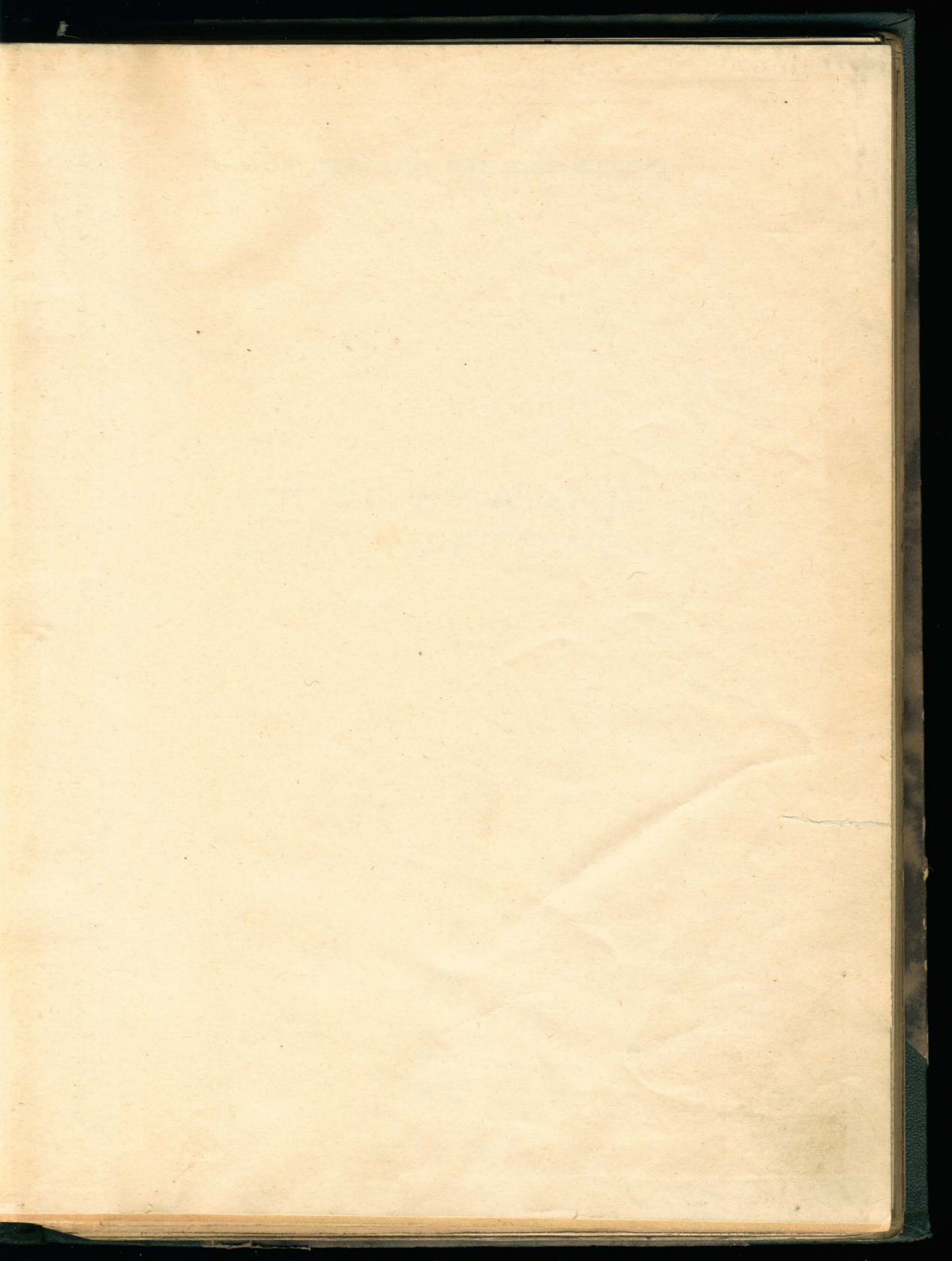
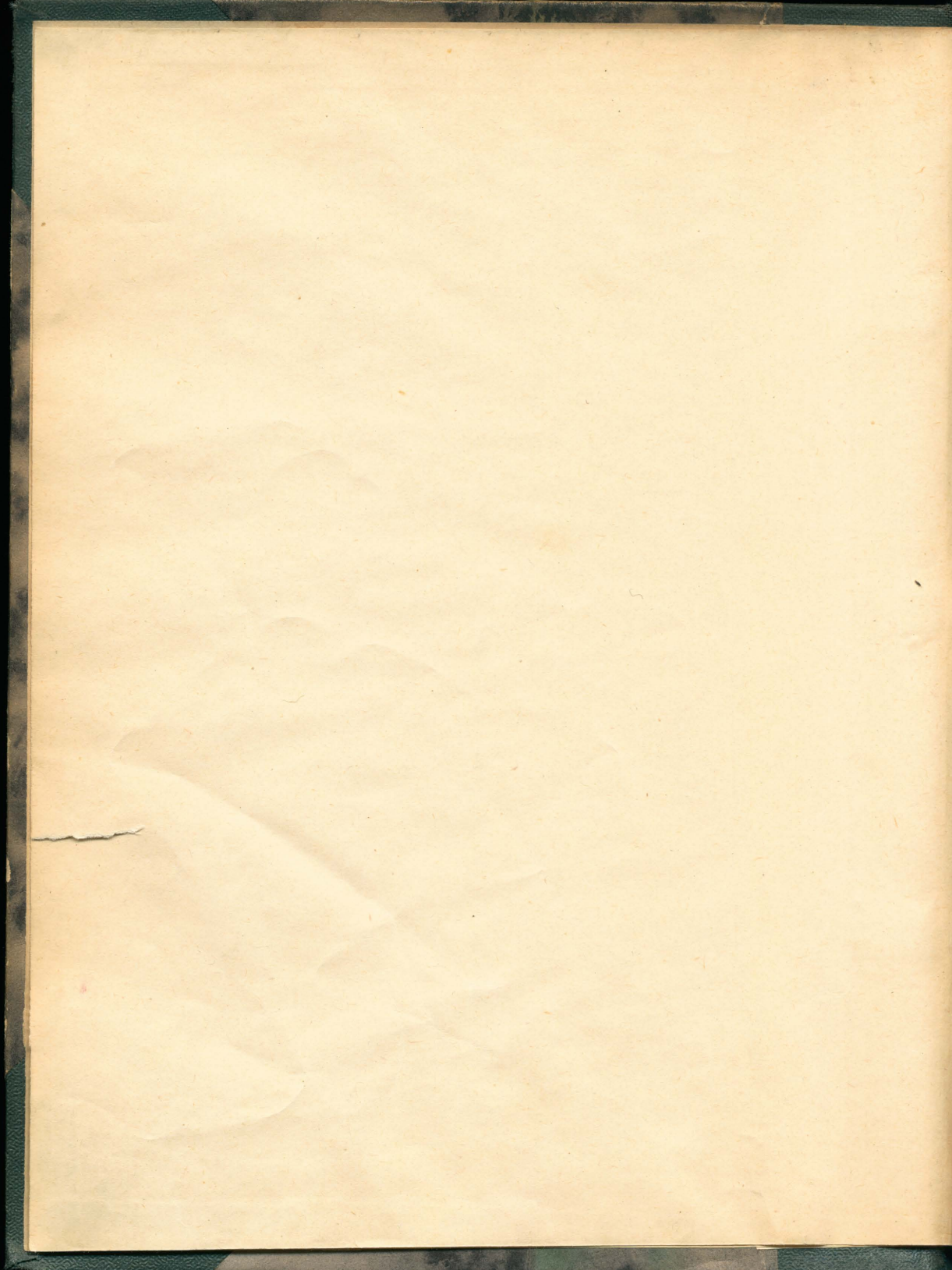


59 8 59





5.505.11/III.

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WYDOBYWANIE
ROPY NAFTOWEJ

RYSUNKI



KRAKÓW

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WYDOBYWANIE
ROPY NAFTOWEJ

RYSUNKI



KRAKÓW

BIBLIOTEKA GŁÓWNA AGH

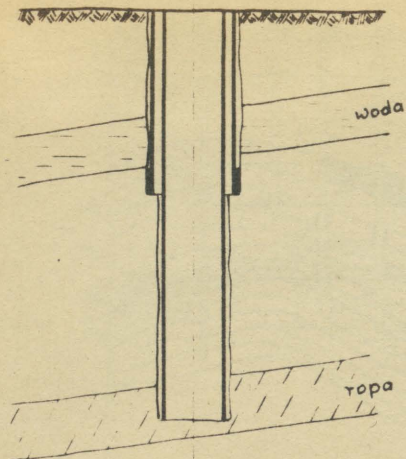


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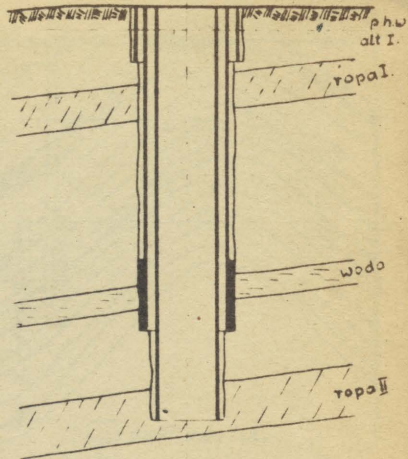


5505.111
III 31944

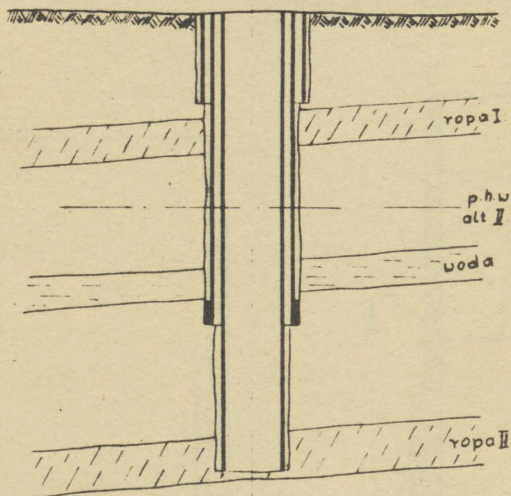
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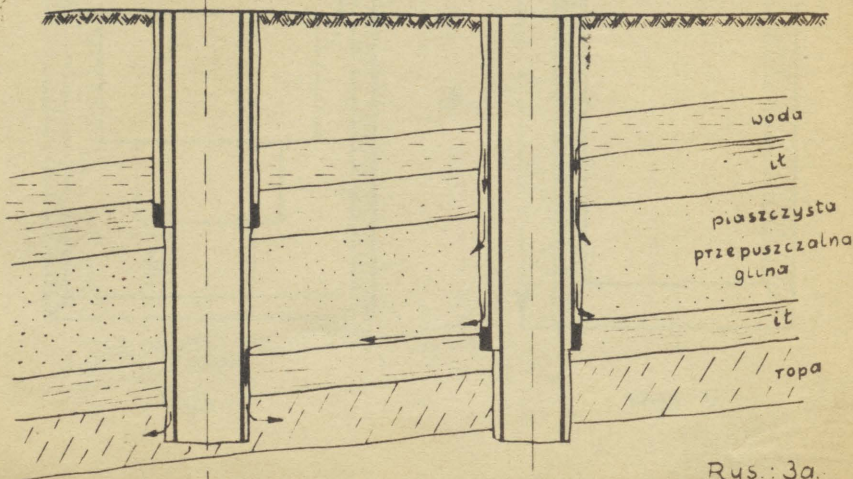
Rys. 1



Rys. 2

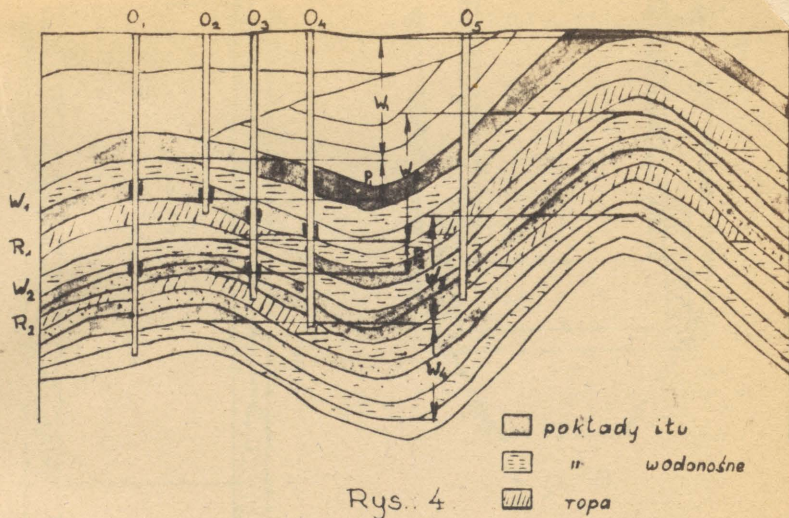


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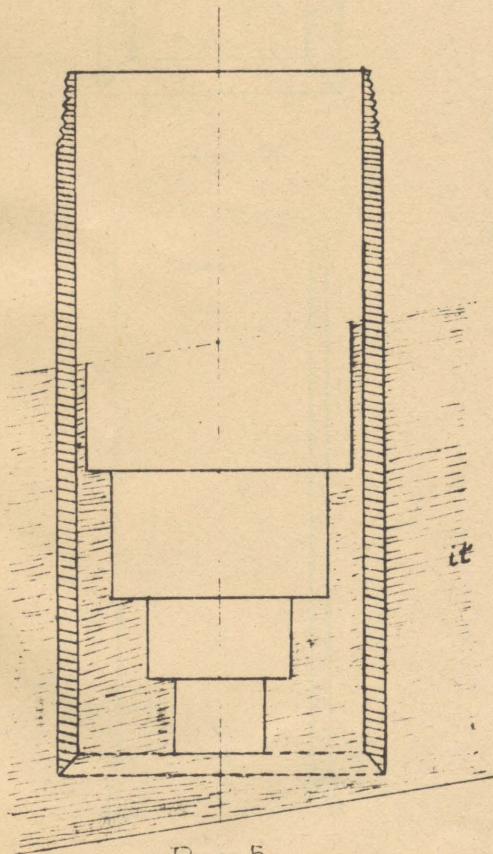


Rys. 3a.

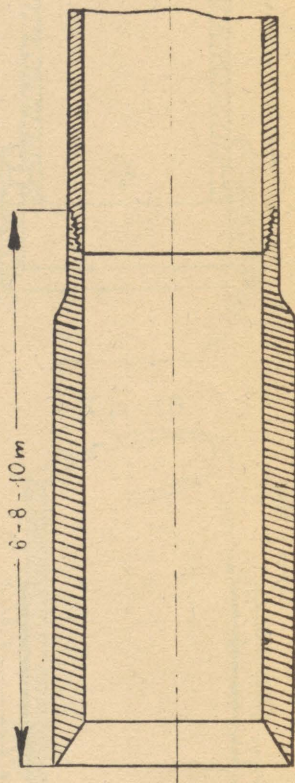
THE UNIVERSITY OF CHICAGO
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Rys. 4

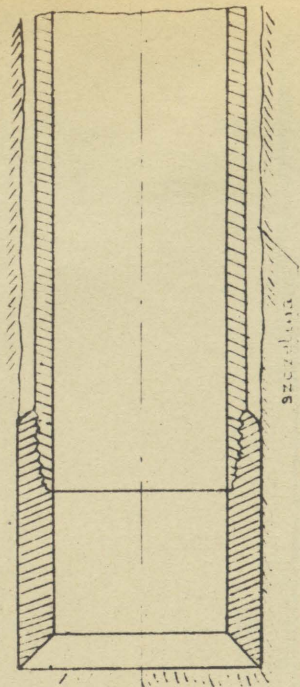


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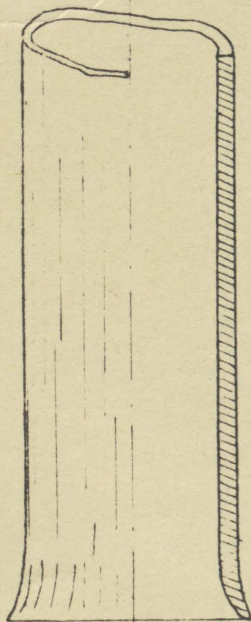


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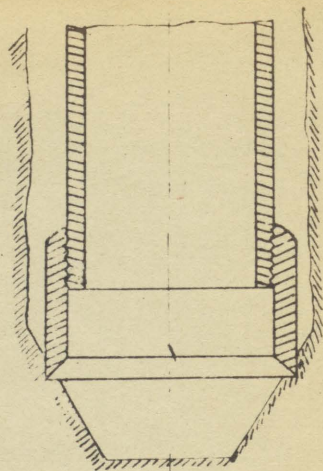




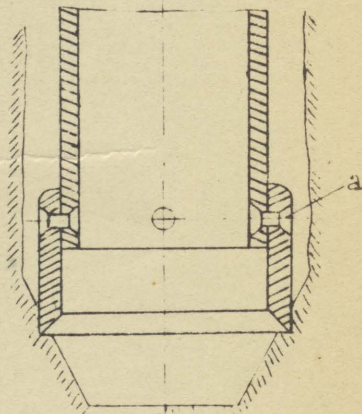
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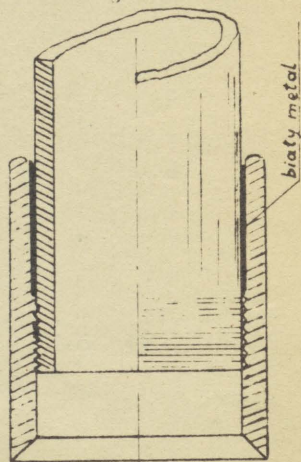
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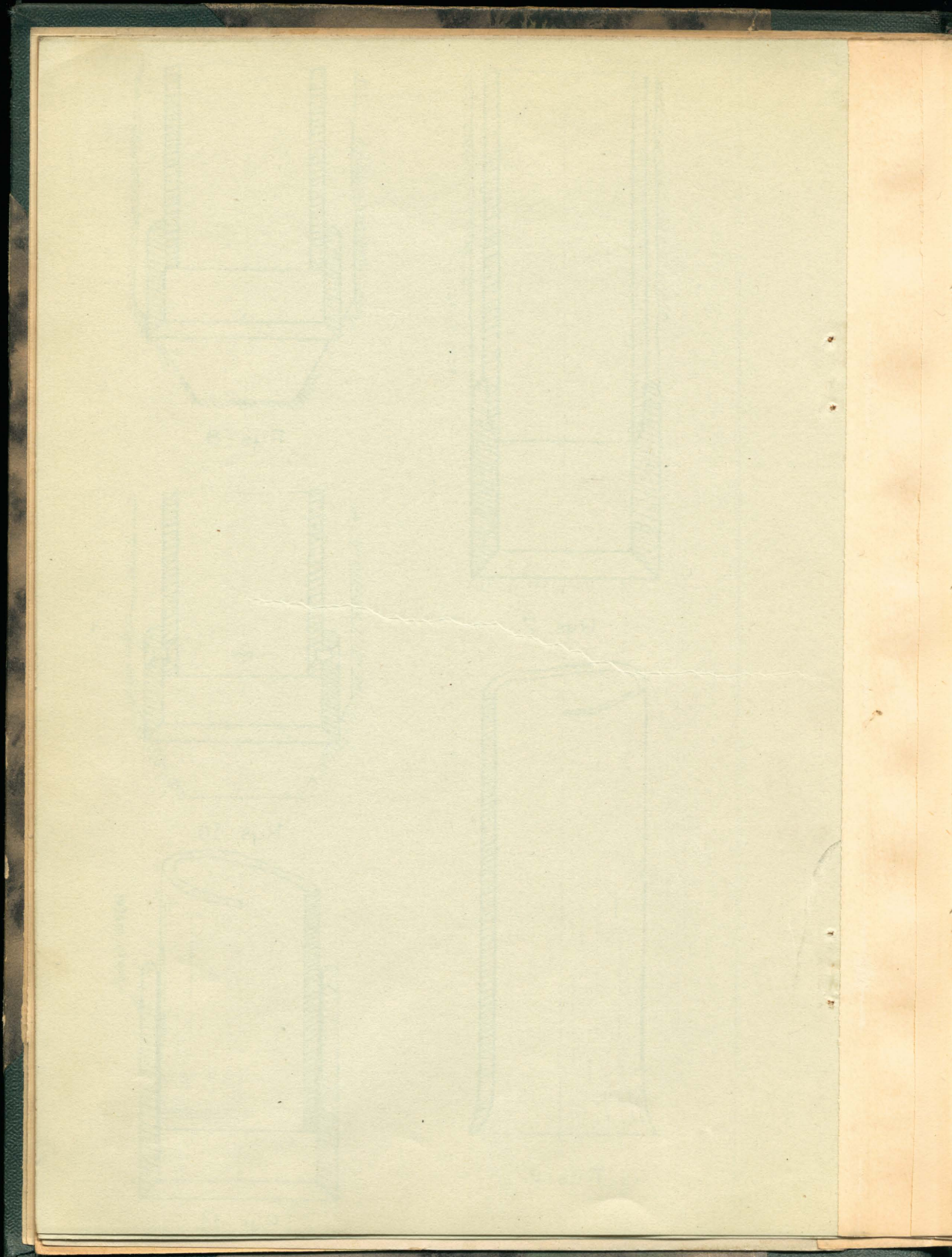
Rys. 8.

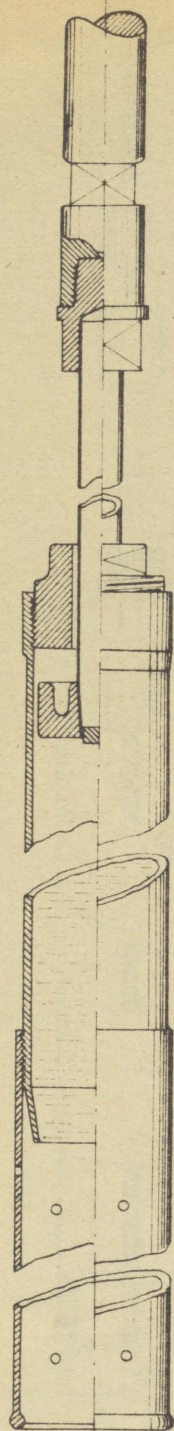


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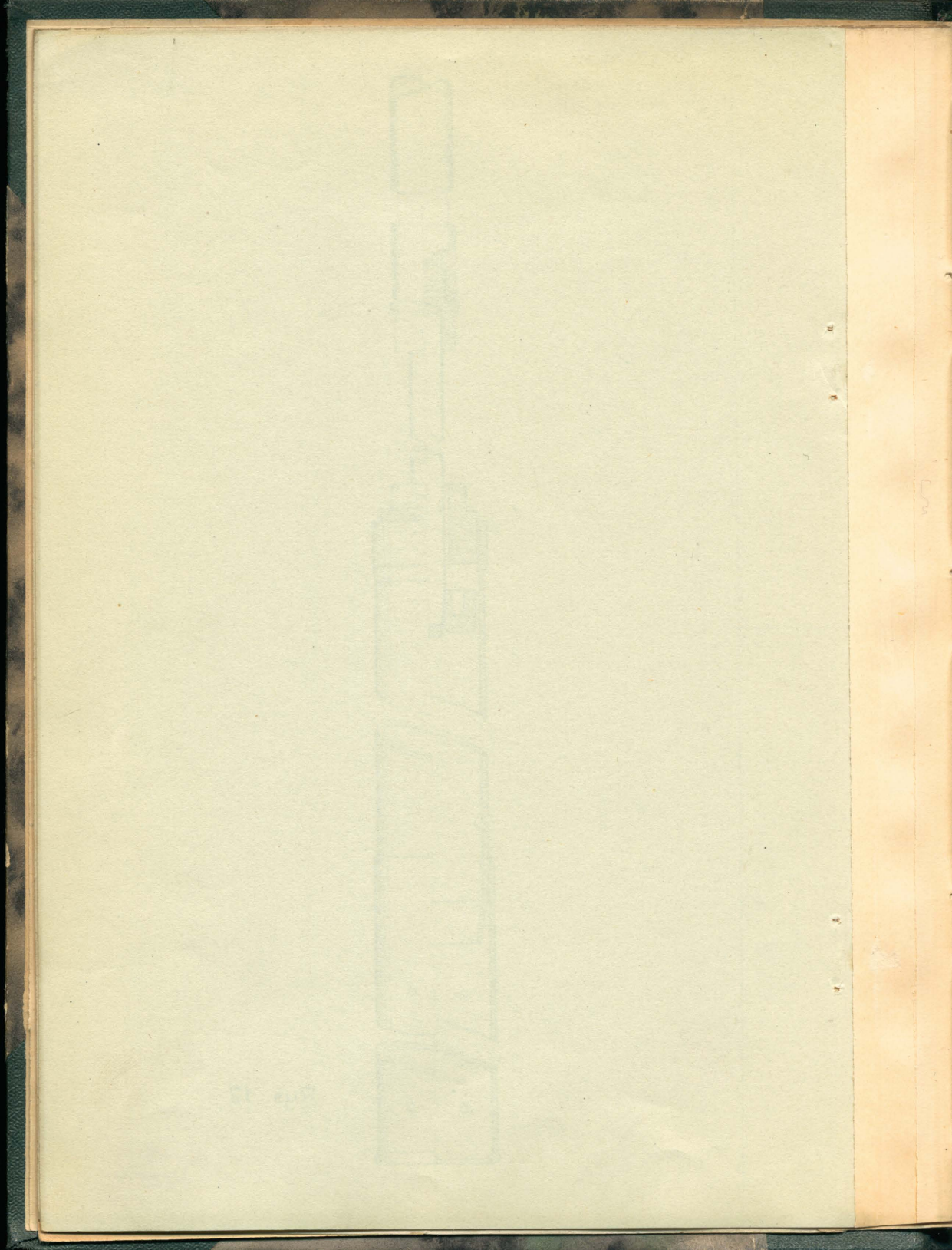


