
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Plate 16.

Remains of the current showing circular shape hatch in rear plate.

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Plate 17.

Additional  
features.  
View of outside  
front of  
lighting  
compartment.

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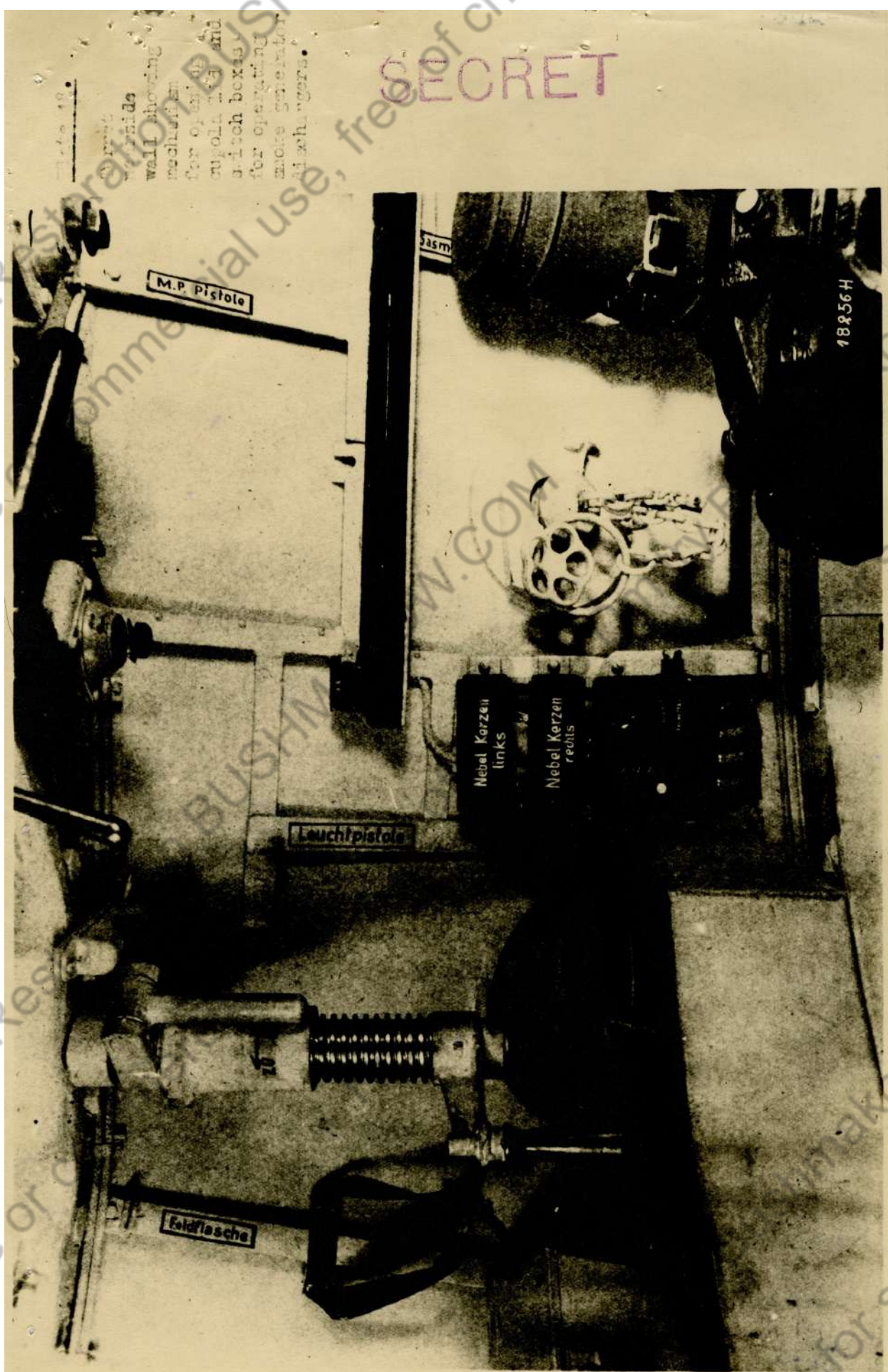
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The...  
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 mechanism  
 for operation  
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 which boxes  
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