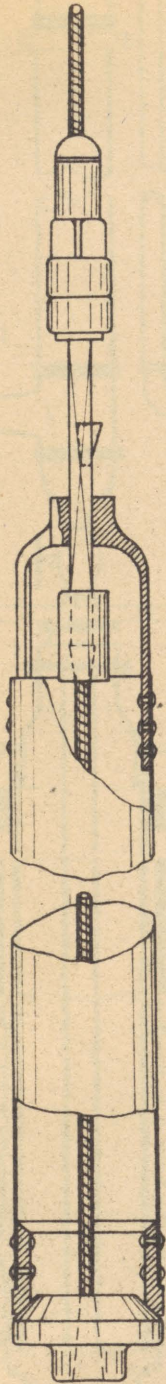
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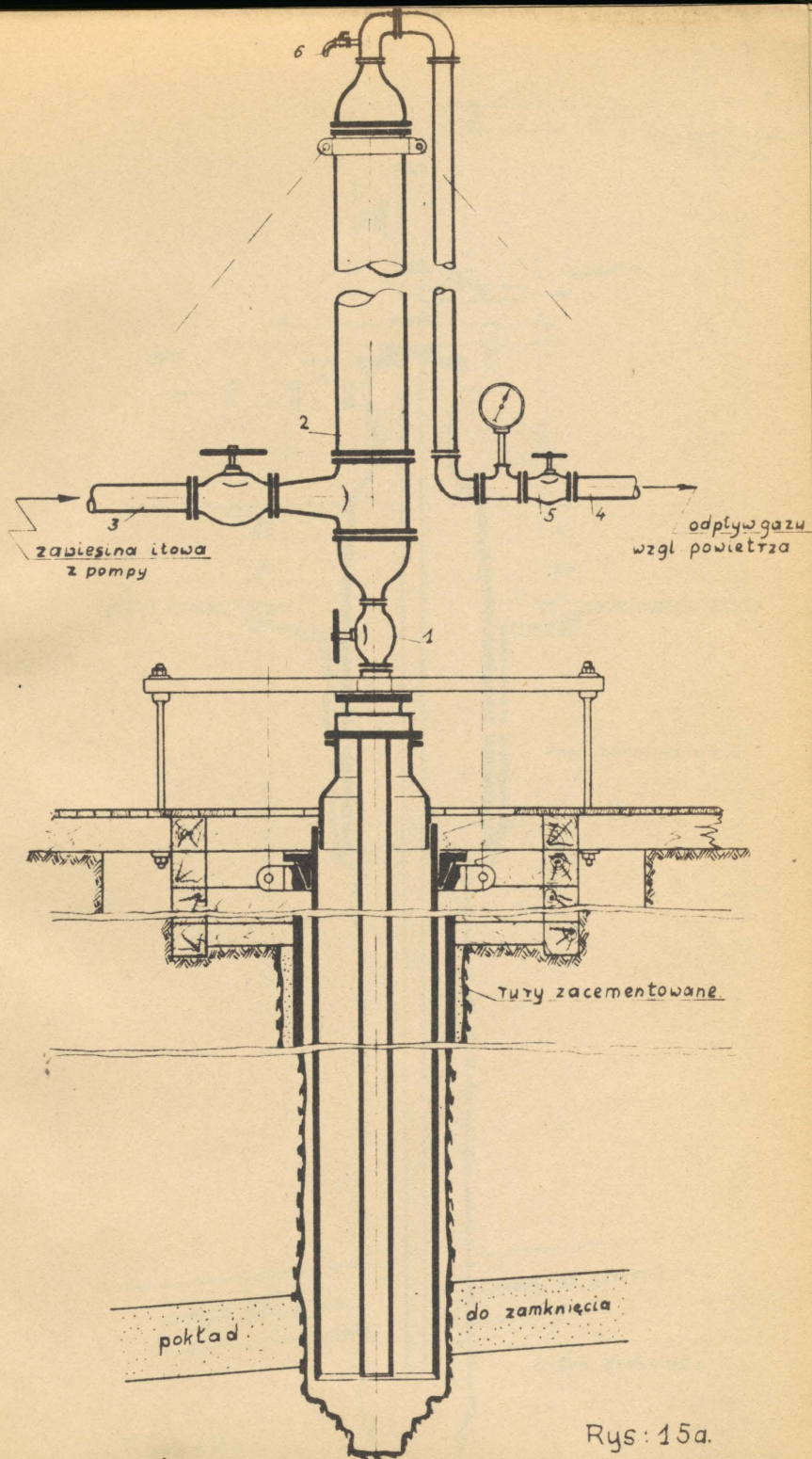
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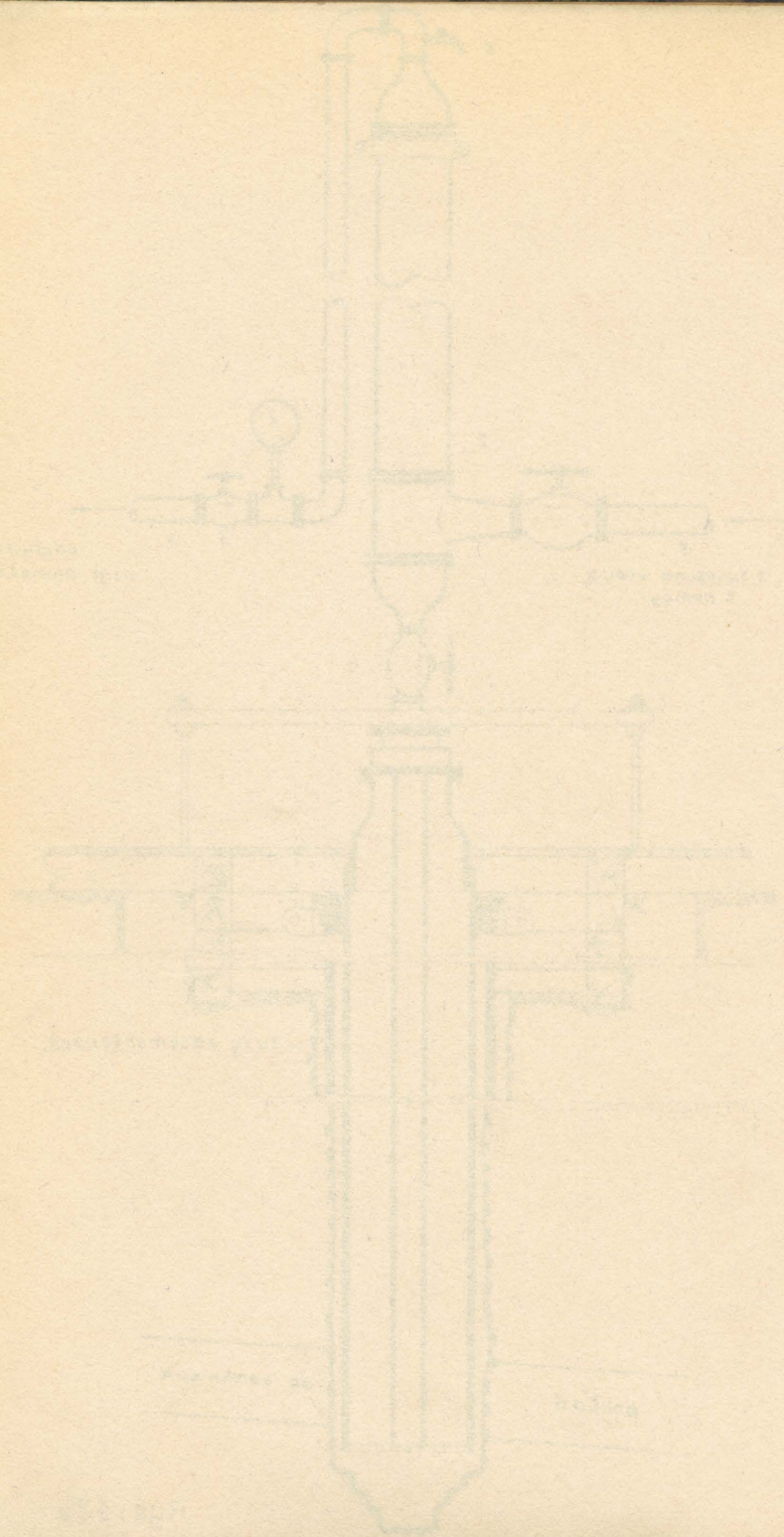


Rys.: 13.





Rys: 15a.



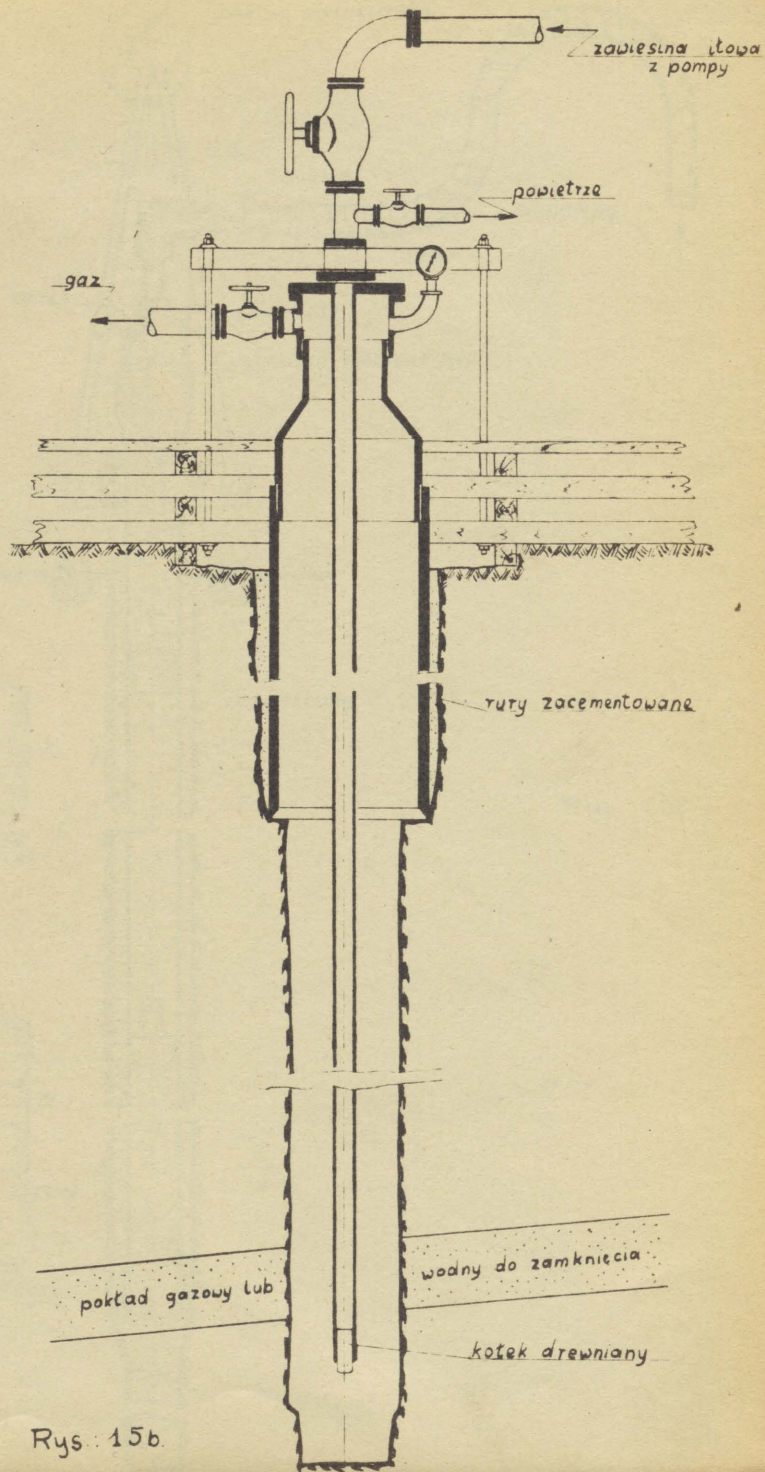
Vertical shaft
assembly

Horizontal shaft
assembly

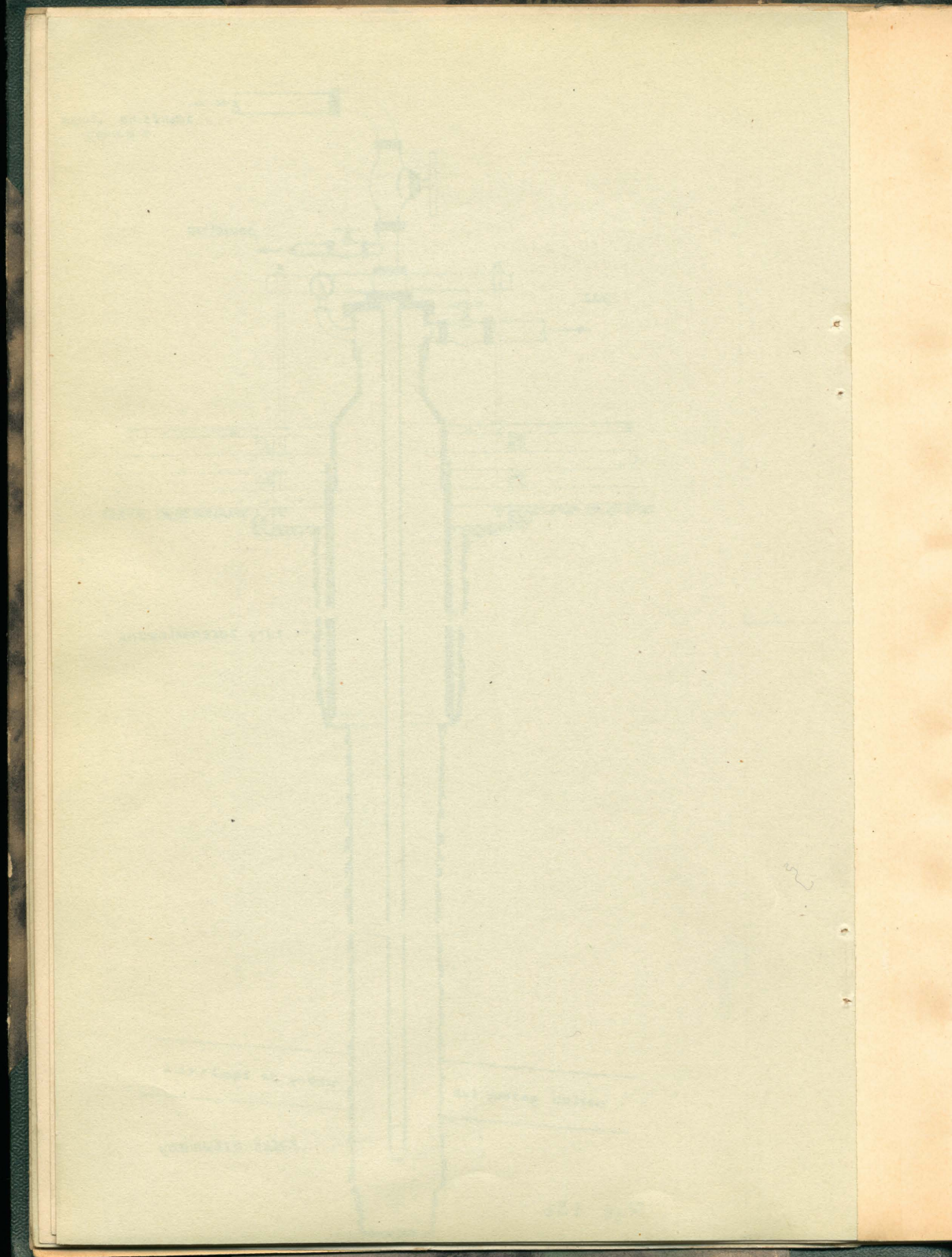
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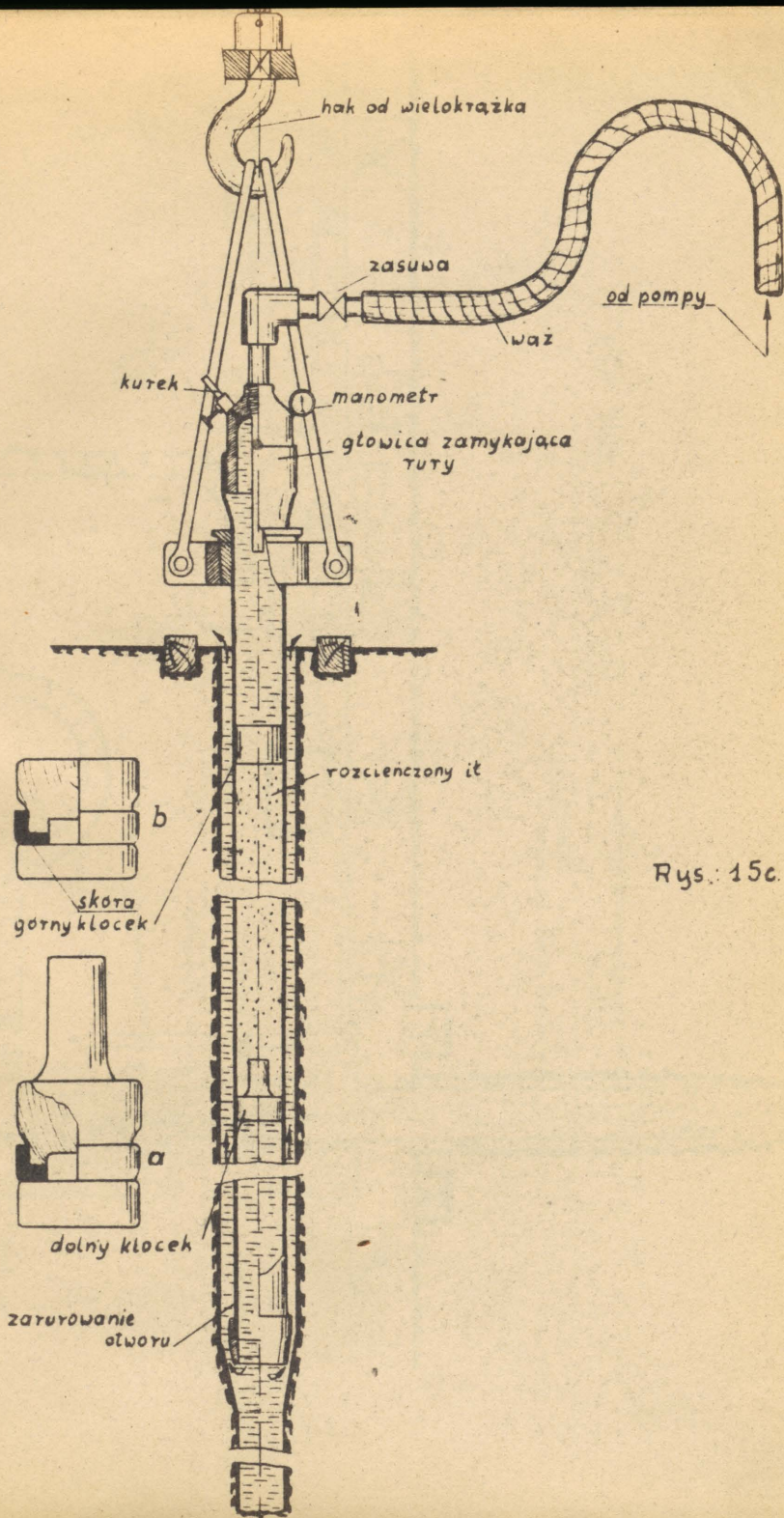
Section A-A

Section B-B

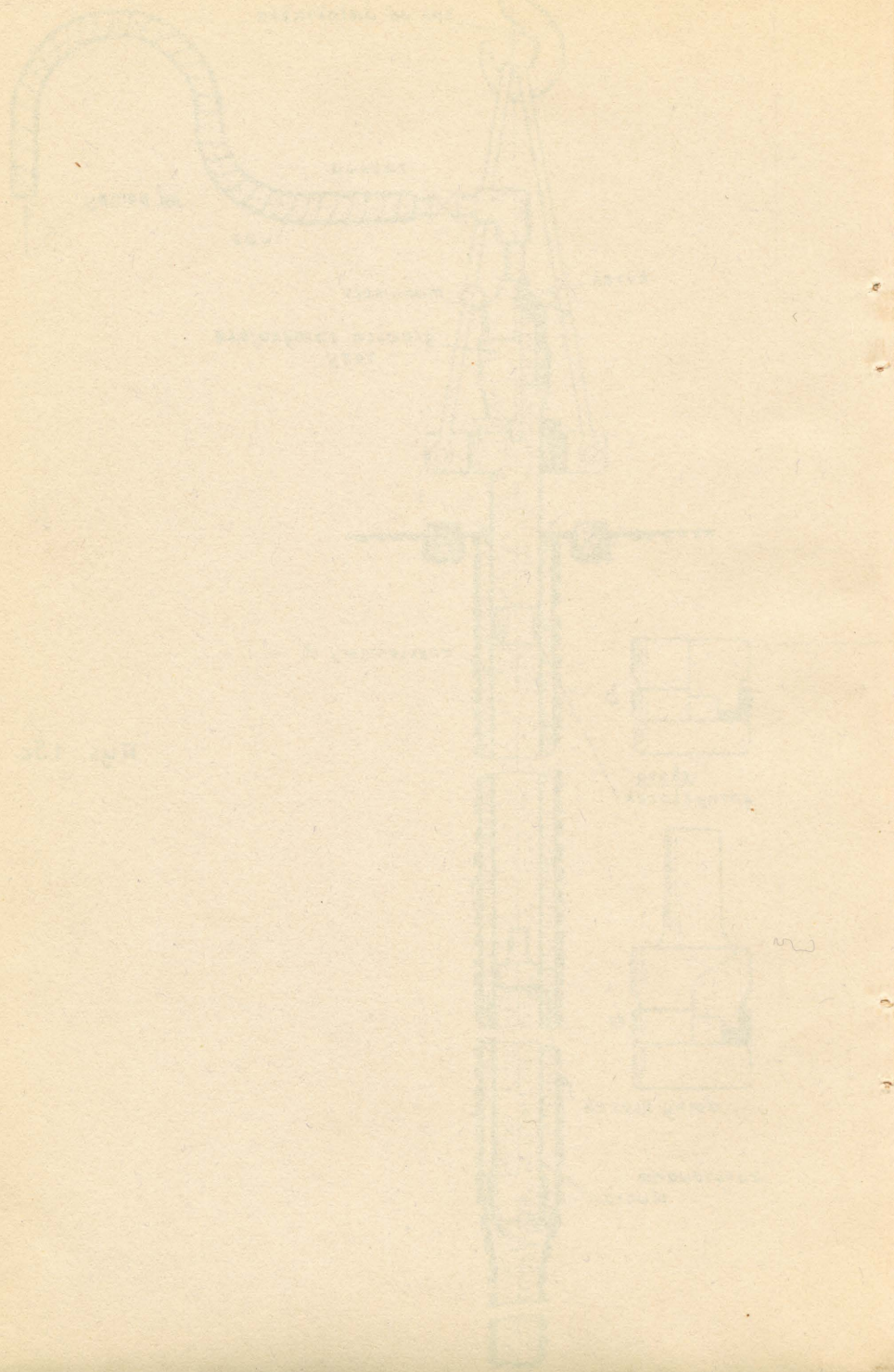


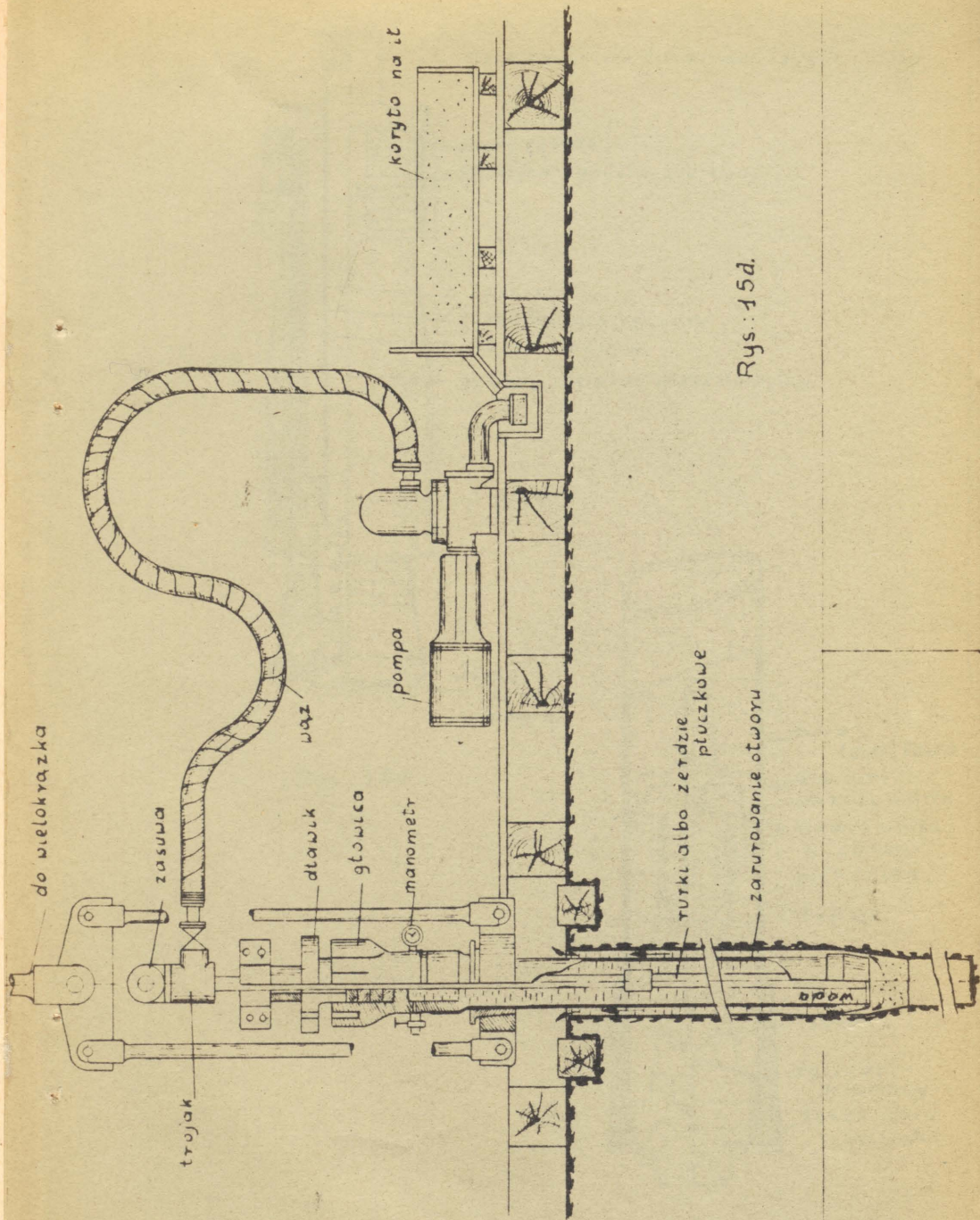
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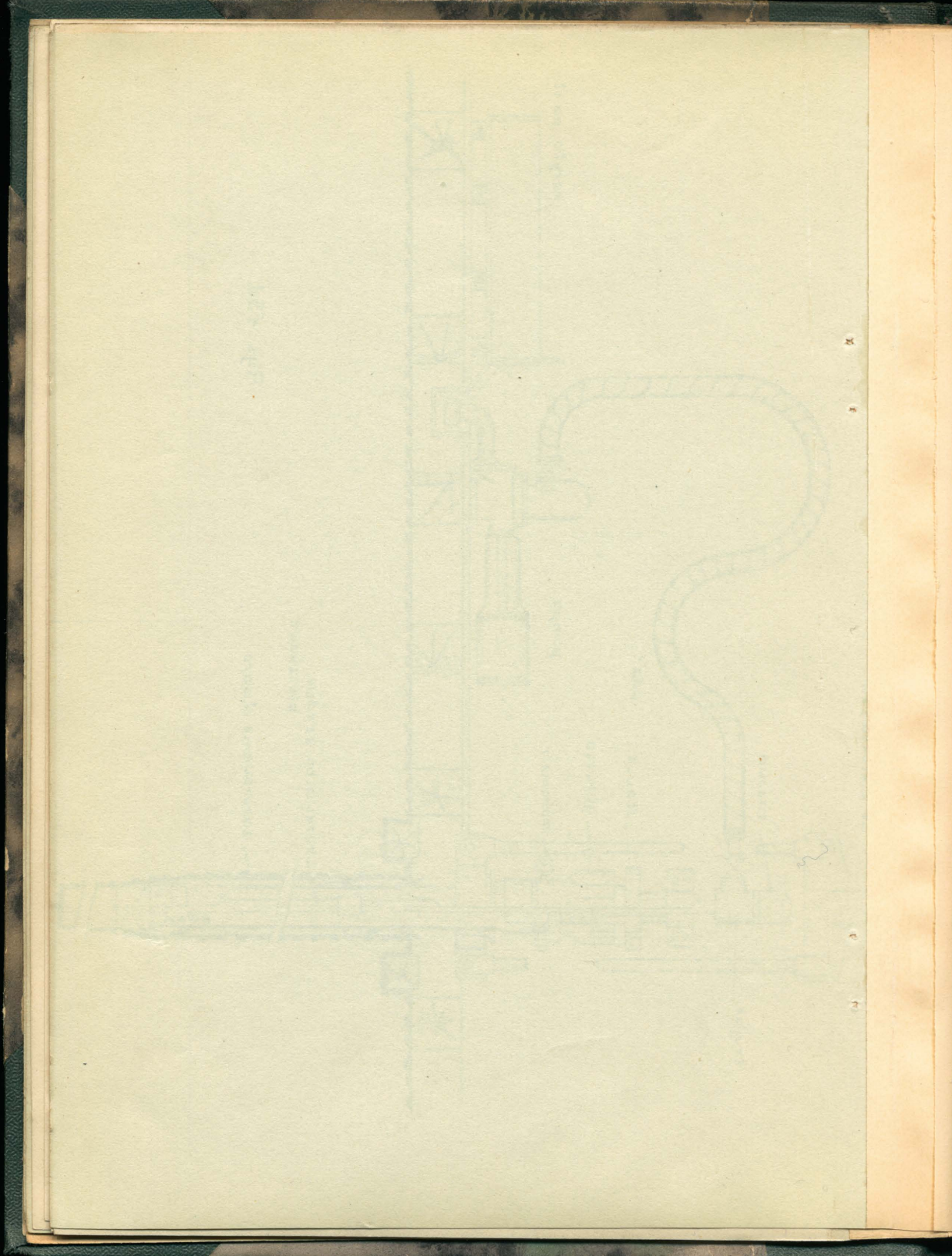


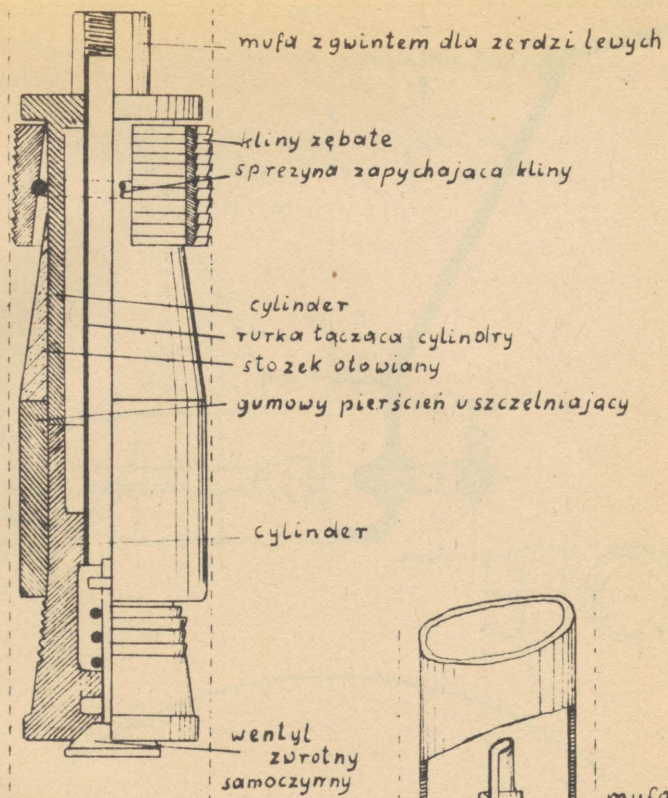
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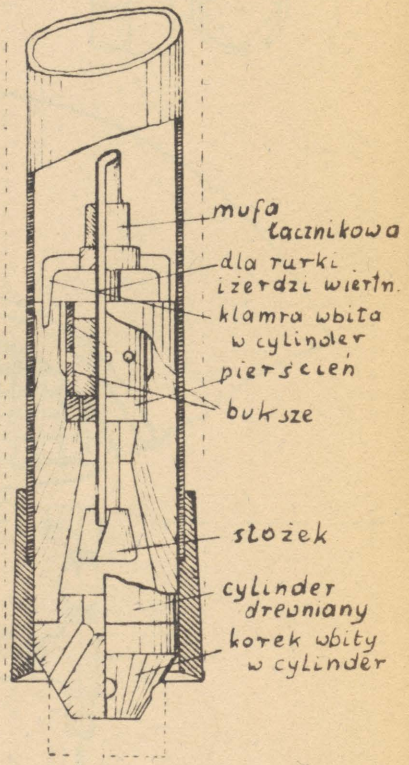


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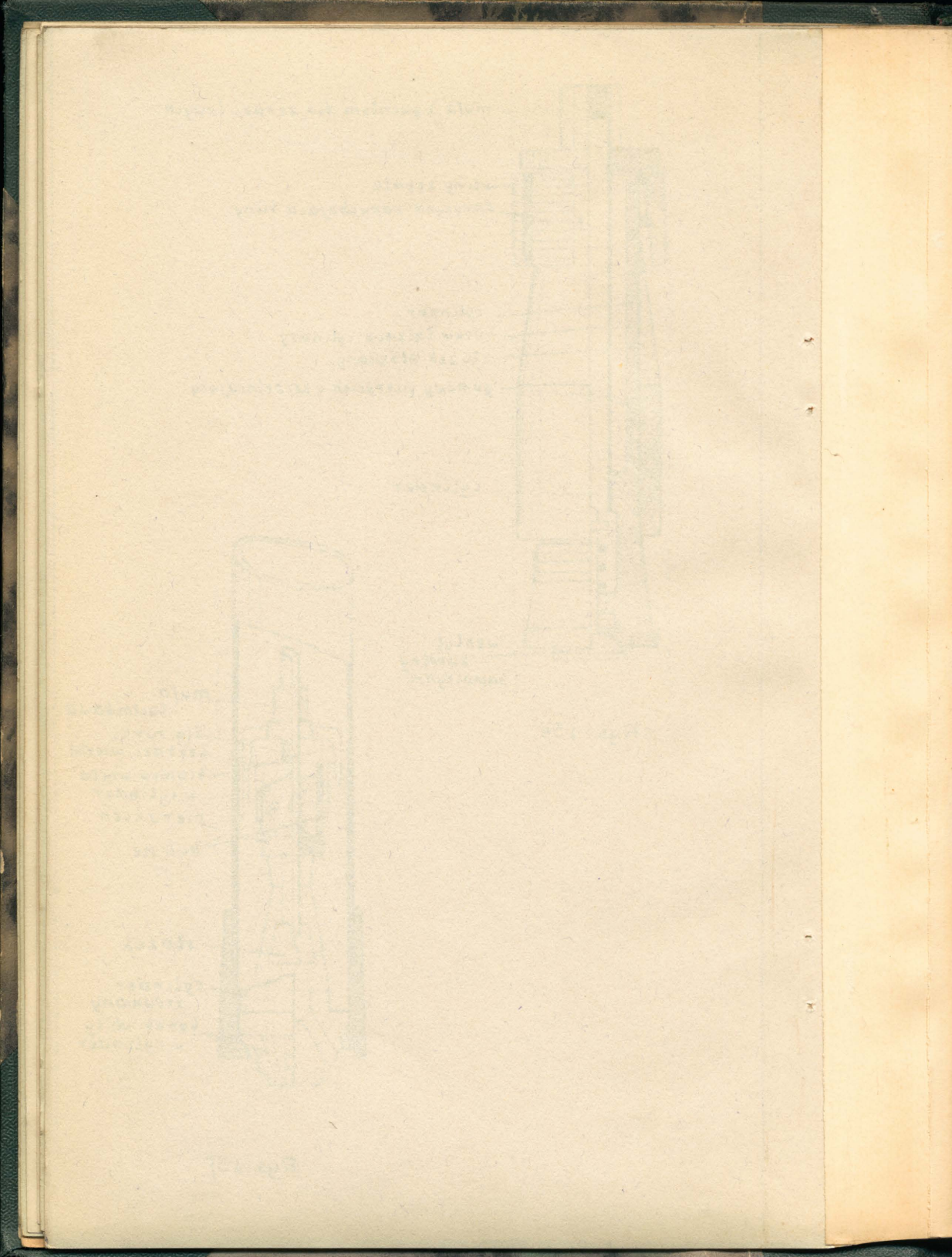


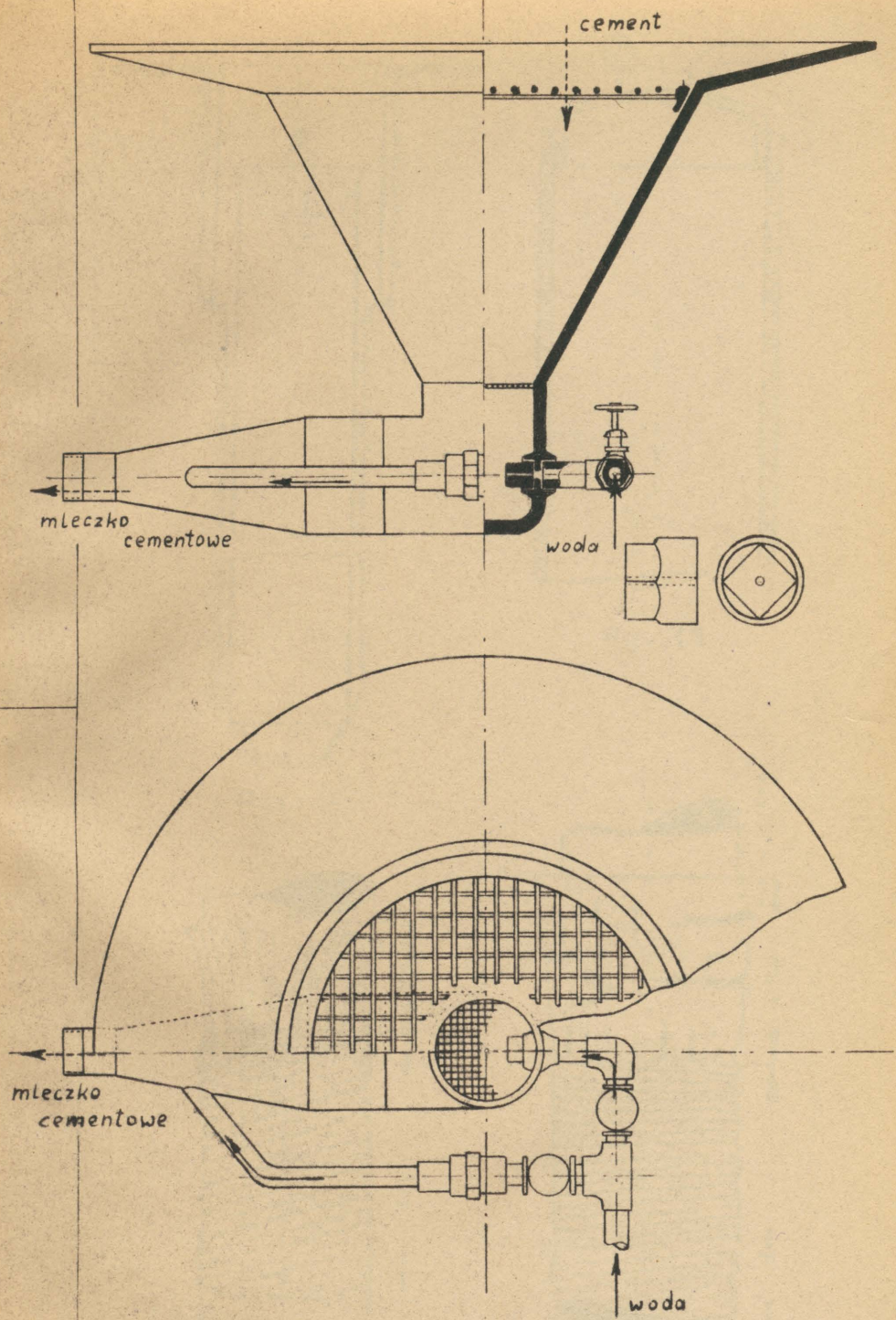


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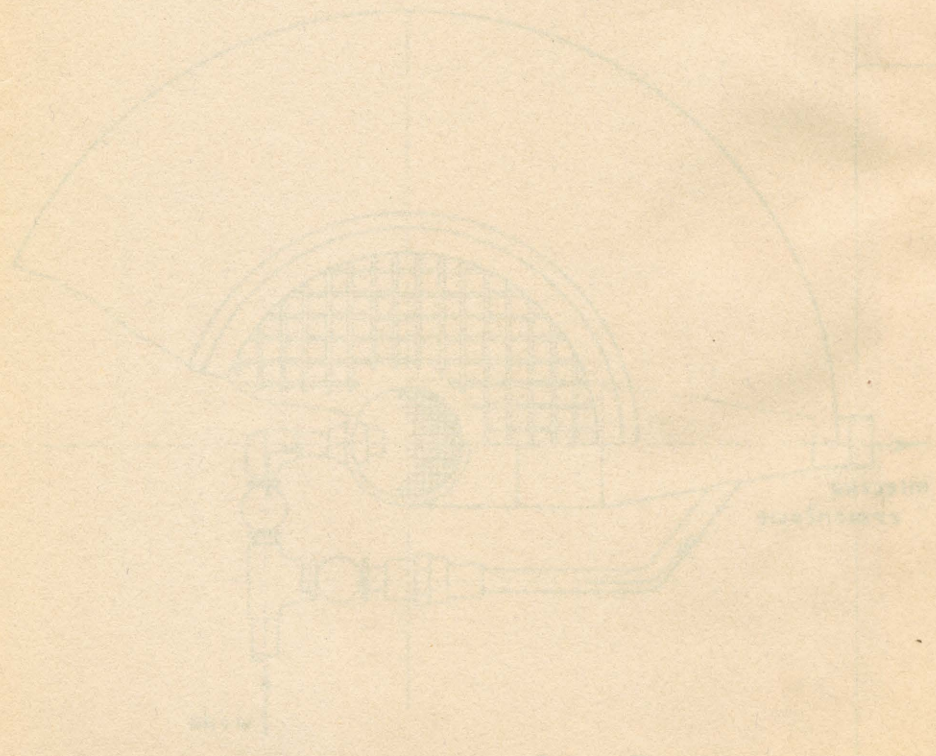
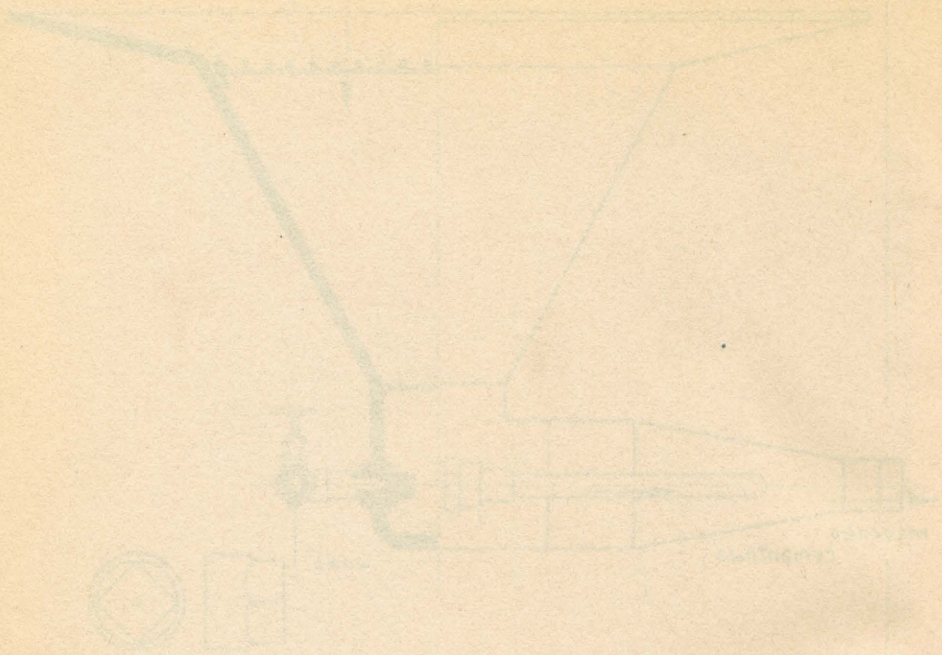


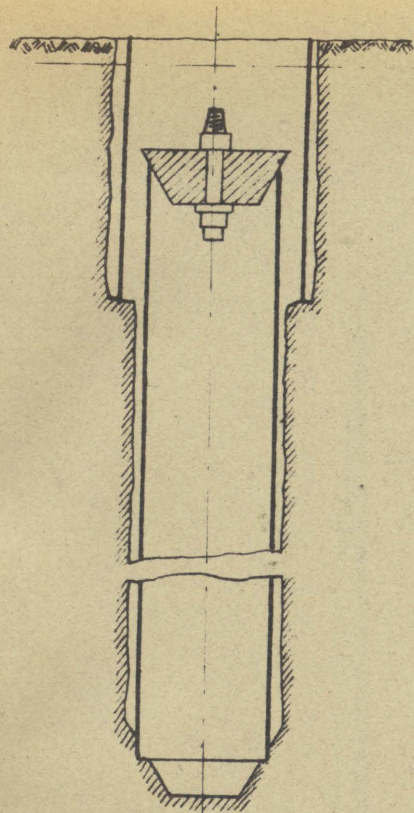
Rys. 15f



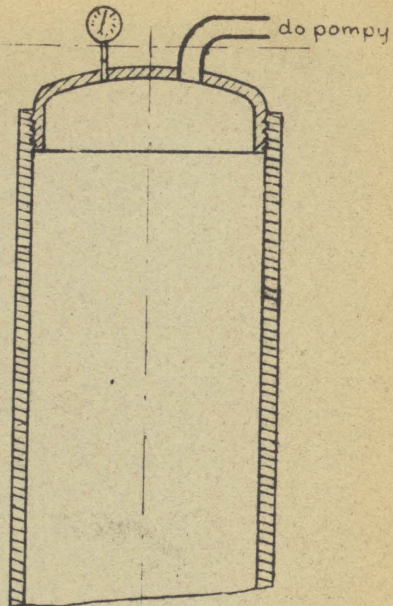


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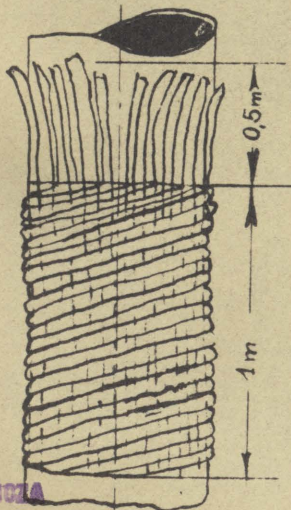




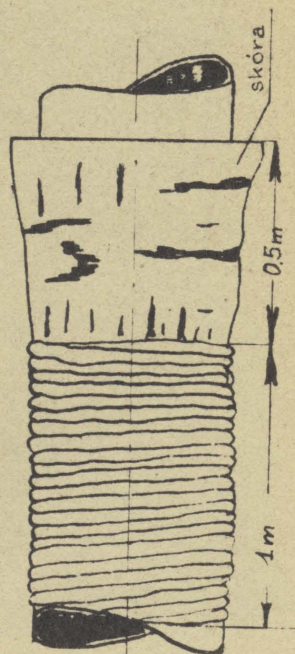
Rys. 14.



Rys. 15.



Rys. 16.

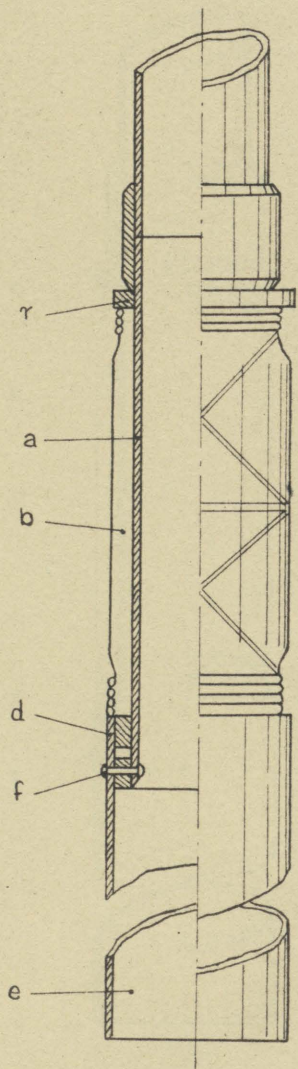


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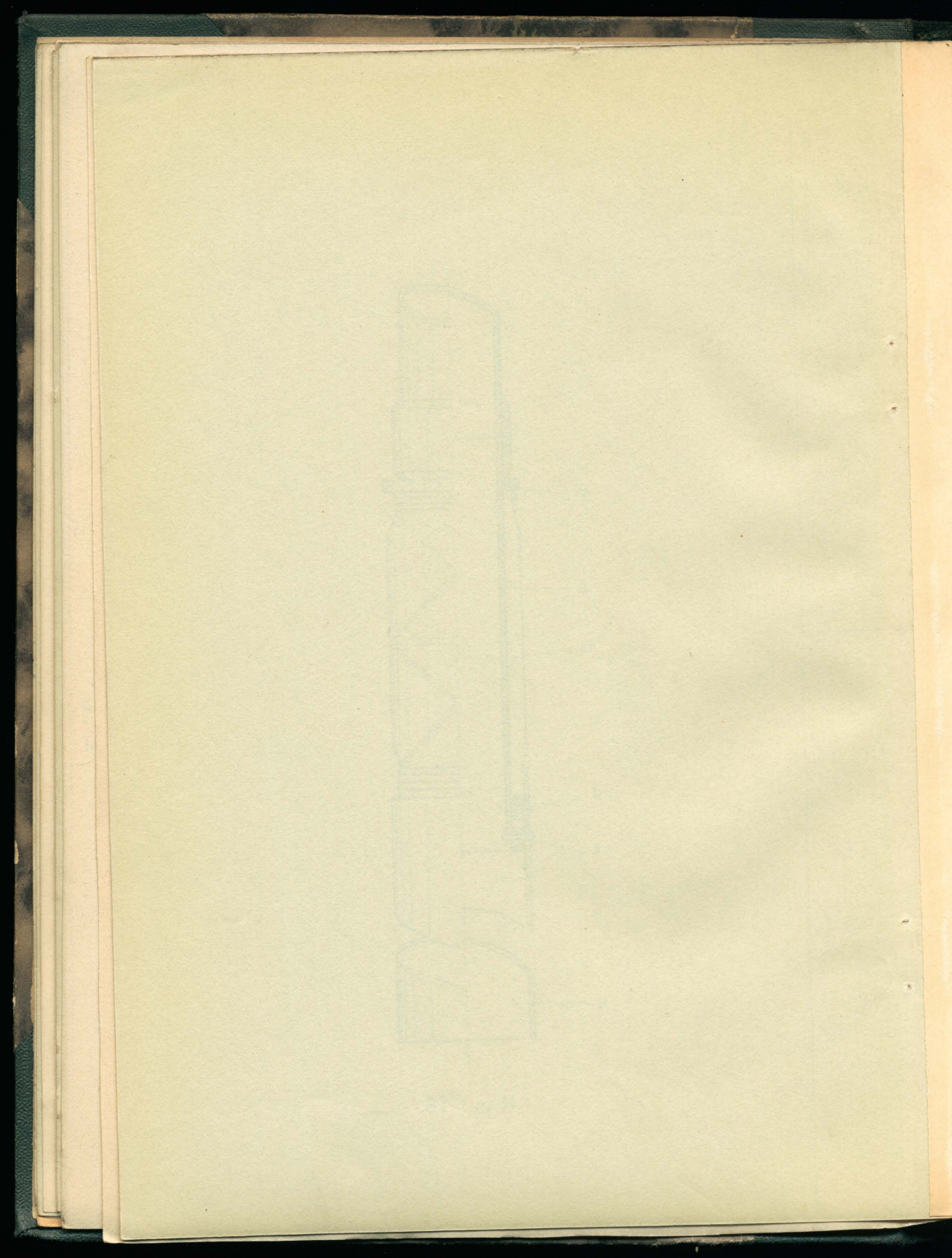
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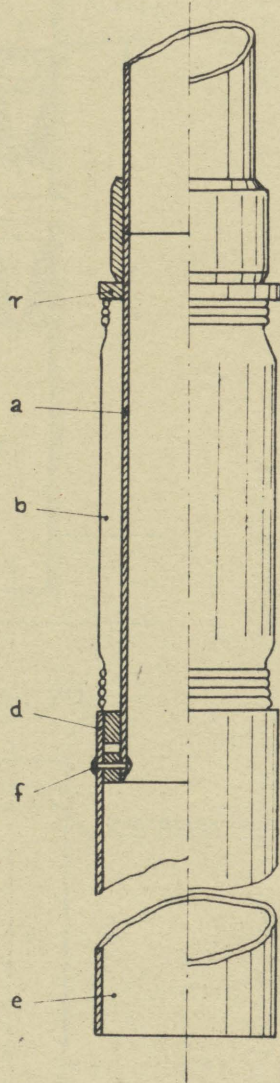
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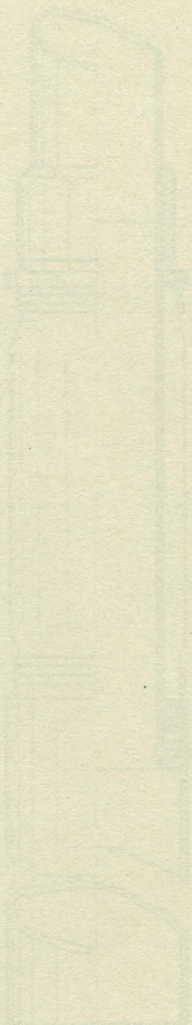


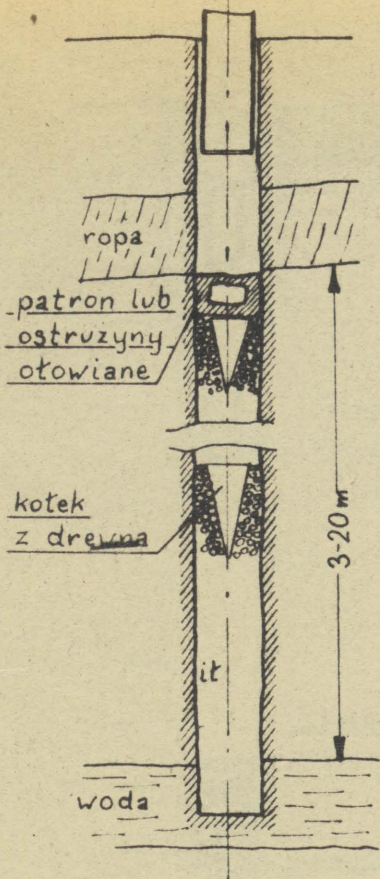
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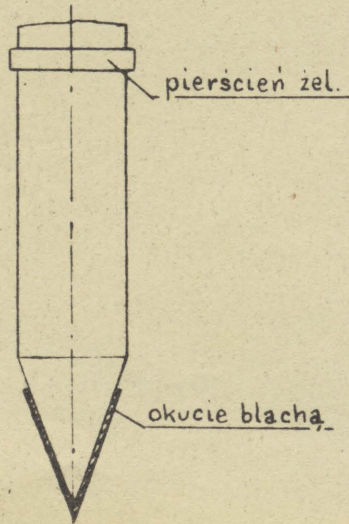


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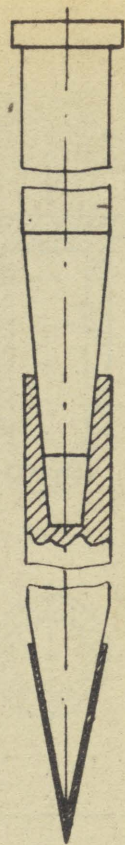




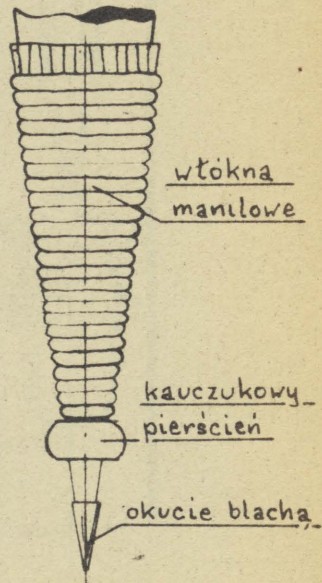
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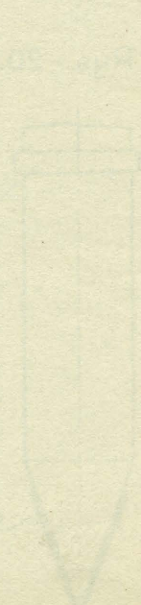
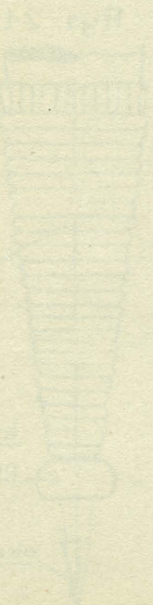
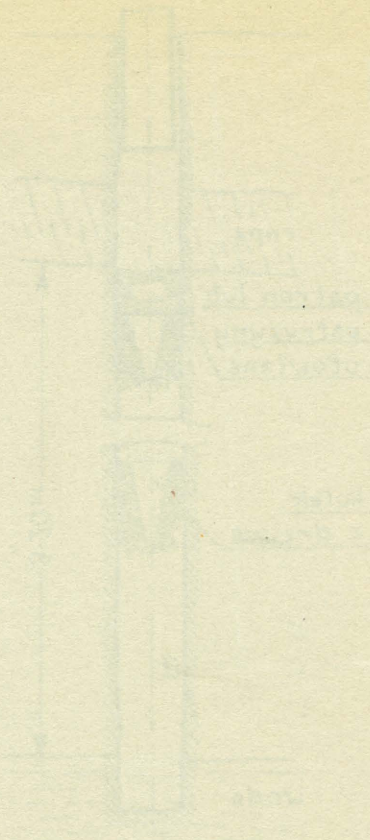
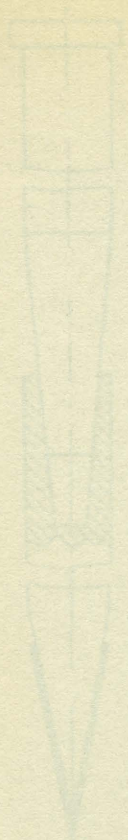
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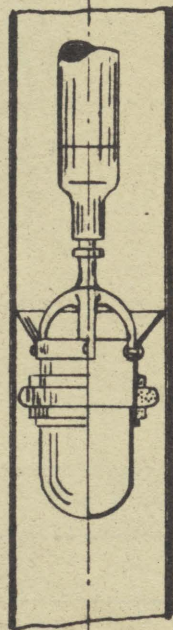
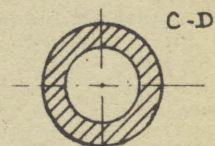
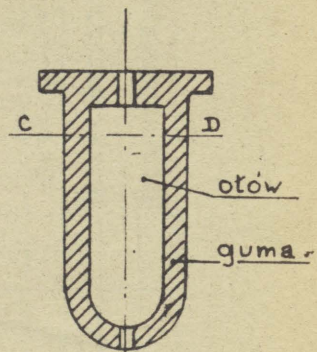
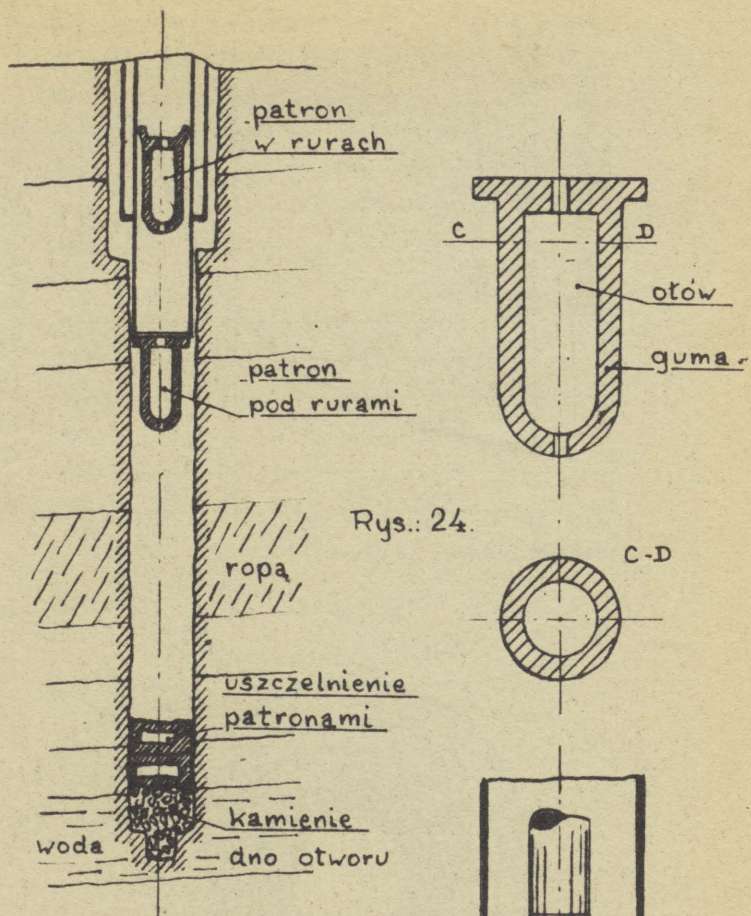


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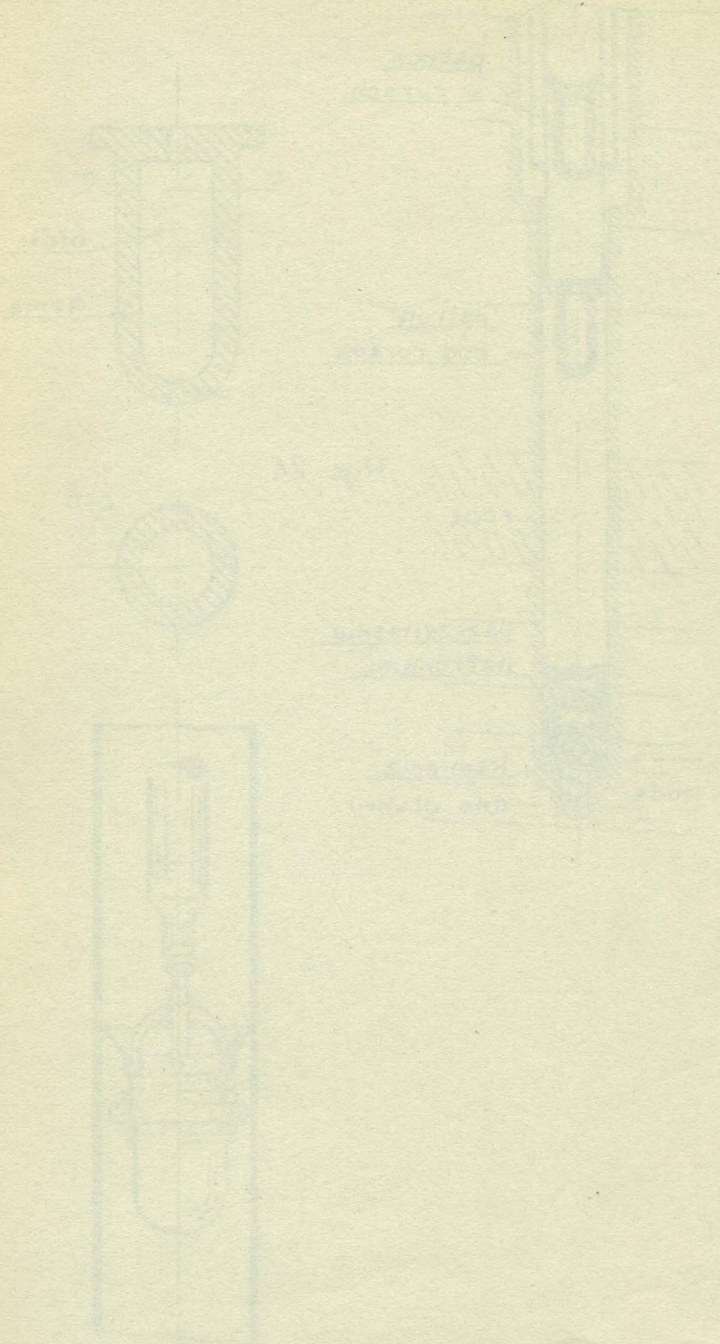


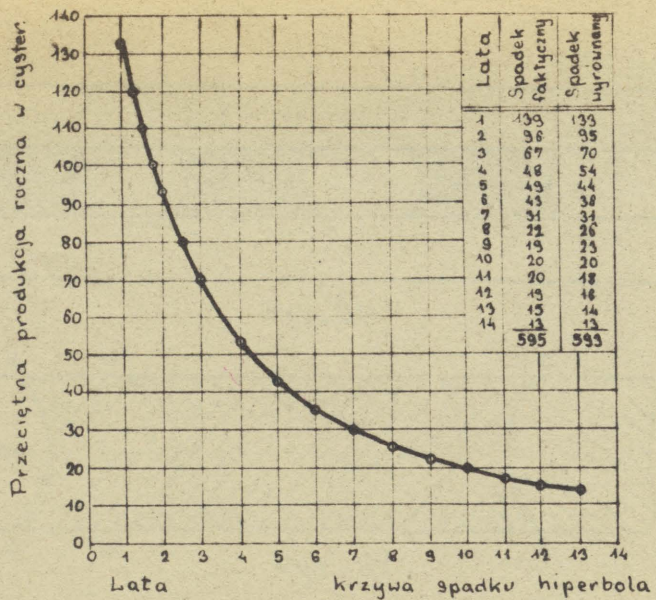
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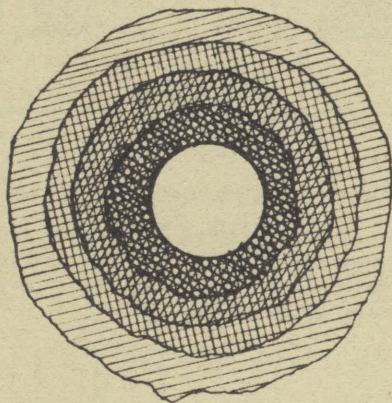


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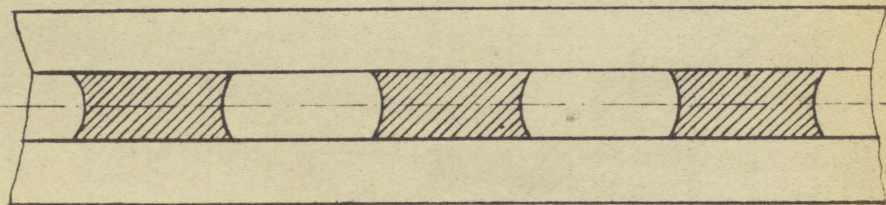




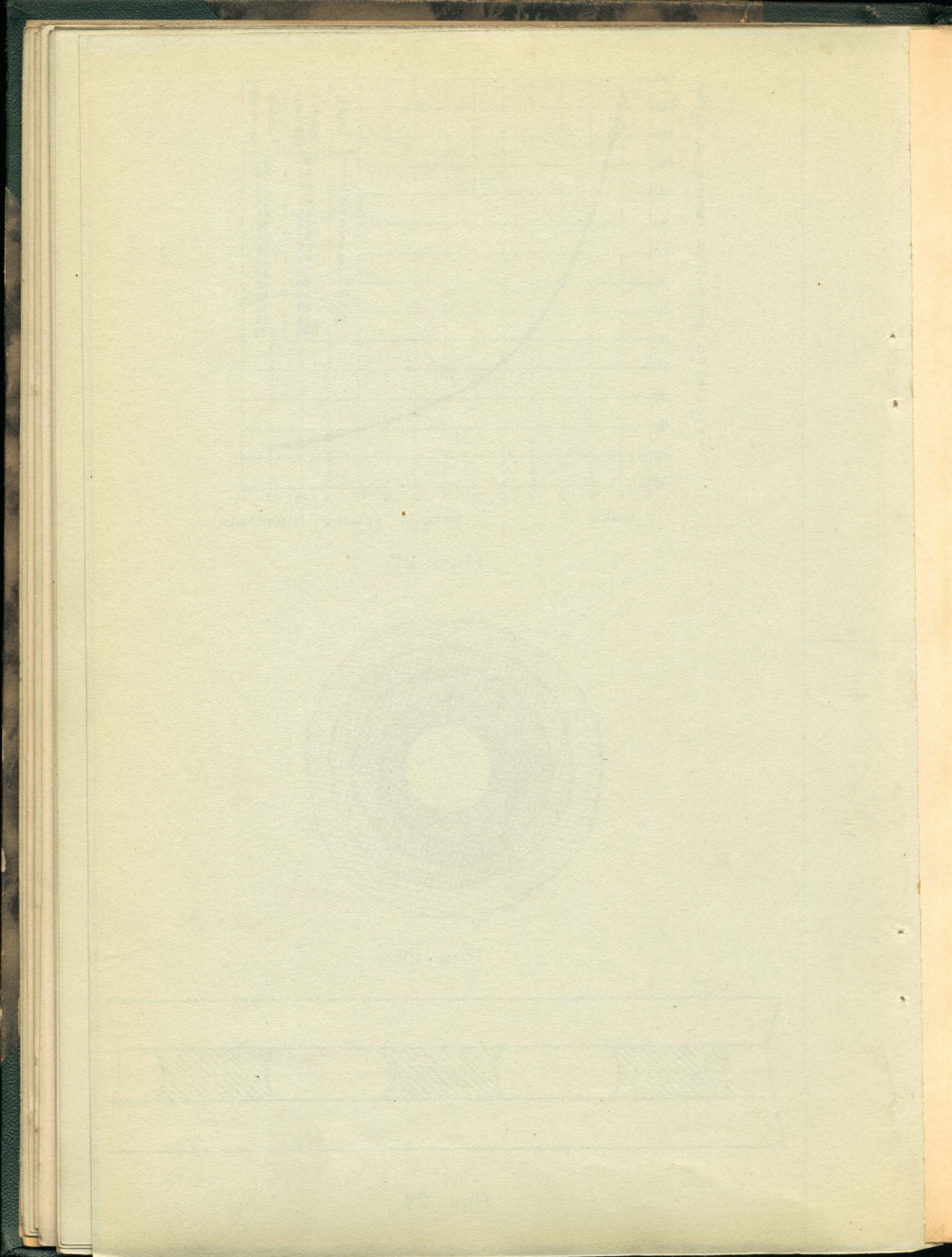
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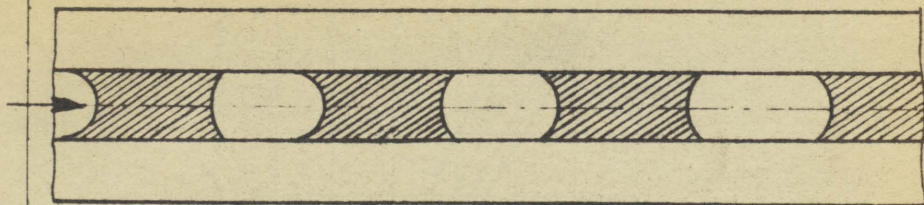


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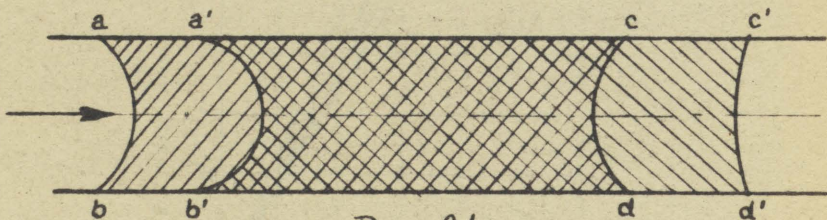


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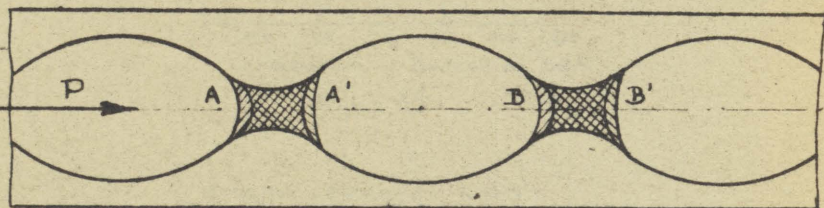




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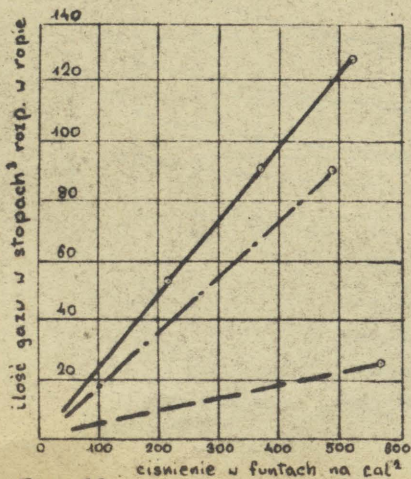
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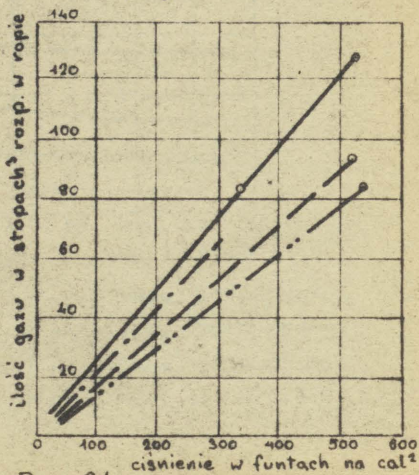
Rys.: 32.

ROZPUSSZCZALNOŚĆ GAZÓW W ROPIE:

- rozp. gazu Nr. 1 w ropie Nr. 2
- - - rozp. gazu Nr. 2 w ropie Nr. 2
- - - rozp. powietrza w ropie Nr. 1
- rozp. gazu Nr. 1 w ropie Nr. 1
- - - rozp. gazu Nr. 2 w ropie 0,8049
- - - rozp. gazu Nr. 1 w ropie Nr. 1
- - - rozp. gazu Nr. 2 w ropie Nr. 1



Rys.: 33.



Rys.: 34.

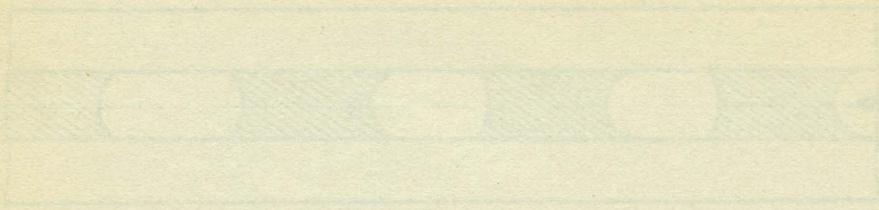
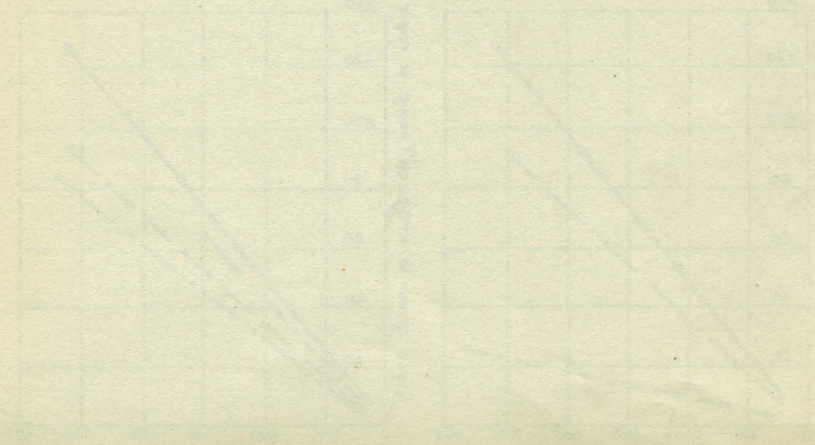
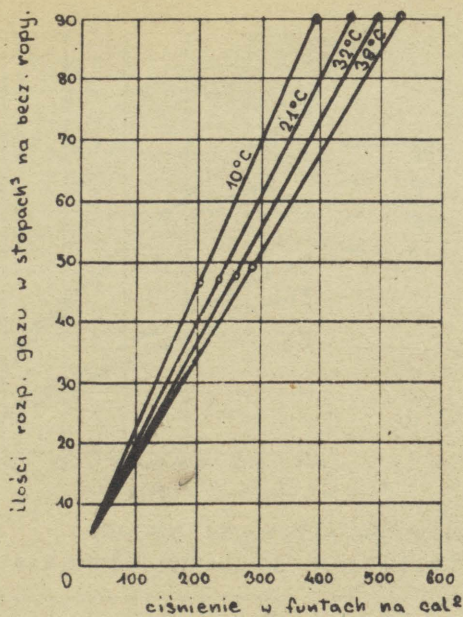


PLATE I
SECTION OF PIPE
SECTION OF PIPE
SECTION OF PIPE
SECTION OF PIPE
SECTION OF PIPE



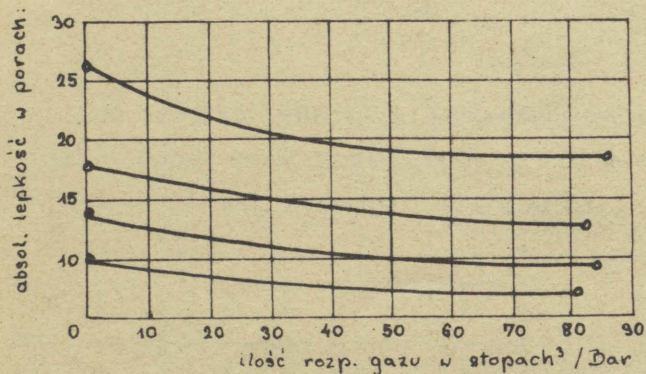
KRZYWE ROZPUSSZCZALNOŚCI GAZU W ROPIE
W ZALEŻNOŚCI OD TEMPERATURY:



Rys.: 35.

ZMIANY LEPKOŚCI ROPY

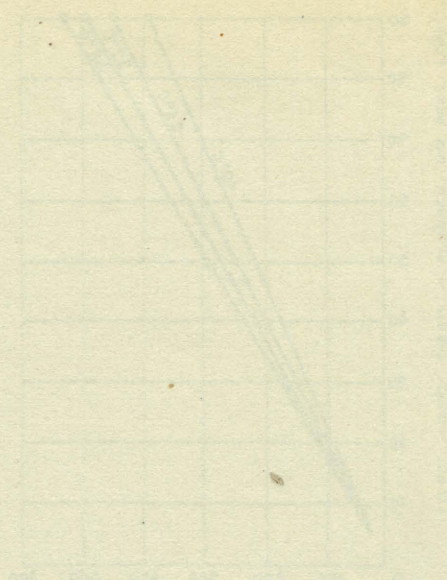
W ZALEŻNOŚCI OD ILOŚCI ROZPUSZCZ. GAZU I TEMP.:



krzywa 1 przy temp. 50°F (10°C)
 krzywa 2 przy temp. 70°F (21°C)
 krzywa 3 przy temp. 90°F (32°C)
 krzywa 4 przy temp. 100°F (43°C)

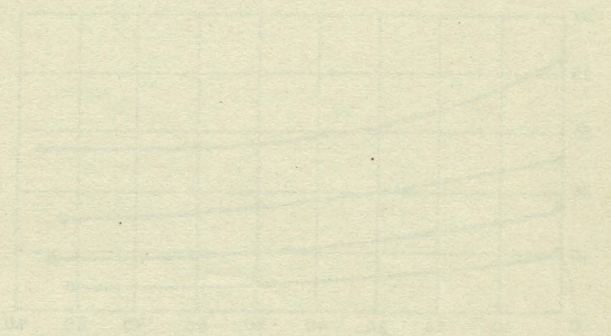
Rys.: 36.

TEMPERATURE RECORD



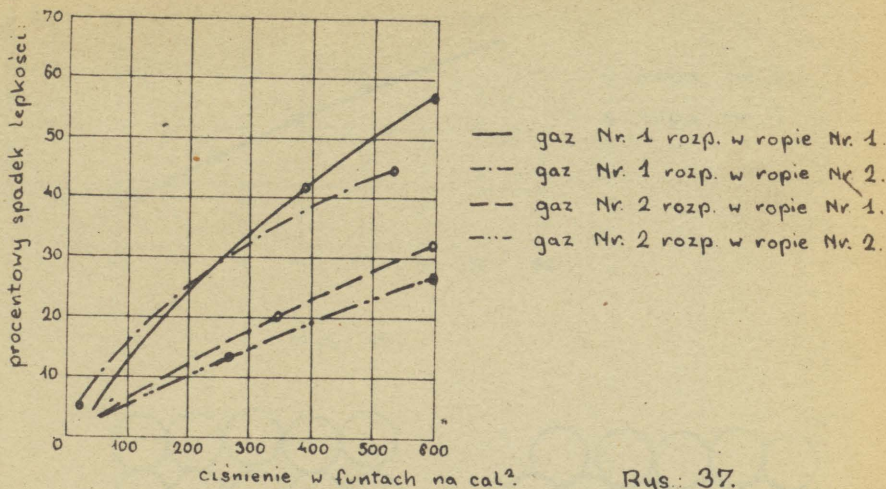
TEMPERATURE RECORD

TEMPERATURE RECORD



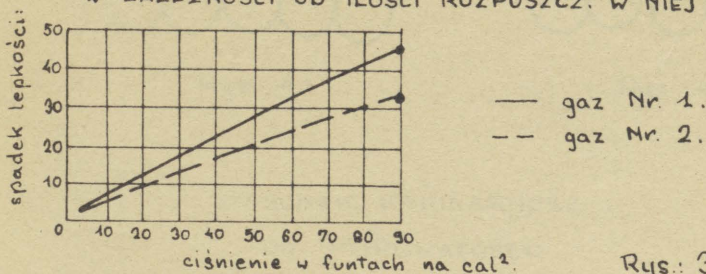
TEMPERATURE RECORD

PROCENTOWY SPADEK LEPKOŚCI
 ROPY ZAWIER. GAZ ROZPUSZCZ. POD CIŚNIENIEM:



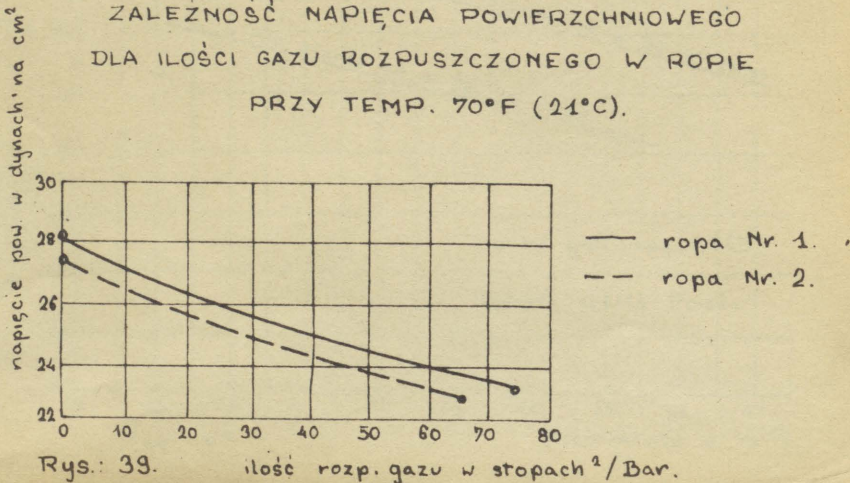
Rys. 37.

SPADEK LEPKOŚCI ROPY NR. 1.
 W ZALEŻNOŚCI OD ILOŚCI ROZPUSZCZ. W NIEJ GAZU:



Rys. 38.

ZALEŻNOŚĆ NAPIĘCIA POWIERZCHNIOWEGO
 DLA ILOŚCI GAZU ROZPUSZCZONEGO W ROPIE
 PRZY TEMP. 70°F (21°C).

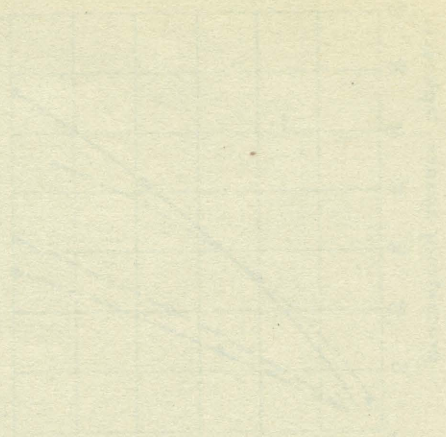


Rys. 39.

ilość rozp. gazu w stopach²/Bar.

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REPORT OF THE
COMMISSIONERS OF THE
LAND OFFICE
FOR THE YEAR 1880



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DEPARTMENT OF CHEMISTRY
REPORT OF THE
COMMISSIONERS OF THE
LAND OFFICE
FOR THE YEAR 1880

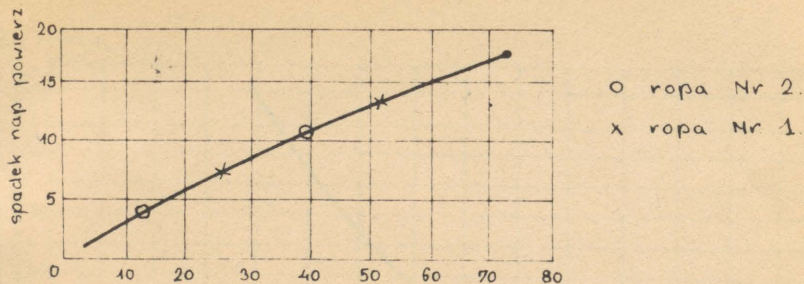


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REPORT OF THE
COMMISSIONERS OF THE
LAND OFFICE
FOR THE YEAR 1880

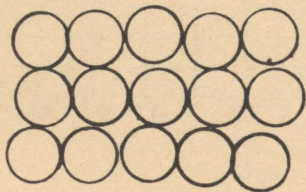
THE UNIVERSITY OF CHICAGO
DEPARTMENT OF CHEMISTRY
REPORT OF THE
COMMISSIONERS OF THE
LAND OFFICE
FOR THE YEAR 1880



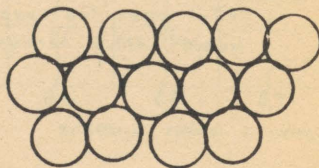
PROCENTOWY SPADEK
NAPIĘCIA POWIERZCHNIOWEGO



Rys.: 40.

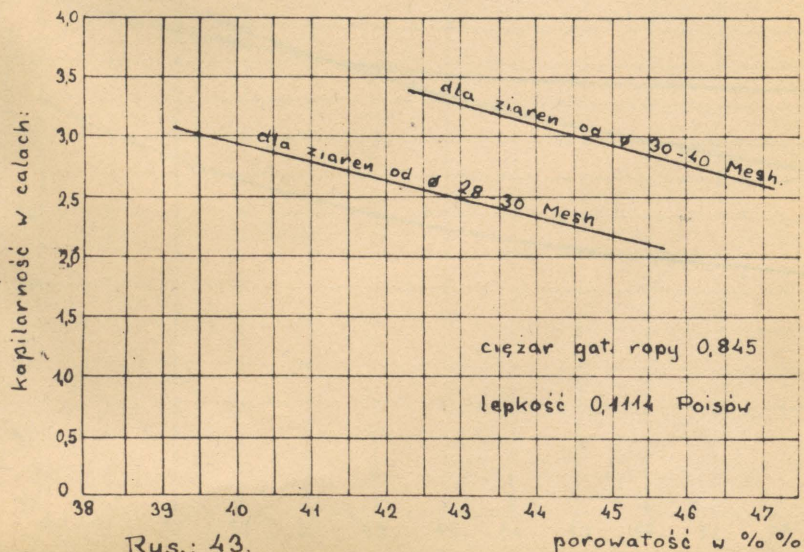


Rys.: 41



Rys.: 42.

STOSUNEK KAPILARNOŚCI
DO POROWATOŚCI:

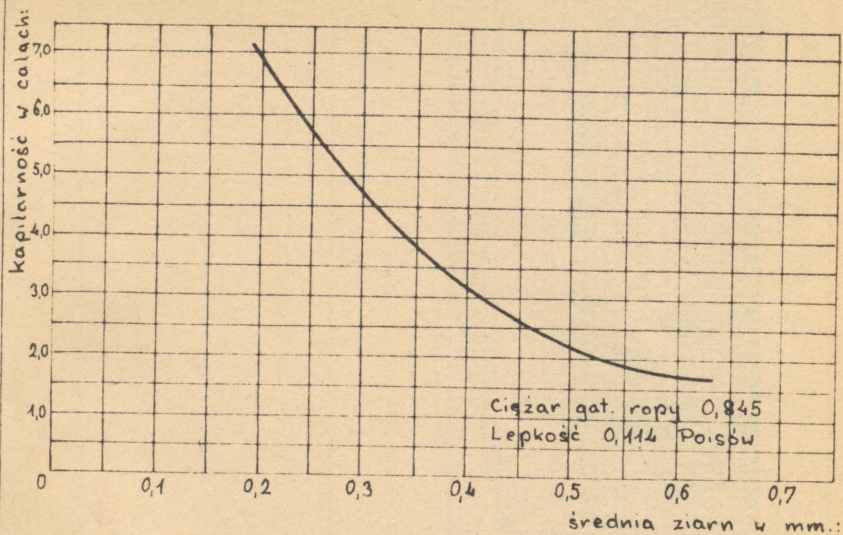


Rys.: 43.



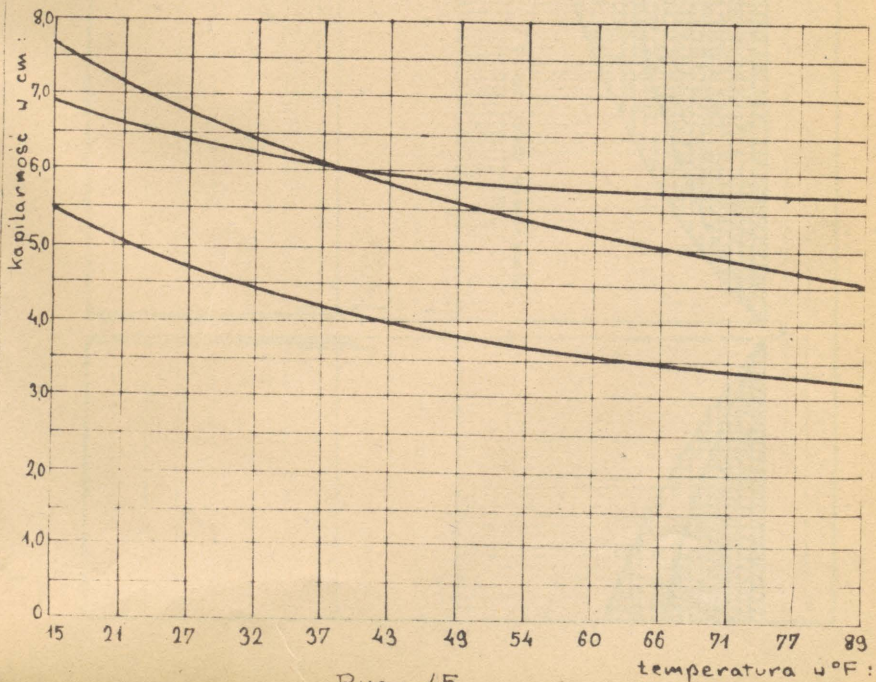
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STOSUNEK KAPILARNOSCI DO GRUBOSCI ZIARN:



Rys.: 44.

WPLYW TEMPERATURY NA SIŁĘ
WŁOSKOWATOŚCI PIASKOWCA:



Rys.: 45.



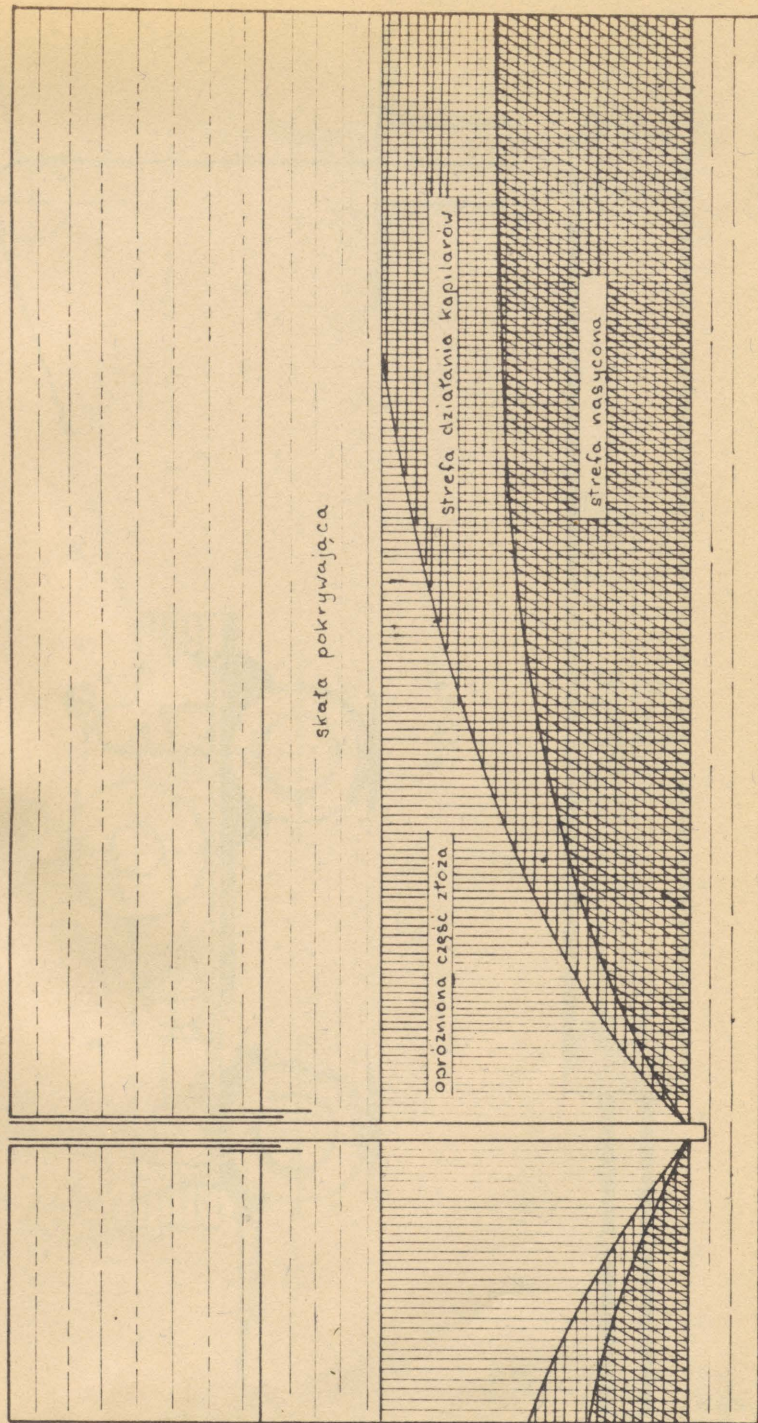
ST. LOUIS, MO.

1911

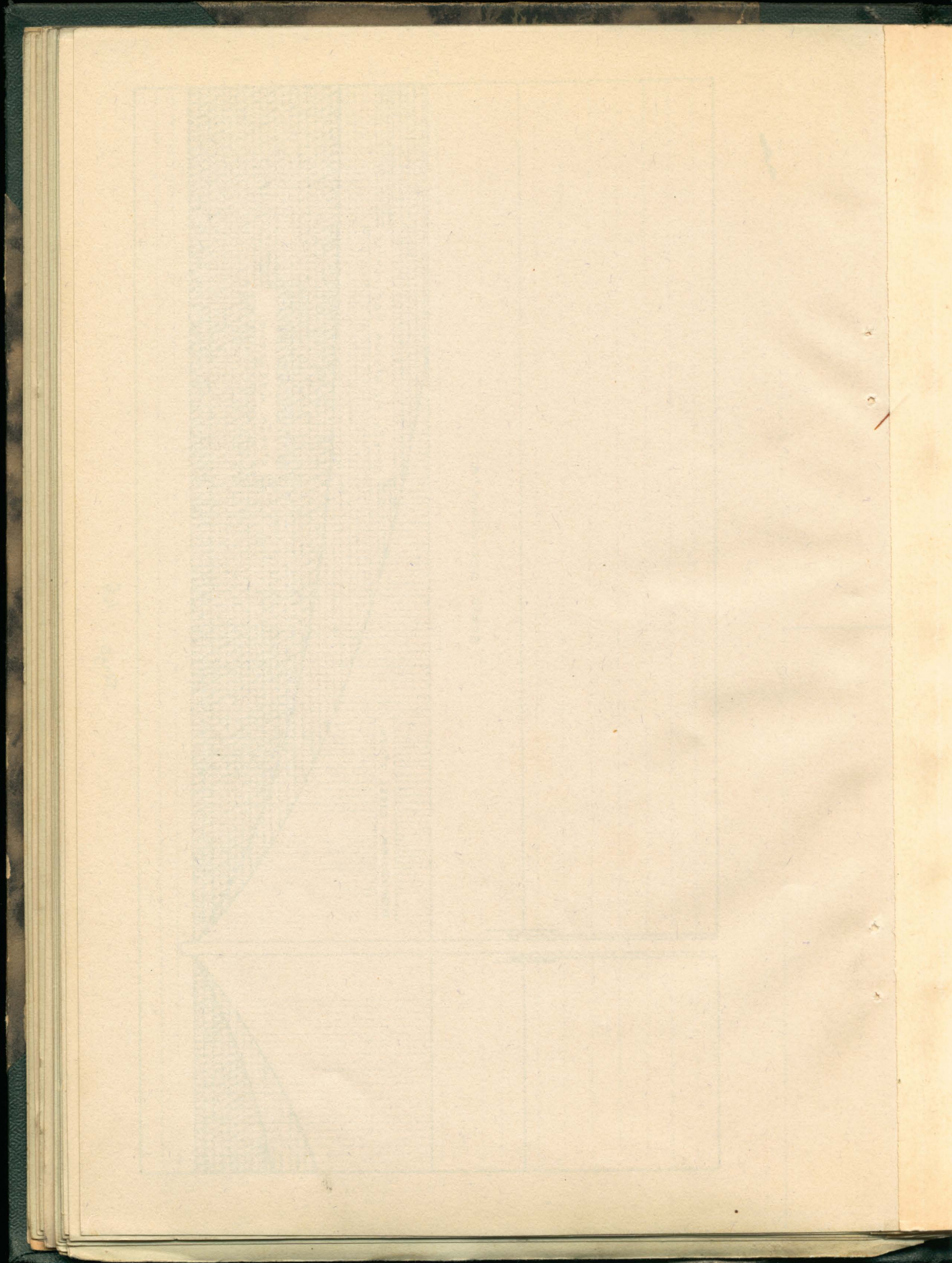
TEMPERATURE RECORD

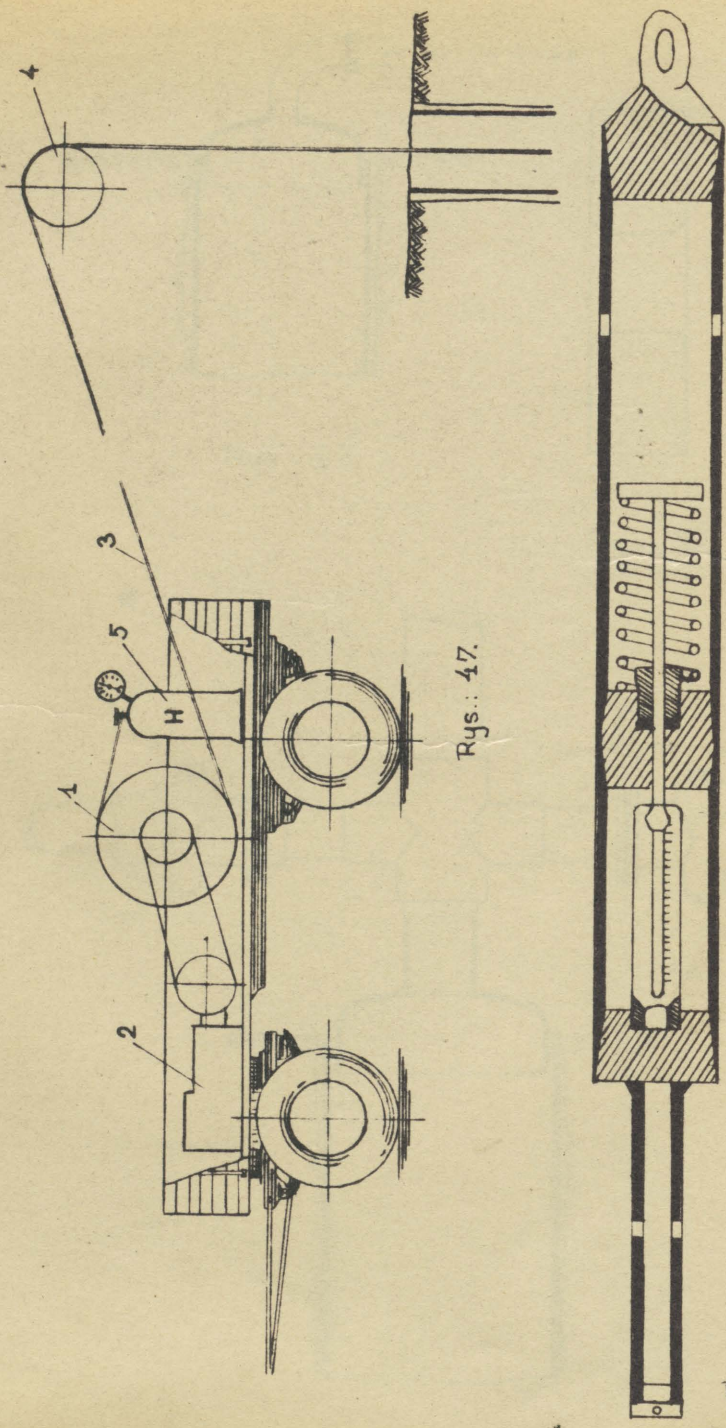


ST. LOUIS, MO.



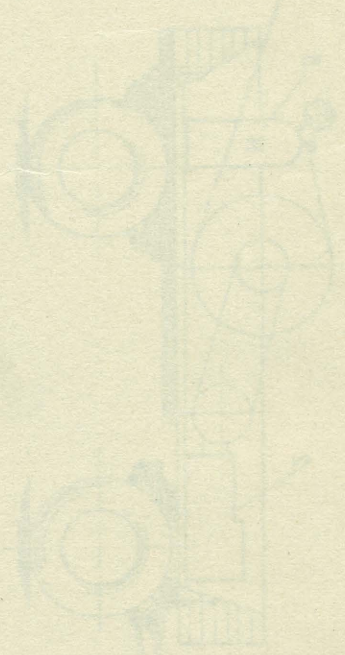
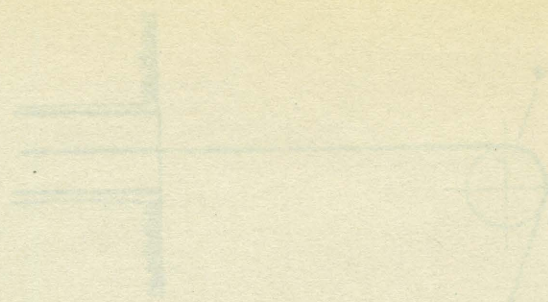
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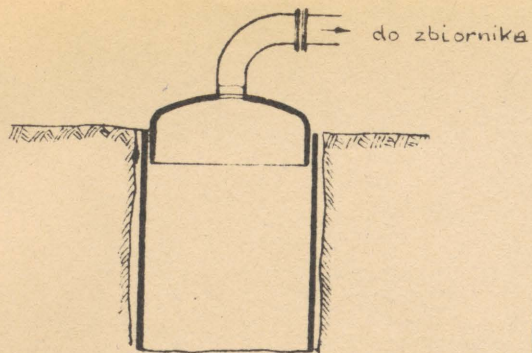




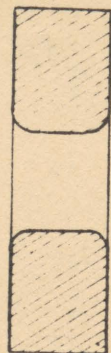
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Rys.: 48.

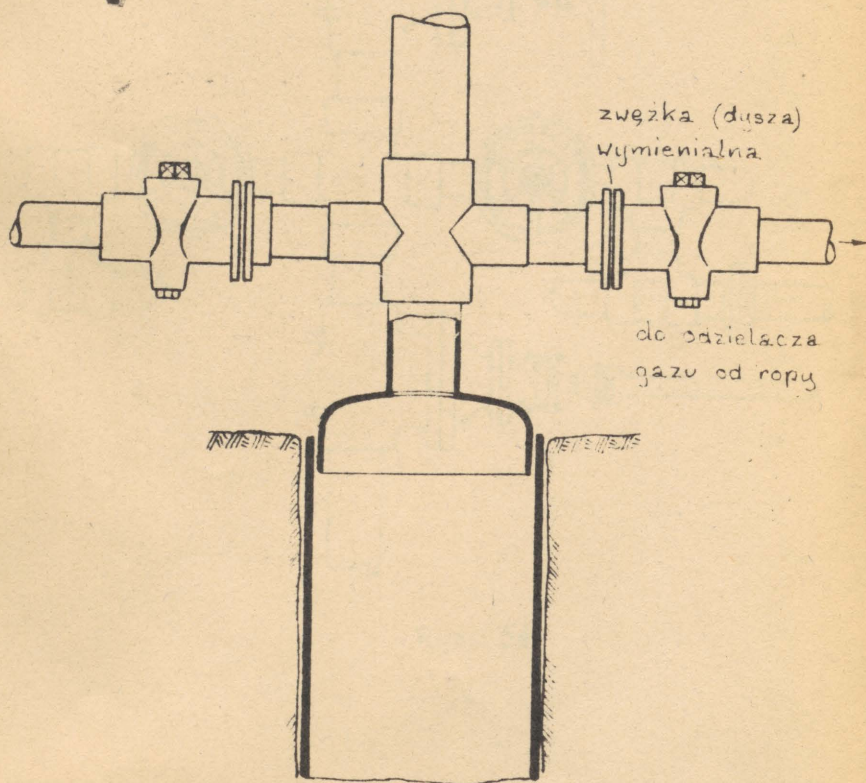




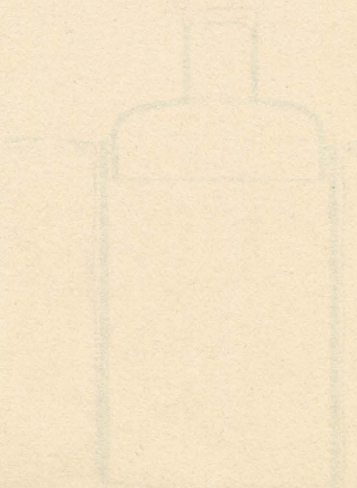
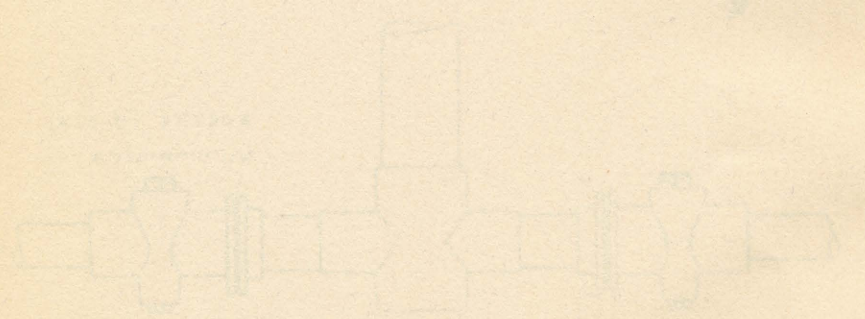
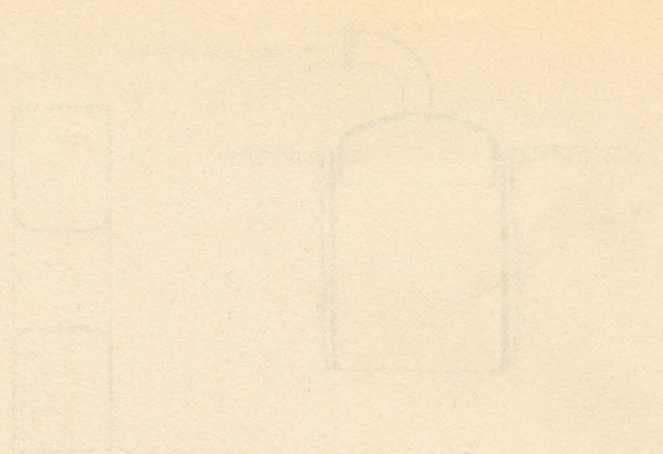
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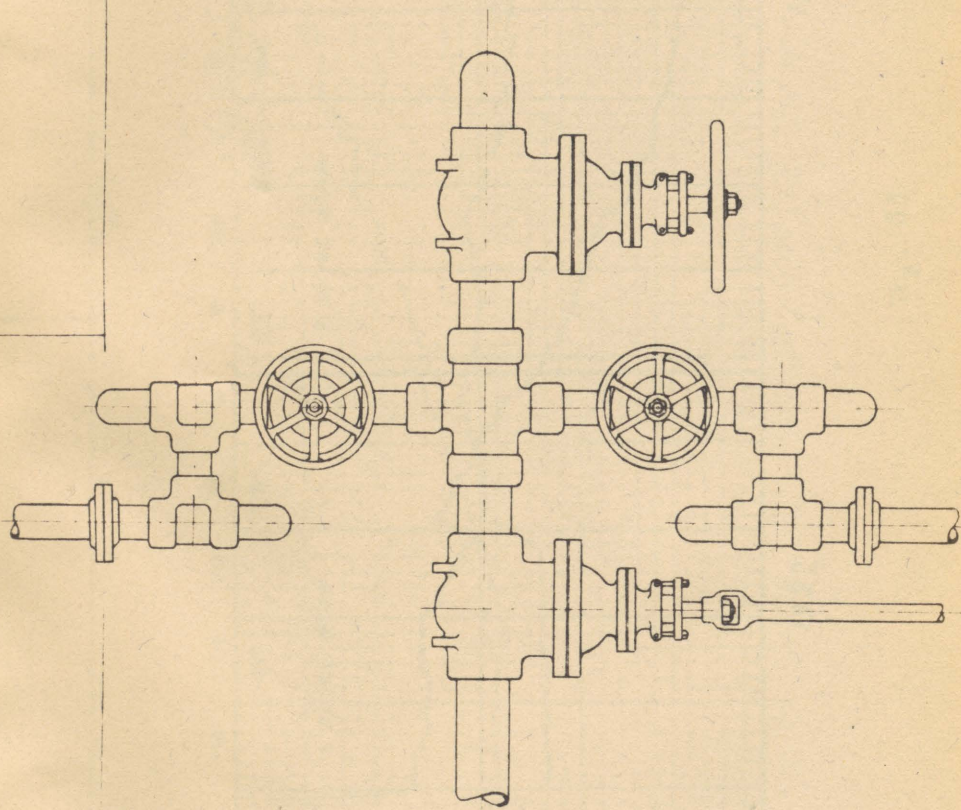


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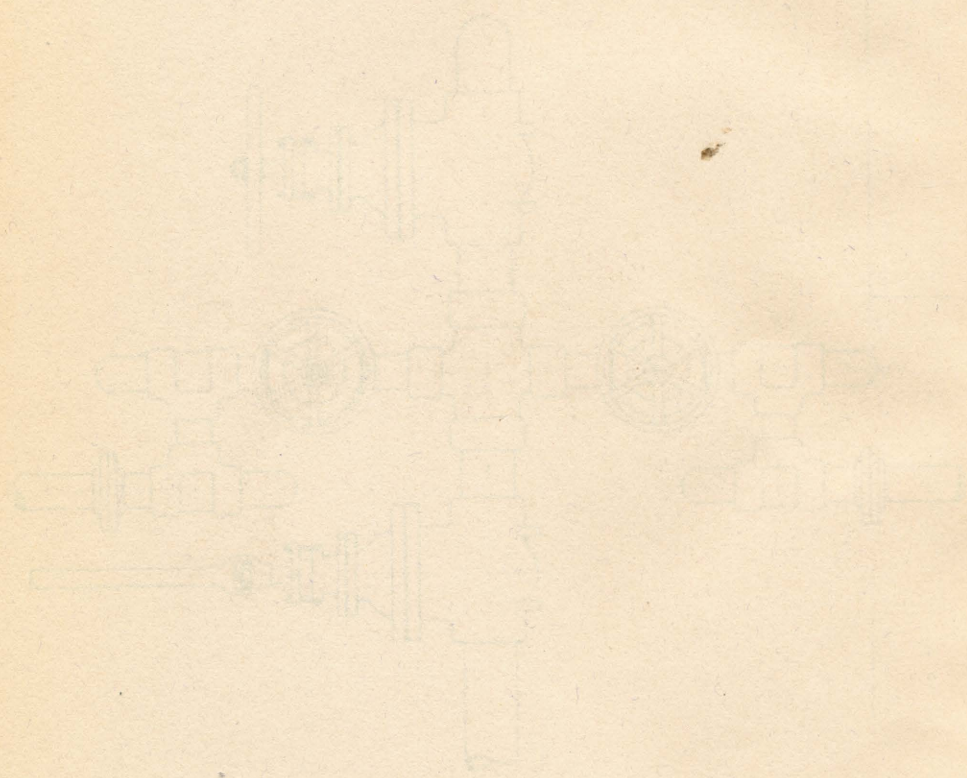


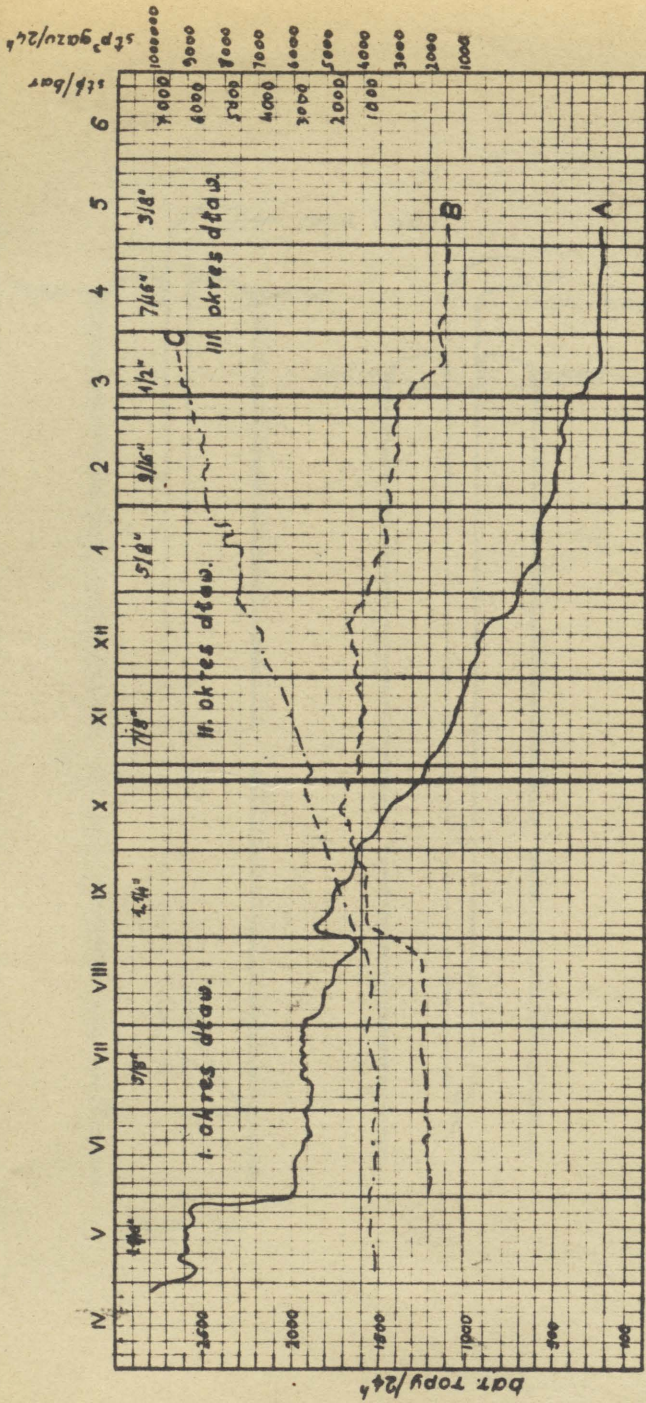
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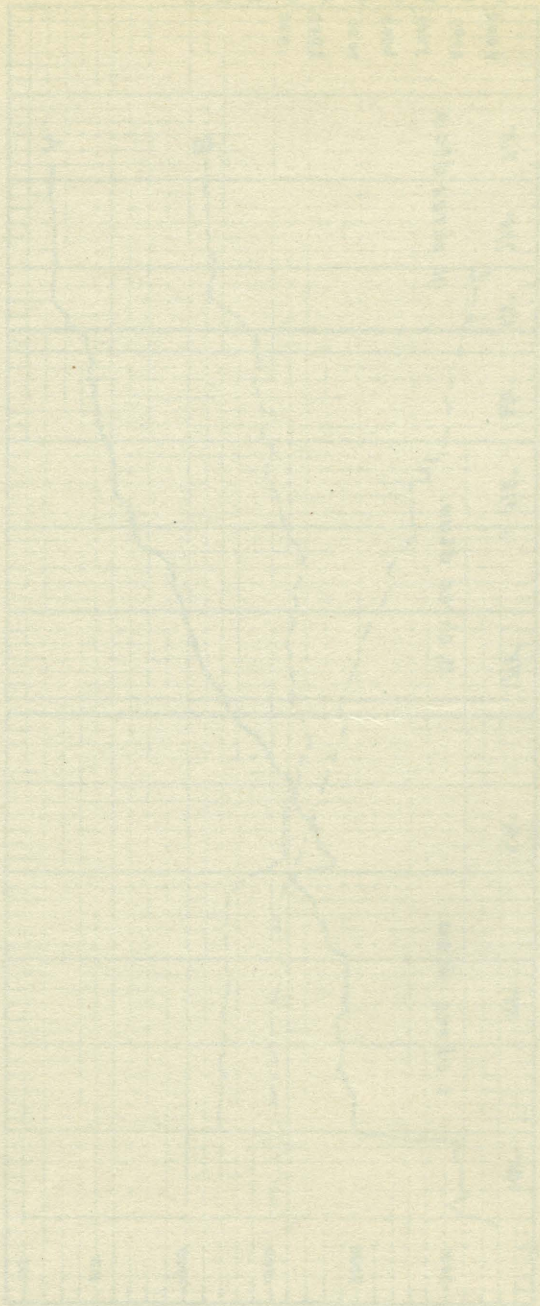


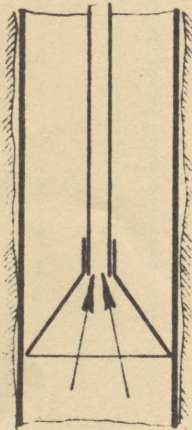
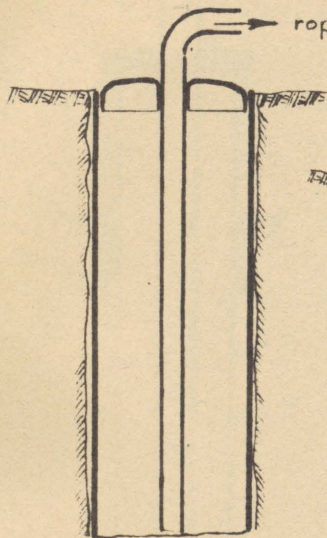


1927

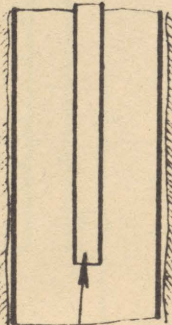
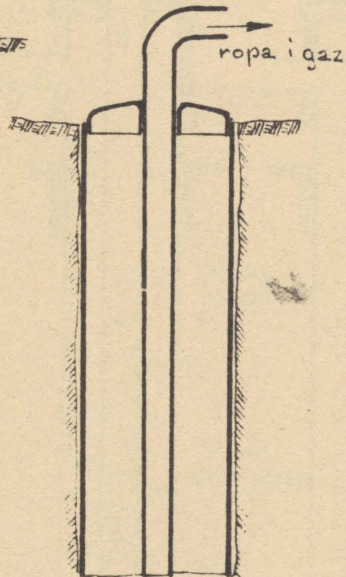
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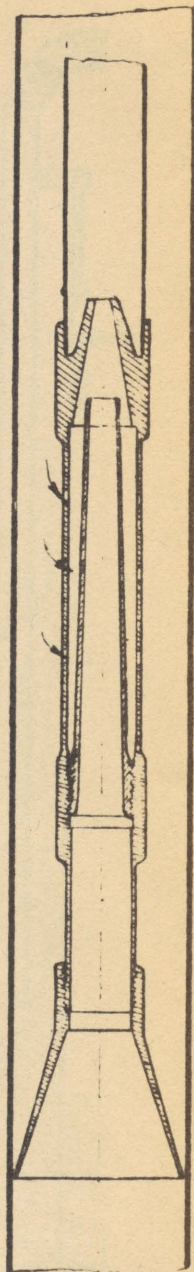




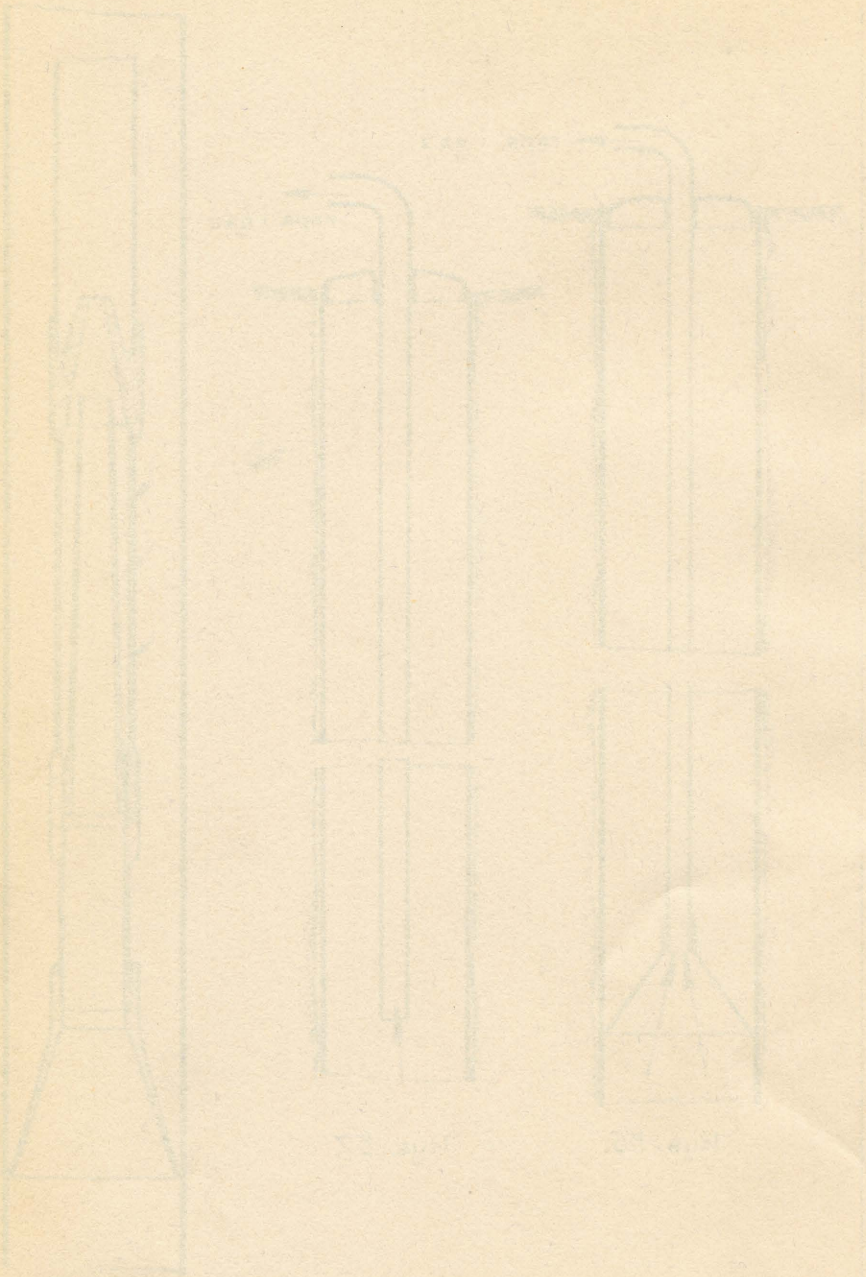
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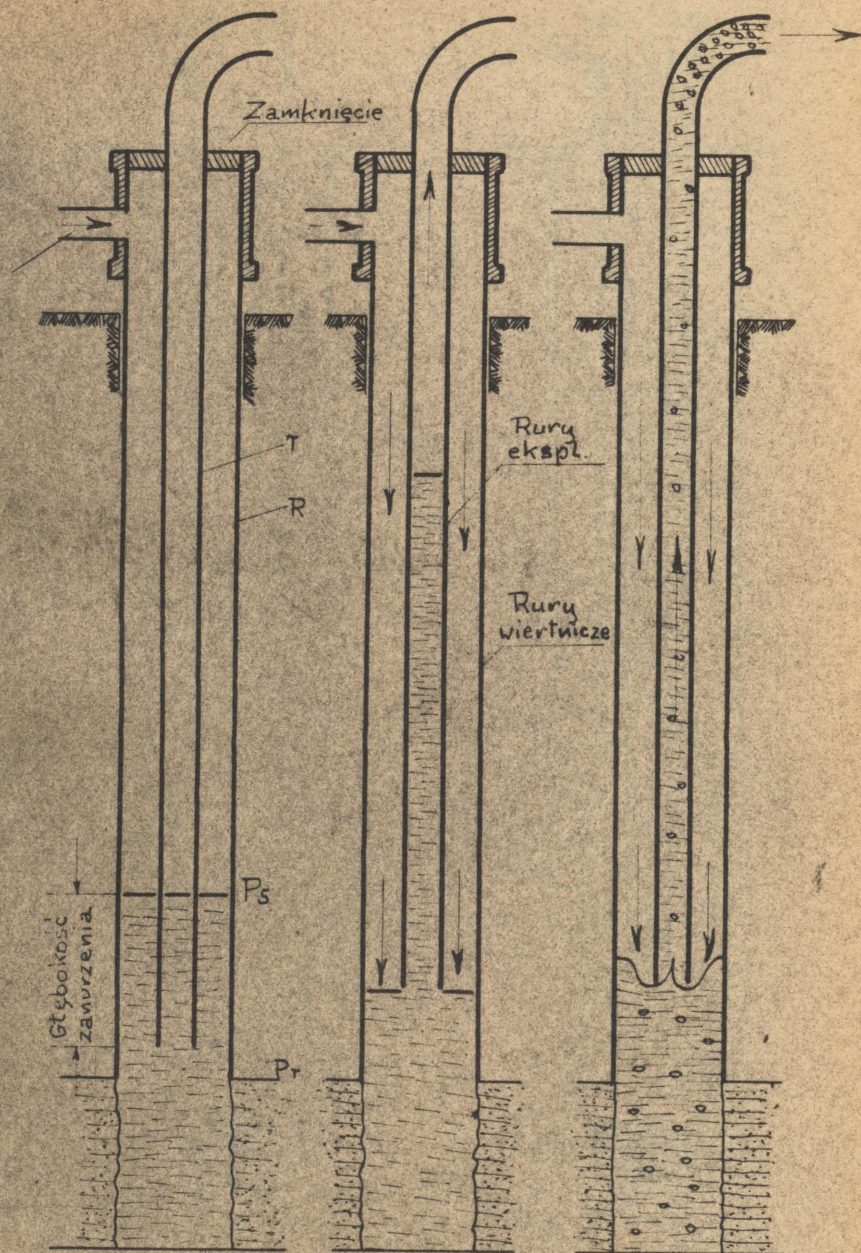


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Rys.: 58.

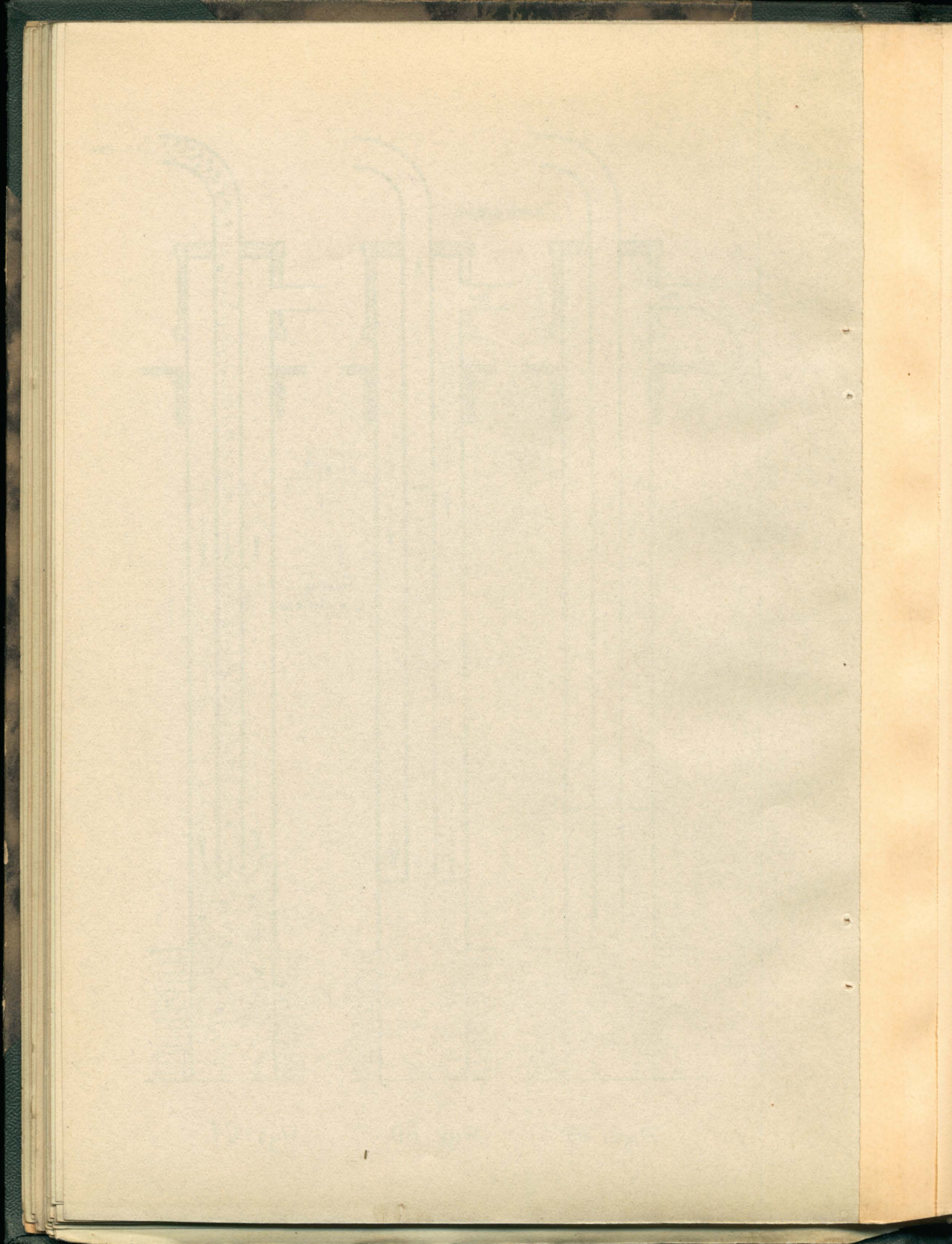


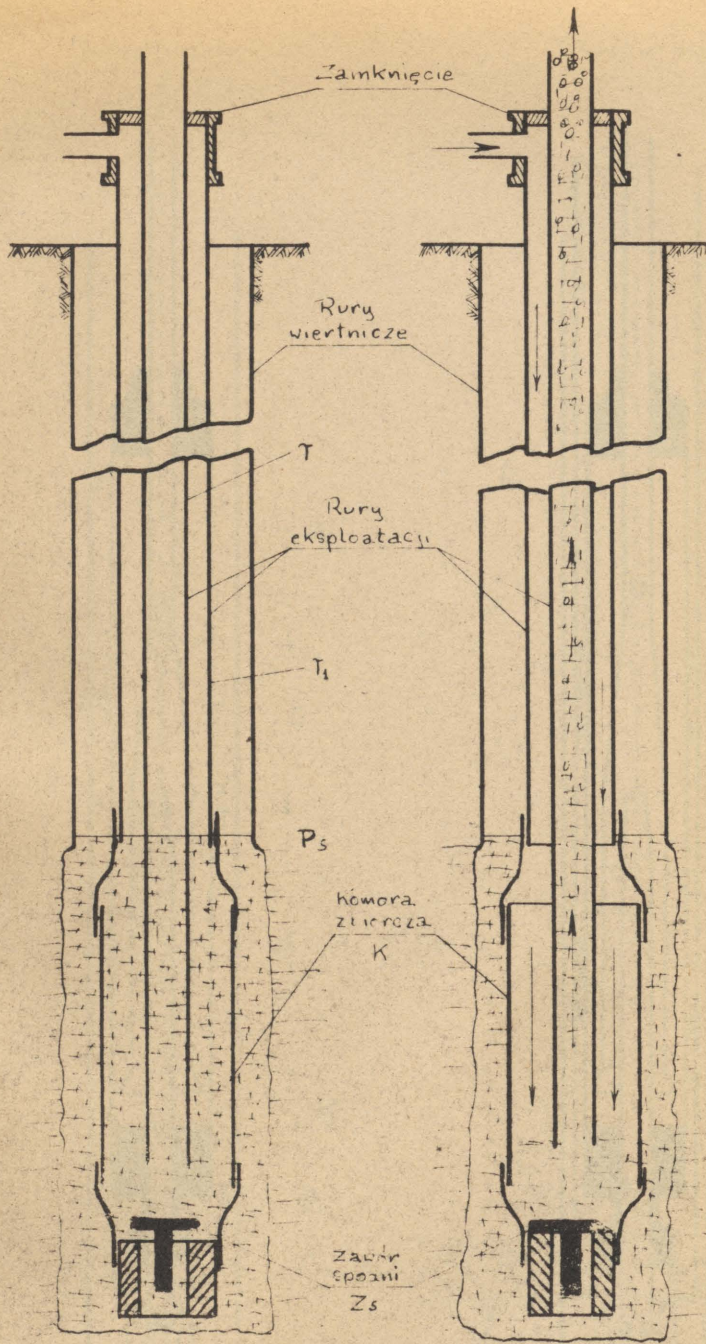


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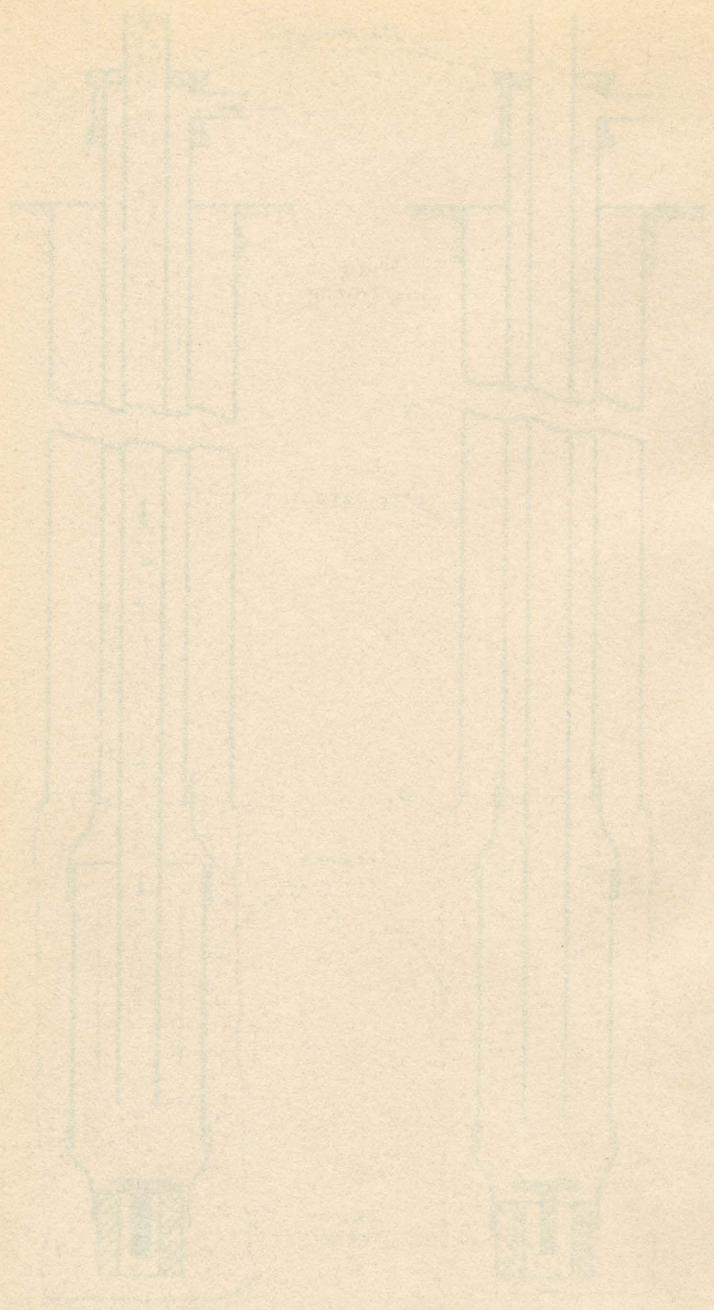
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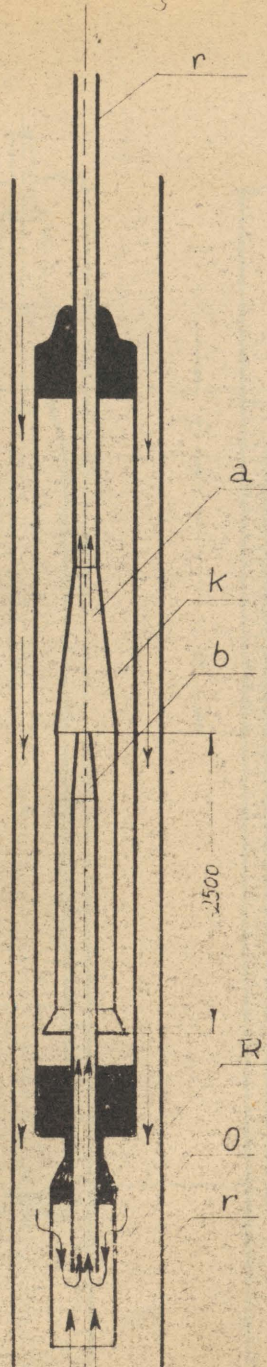
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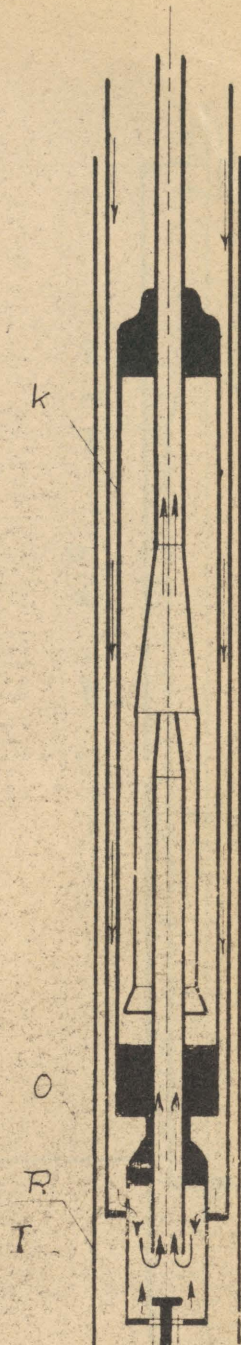


Jednoturowy

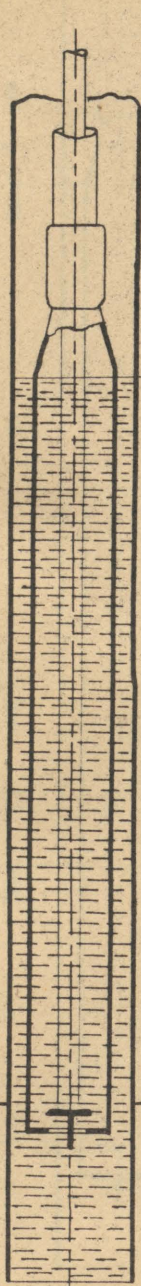
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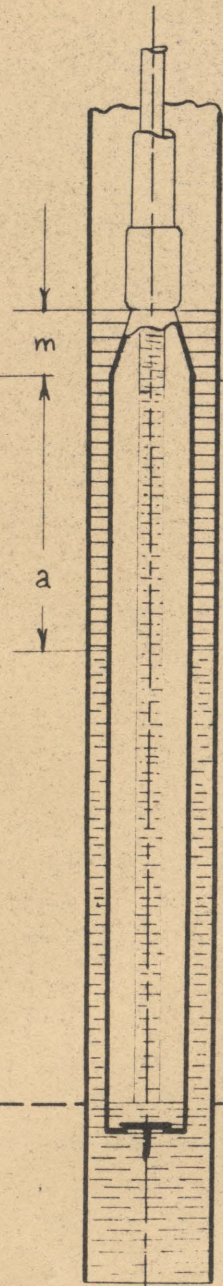
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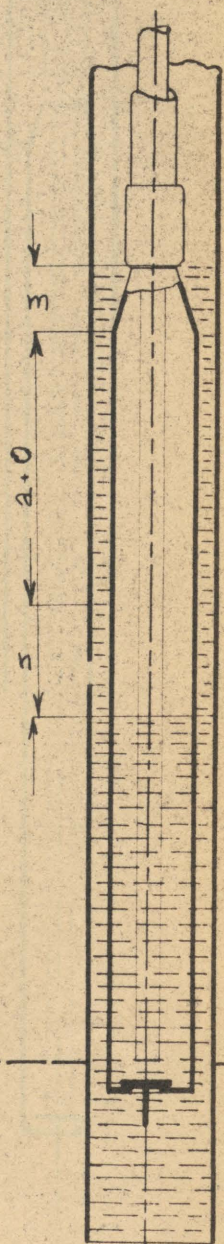
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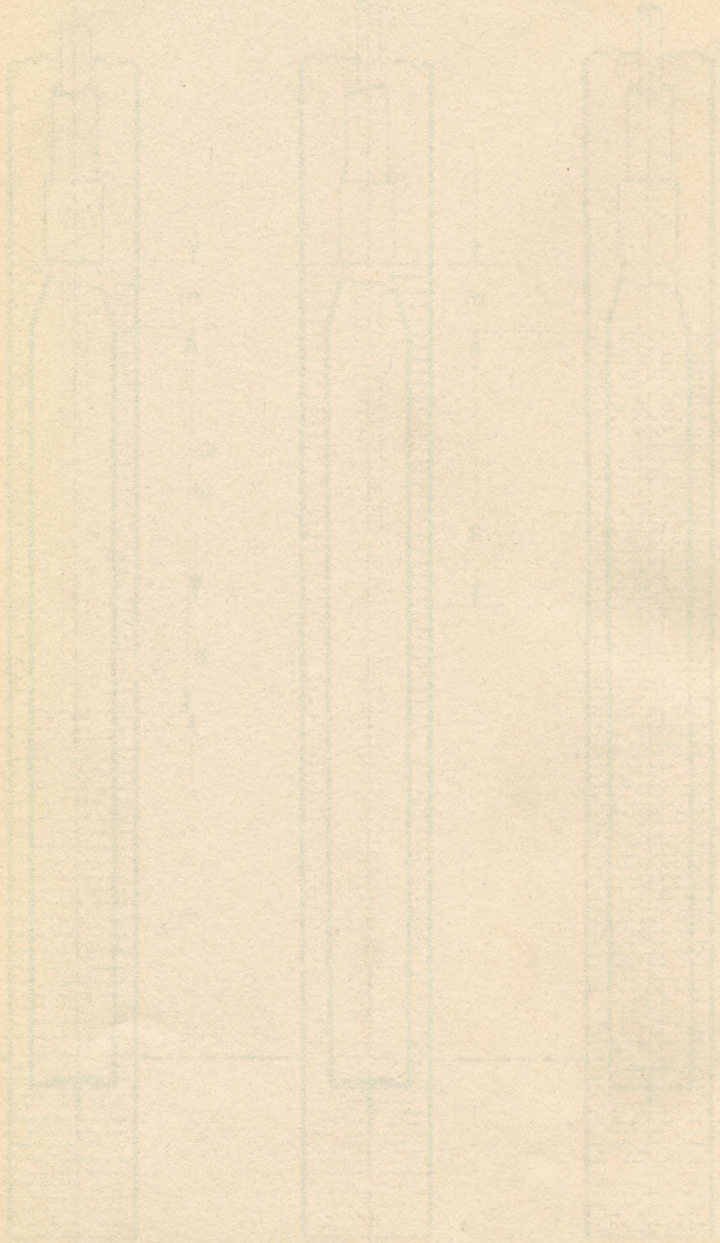
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Rys.: 67.

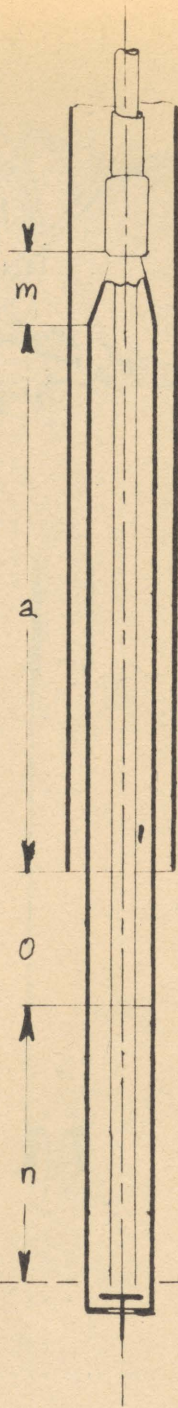


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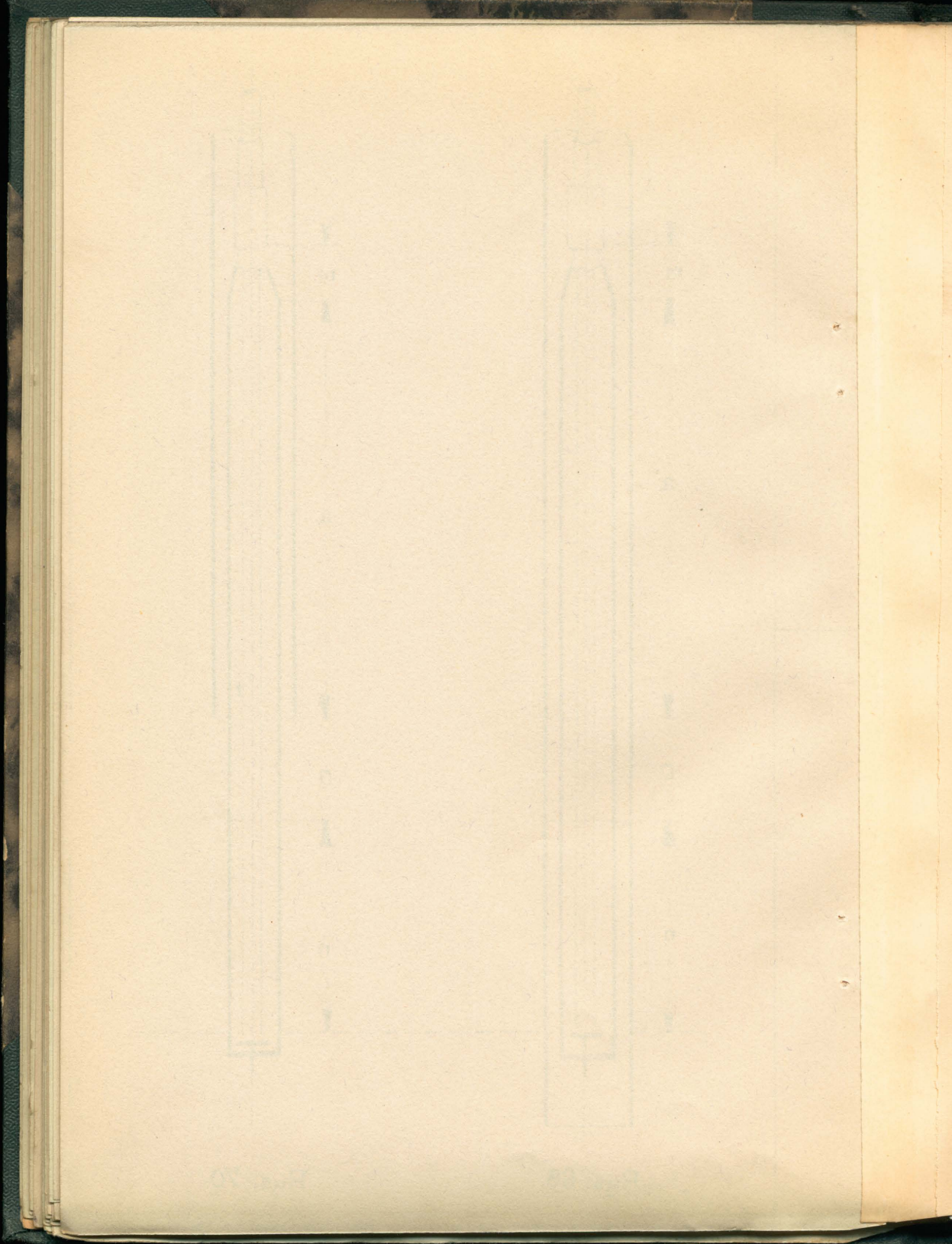


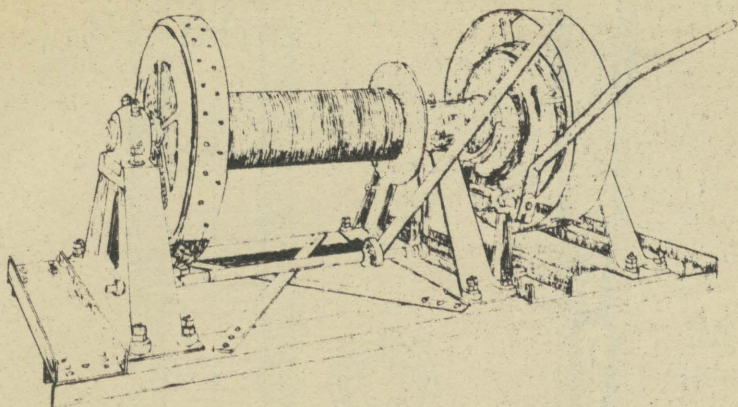


Rys. 69.

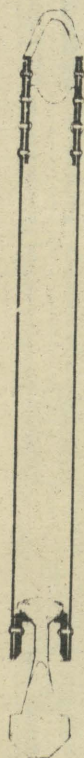


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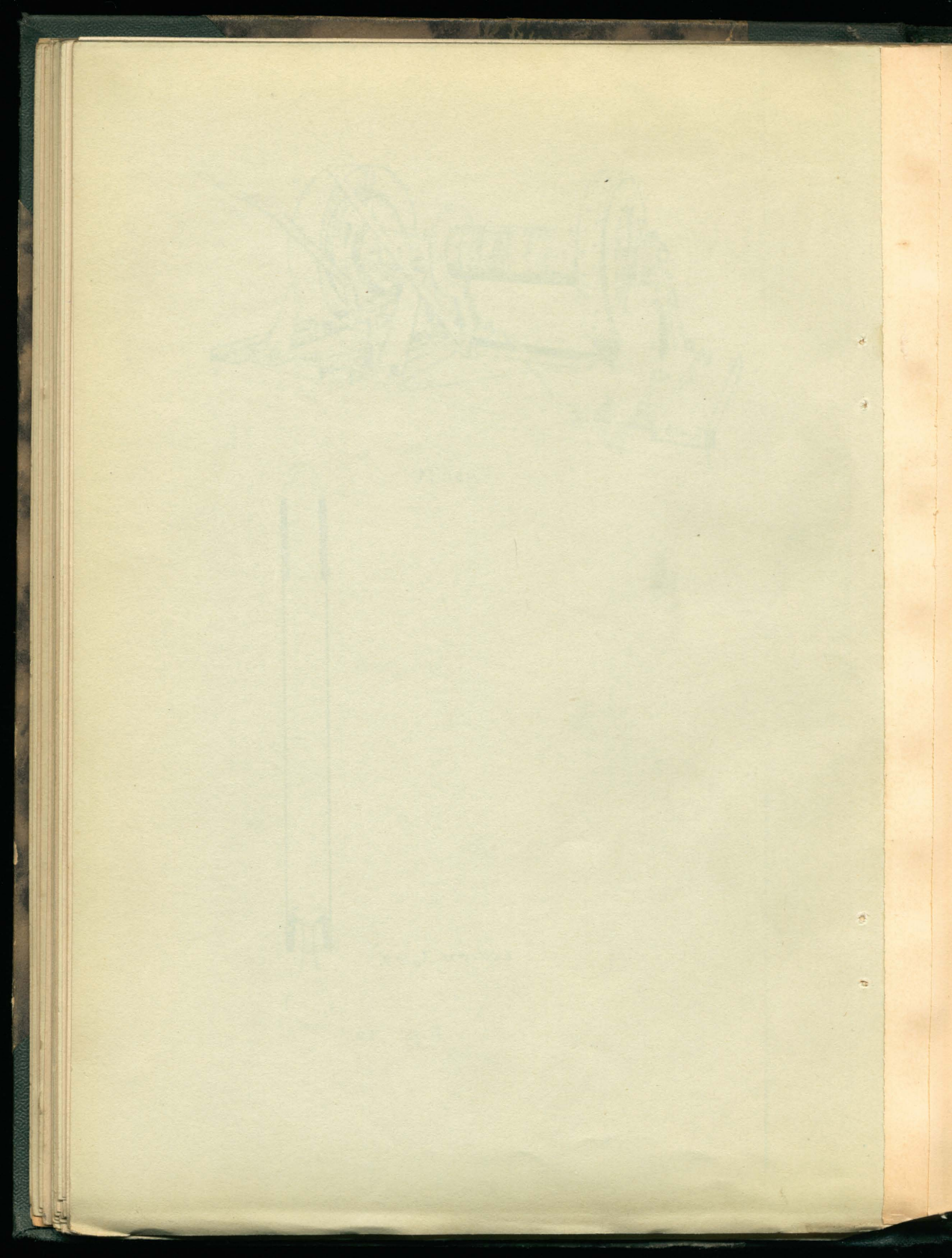


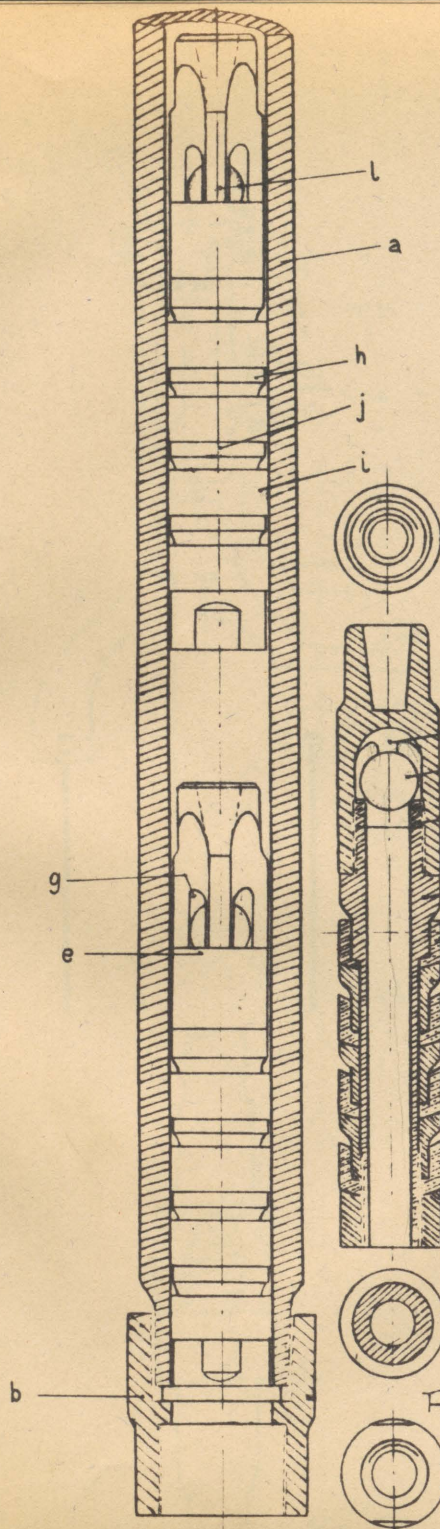
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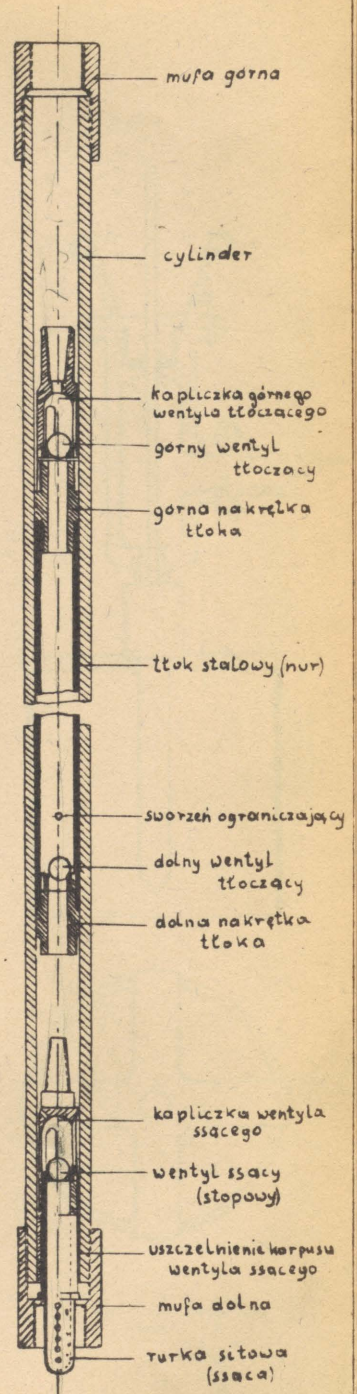
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Rys. 71a

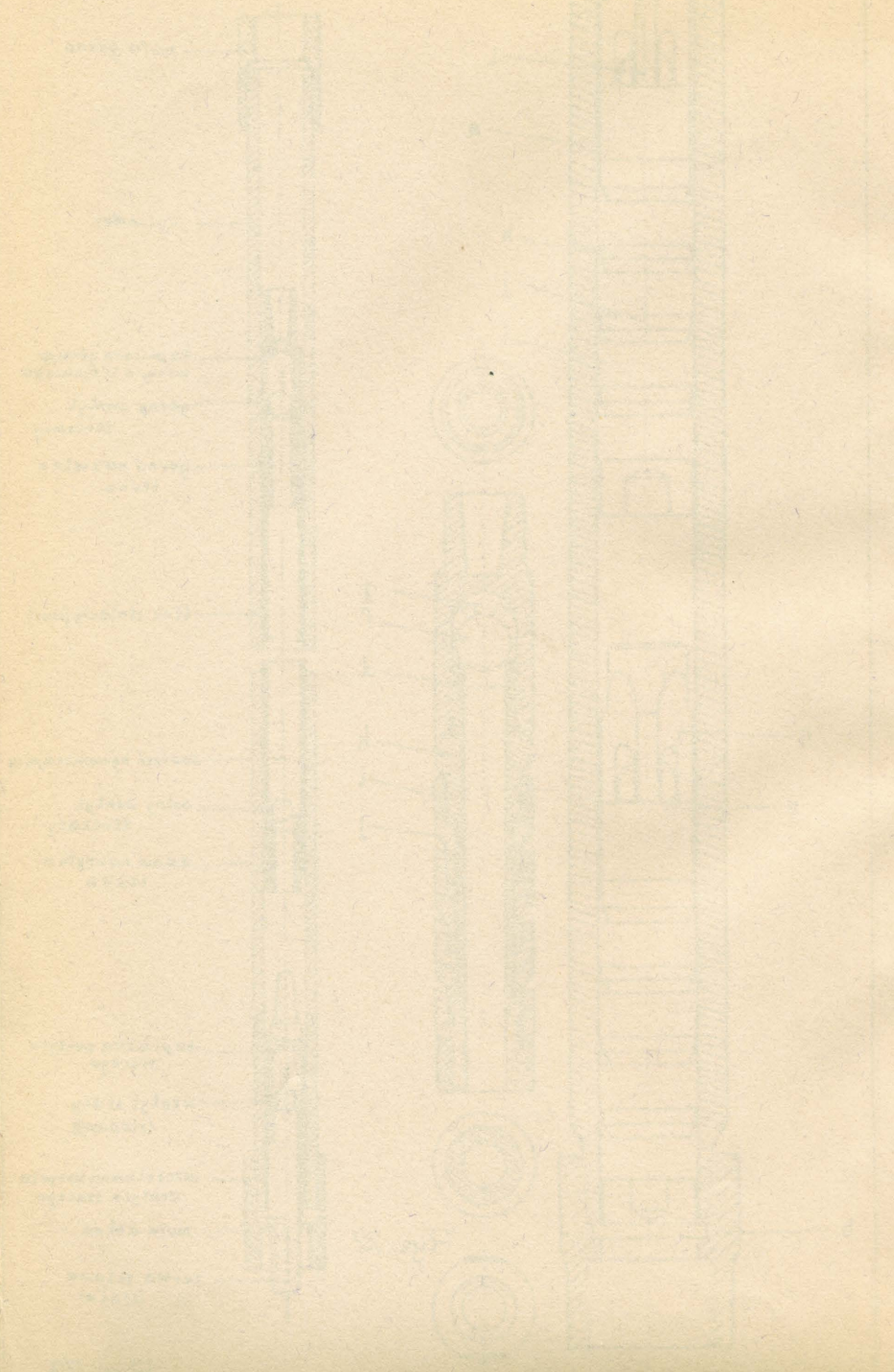


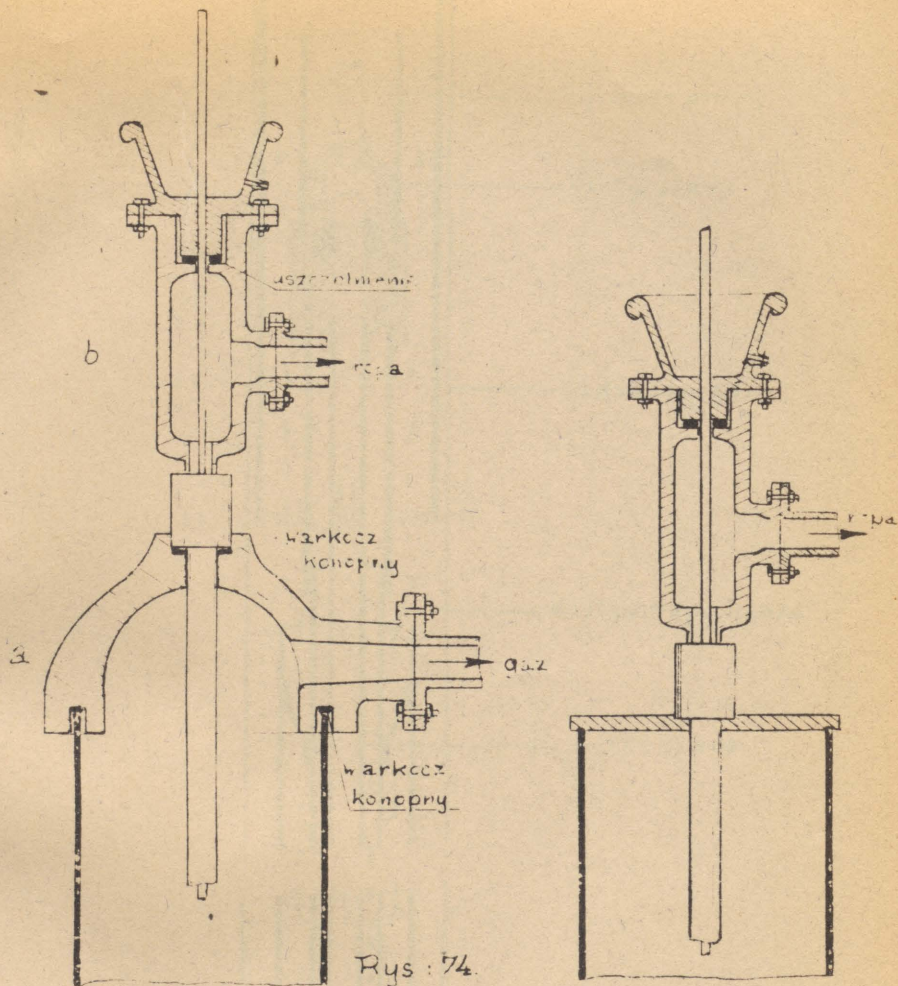


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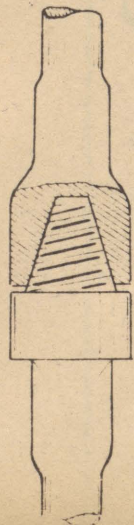


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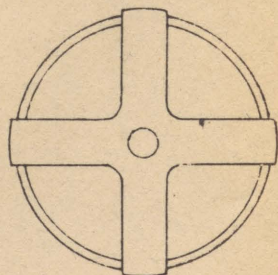




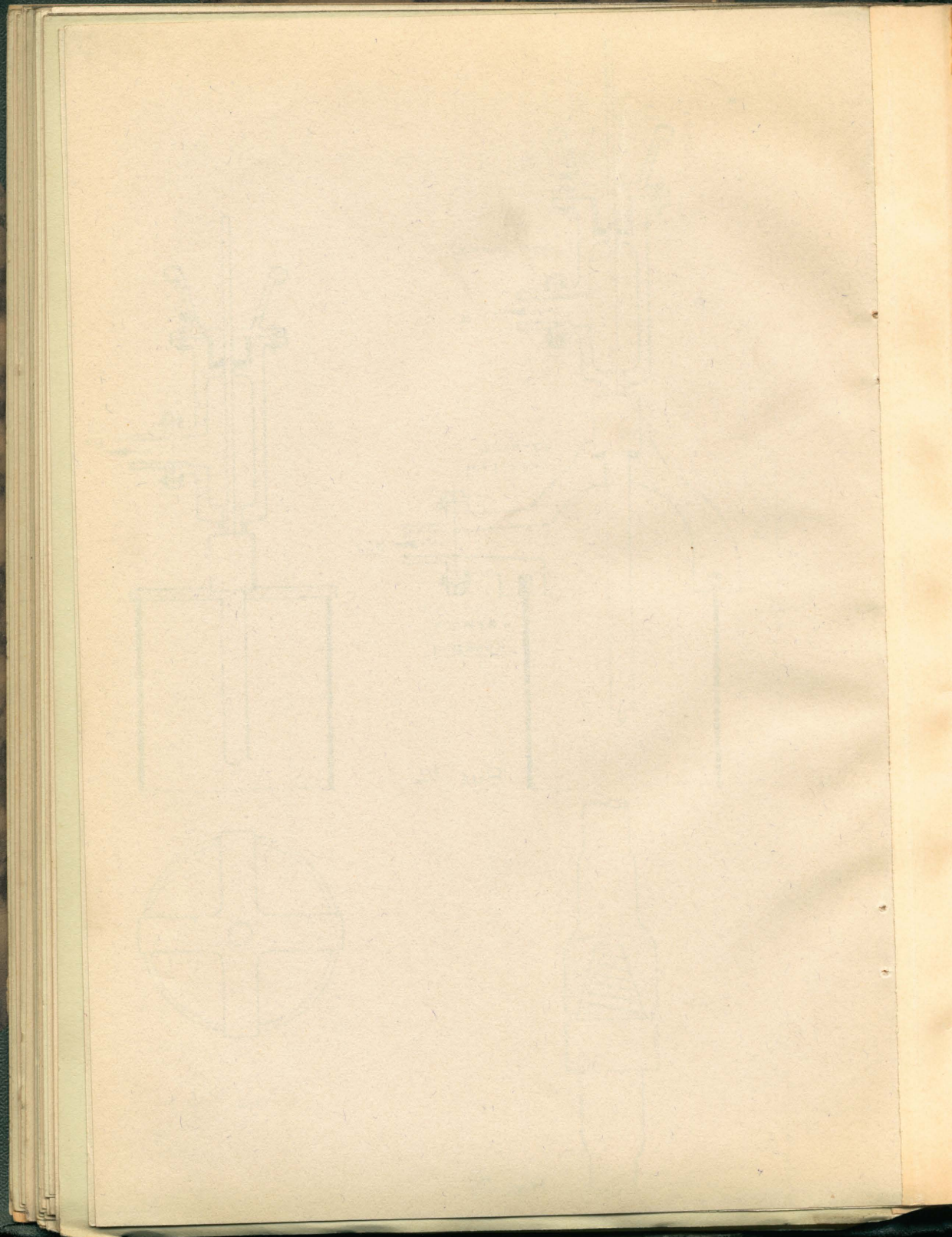
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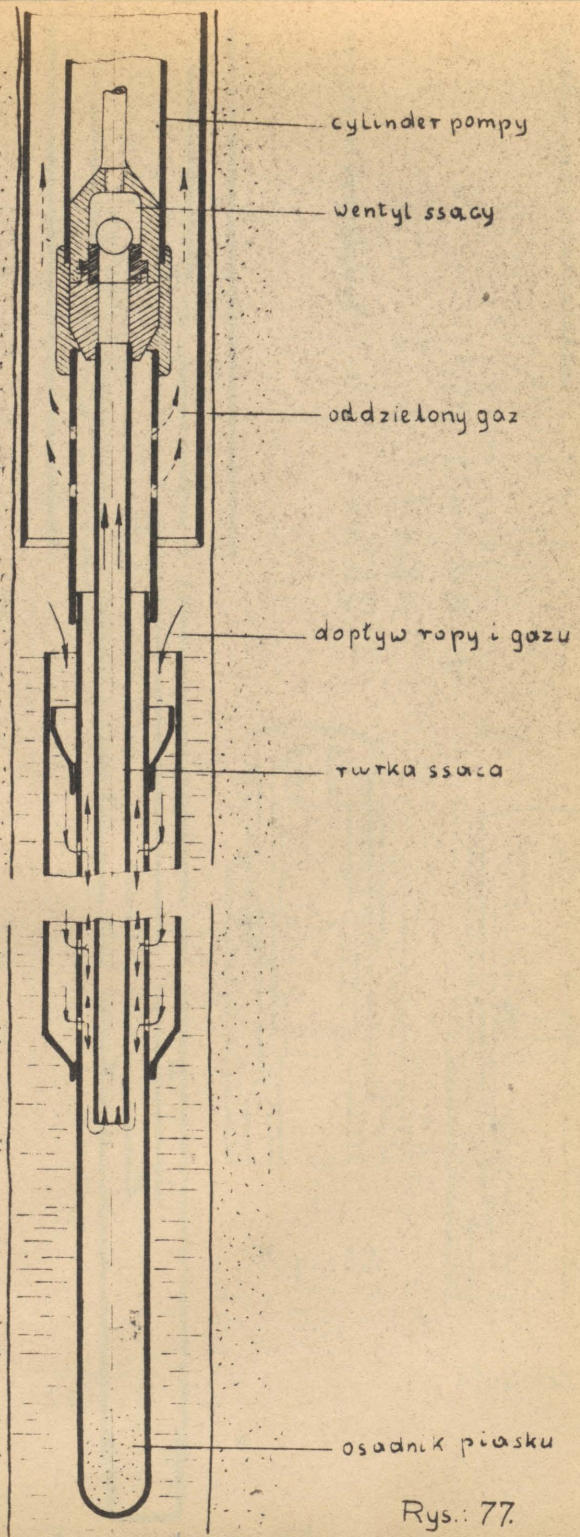


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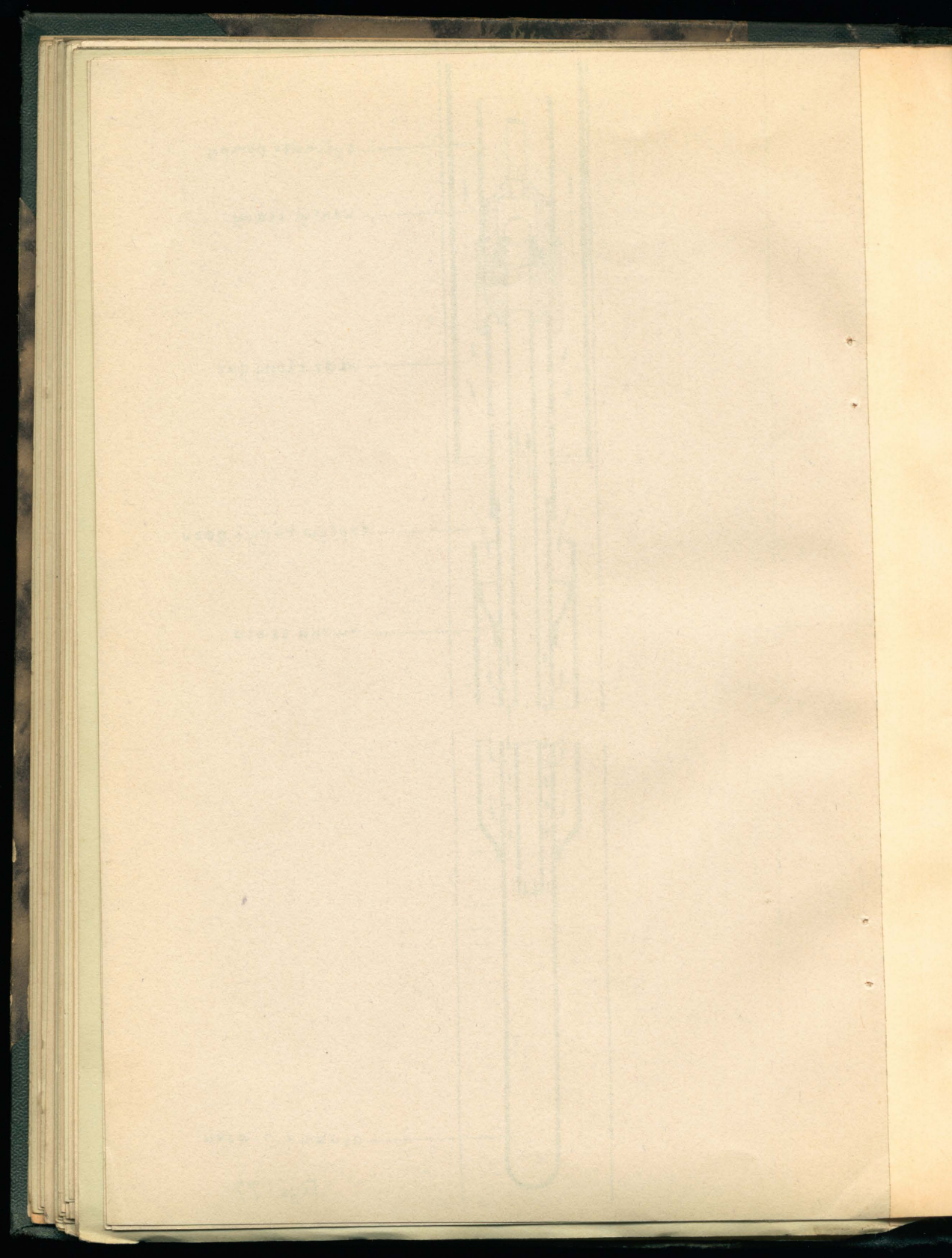


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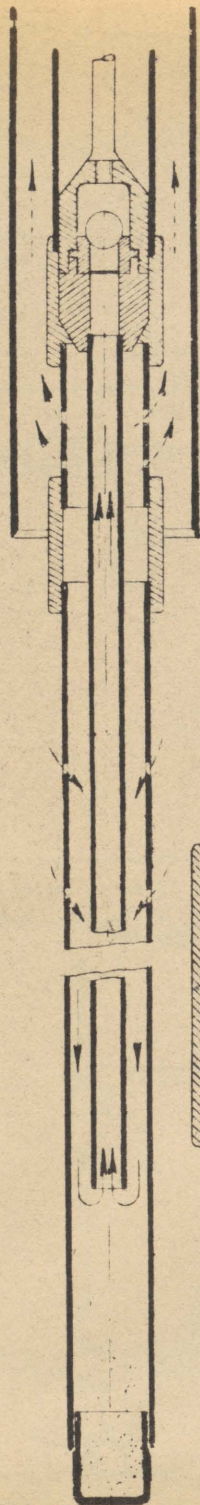


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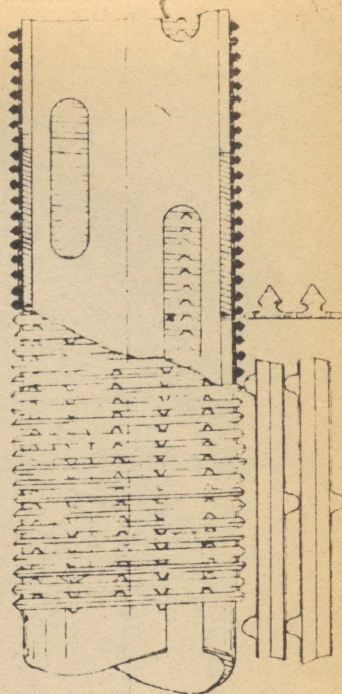




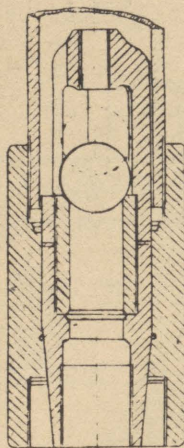
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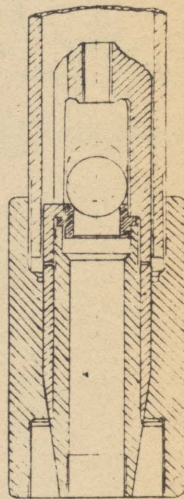
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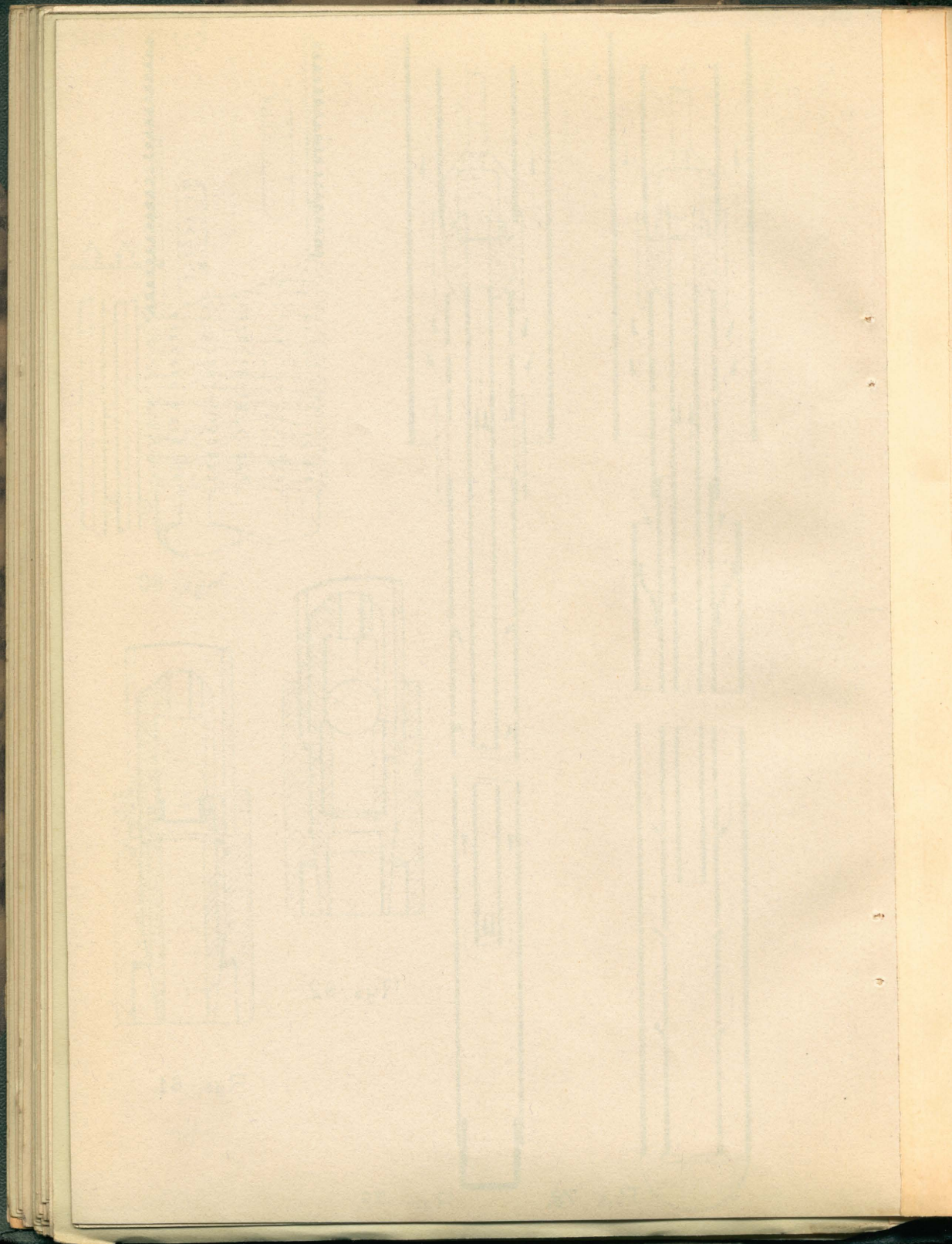
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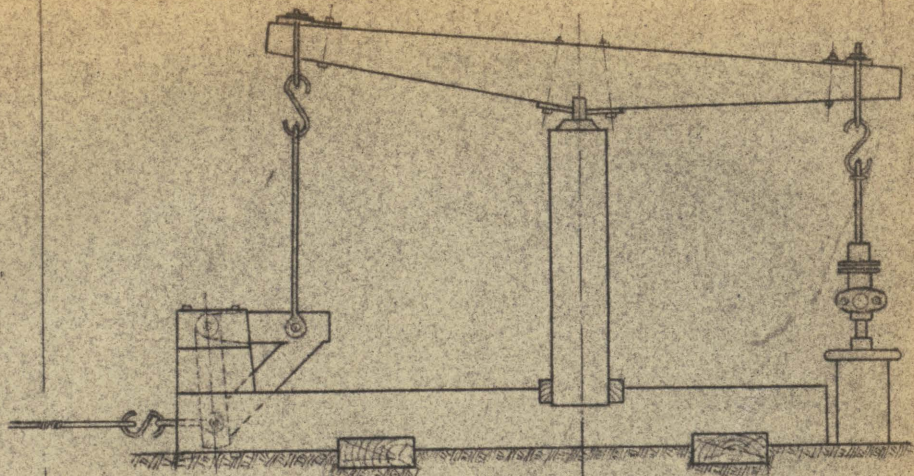


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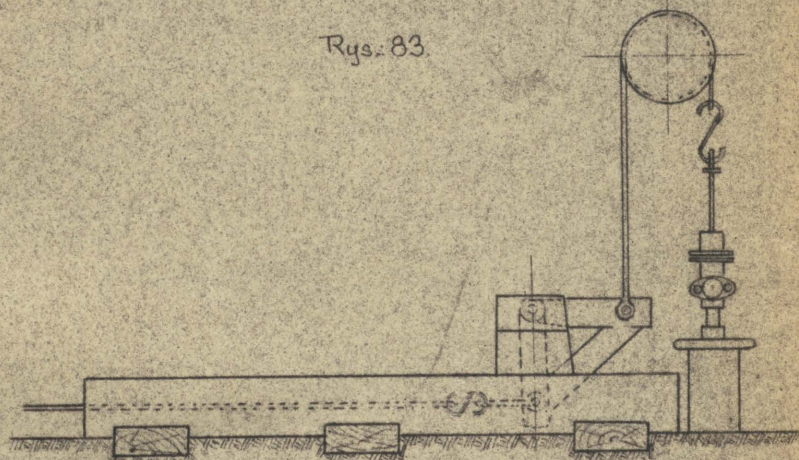


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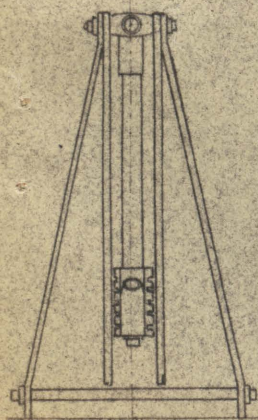




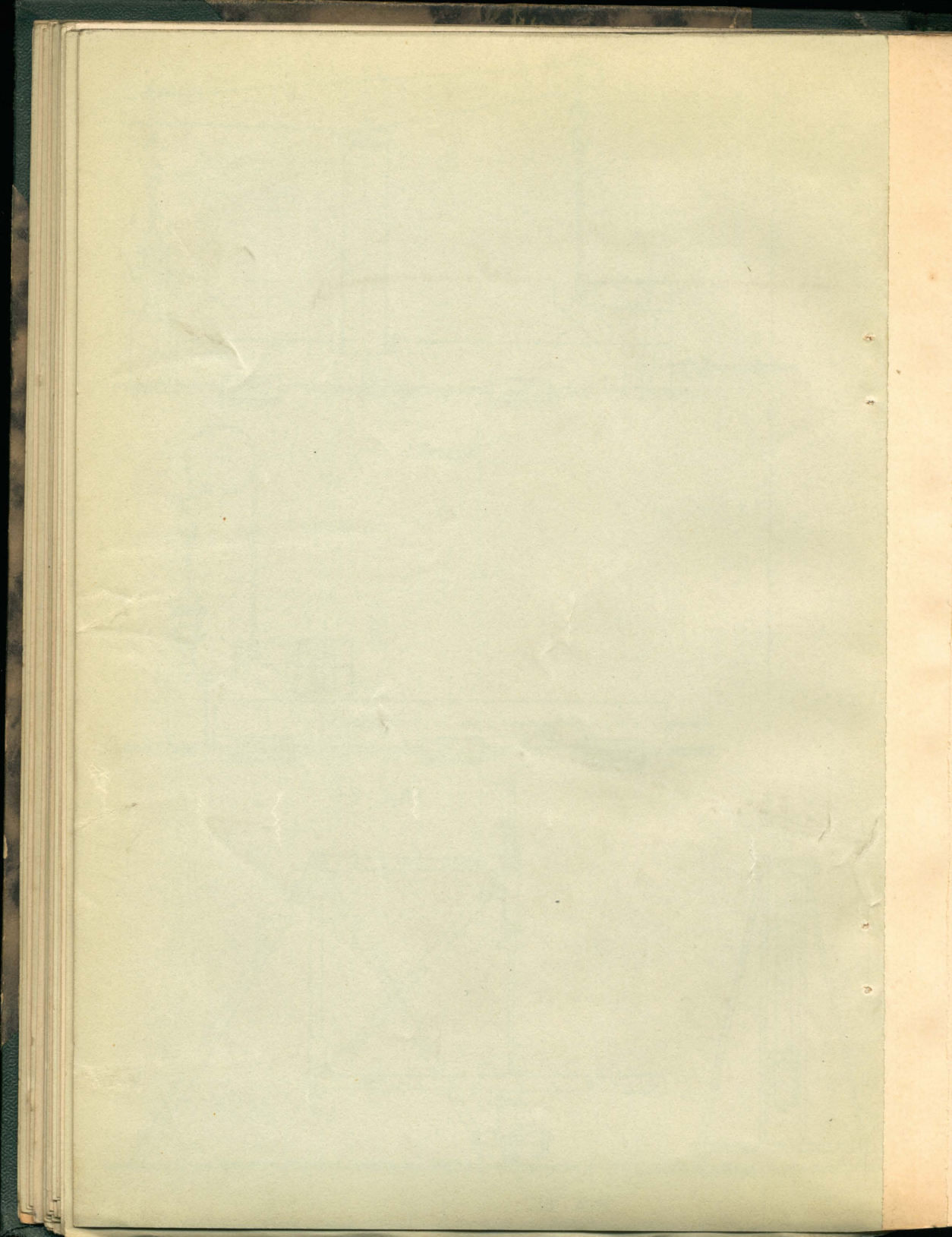
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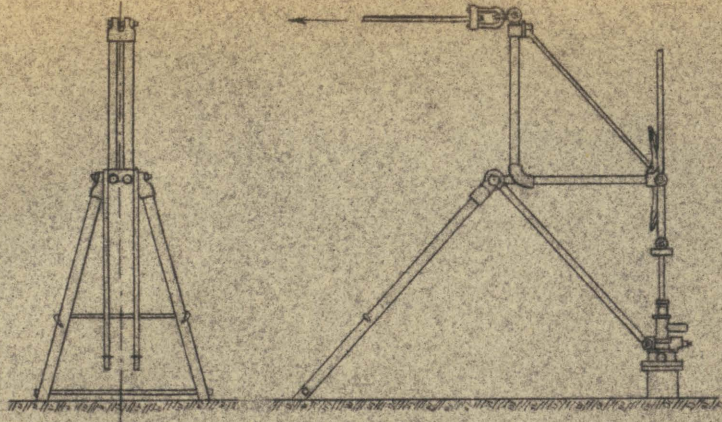


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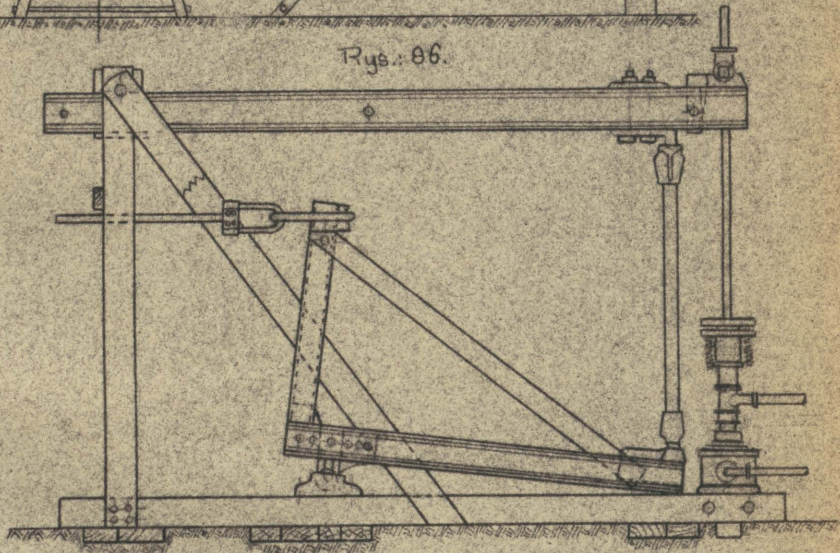


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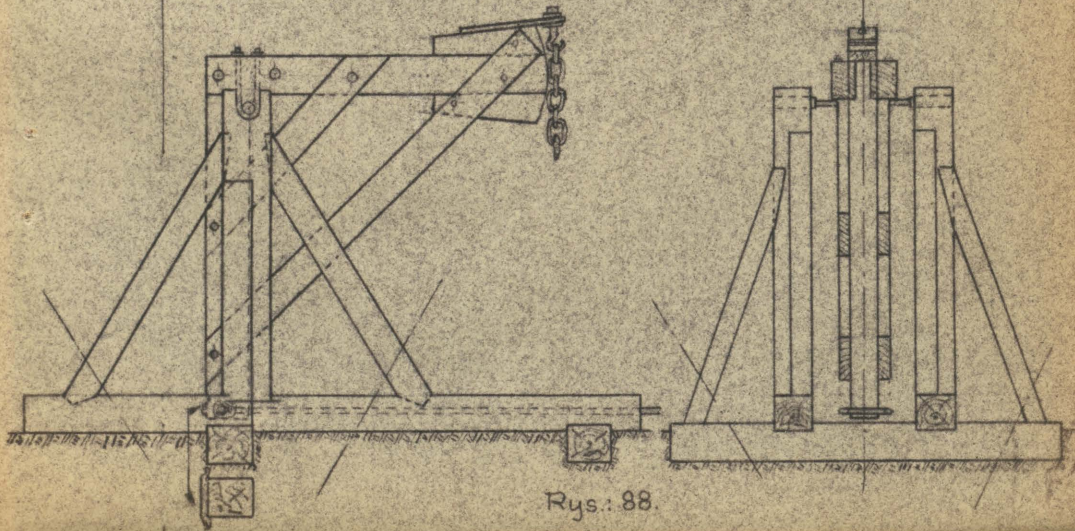




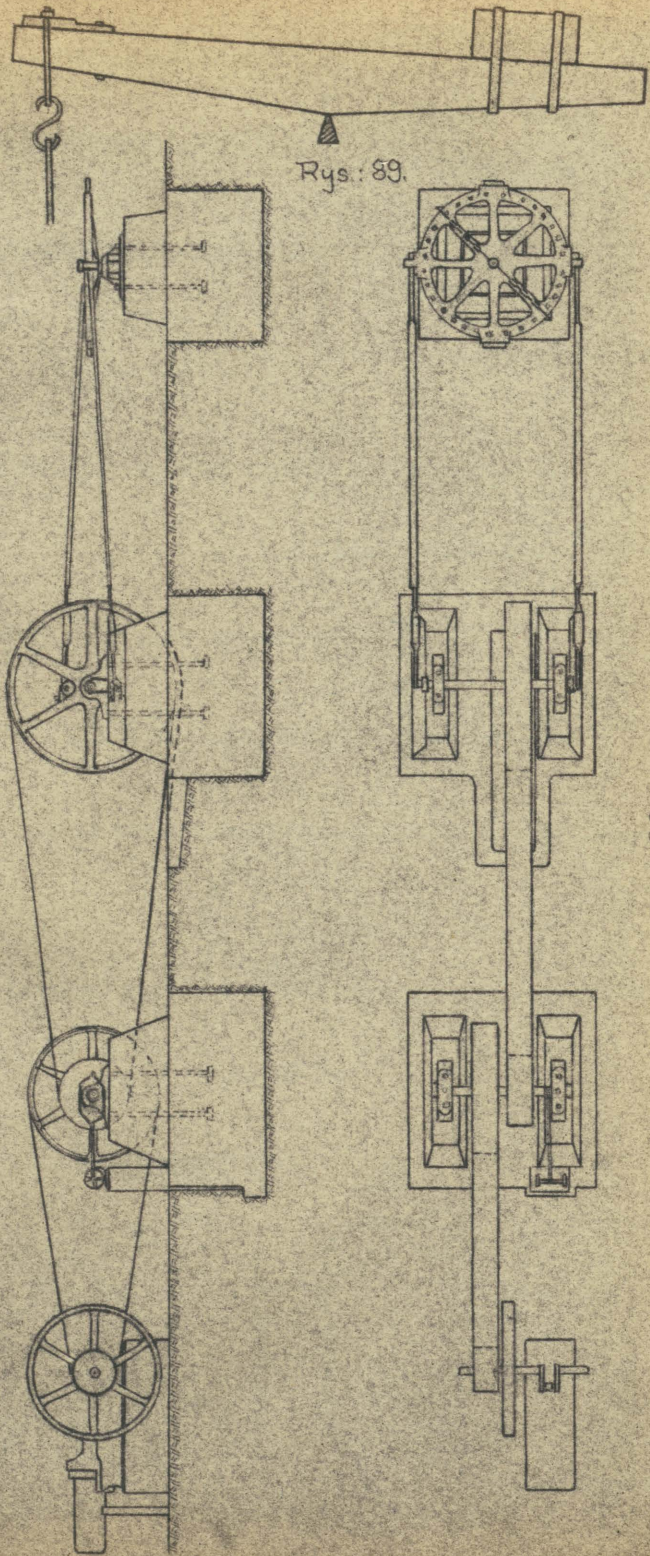
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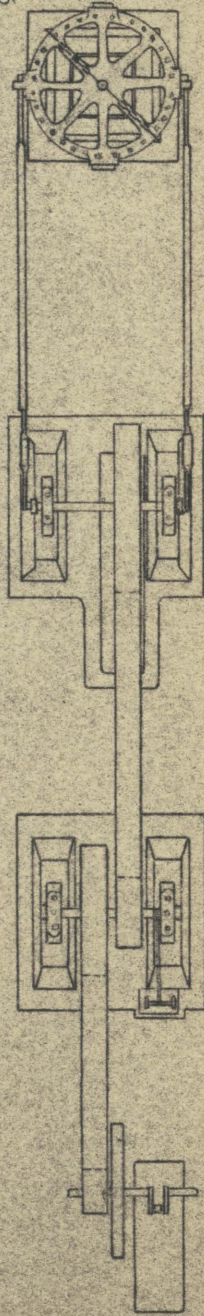
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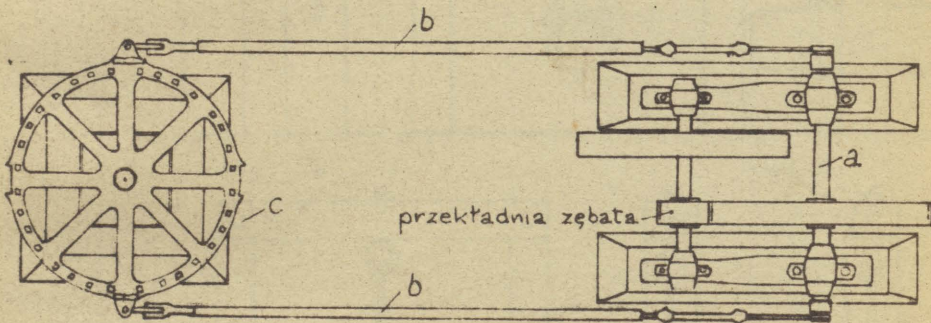
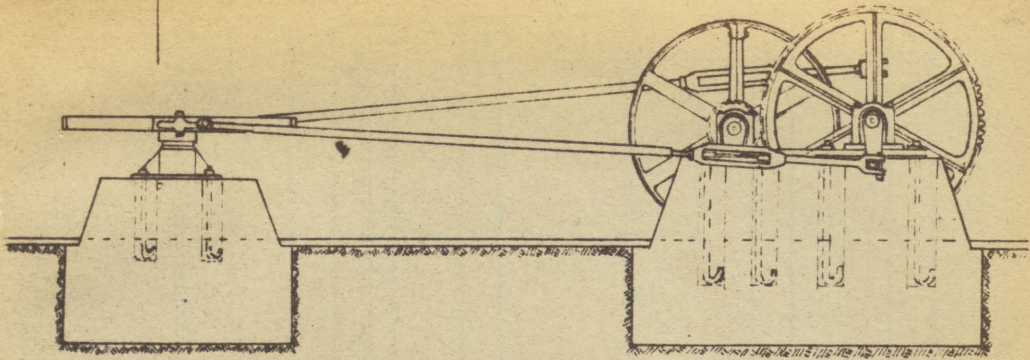
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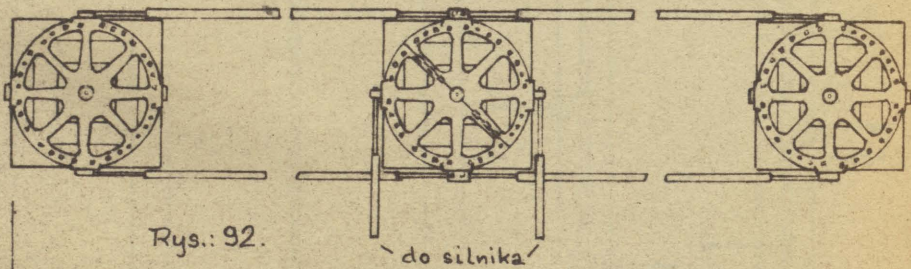
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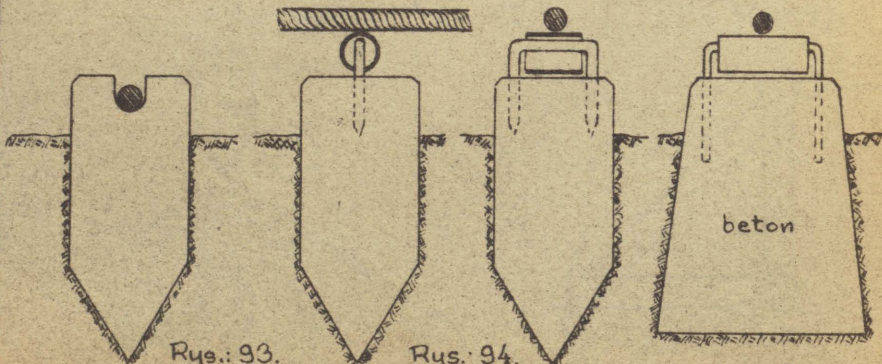
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Rys.: 91.



Rys.: 92.



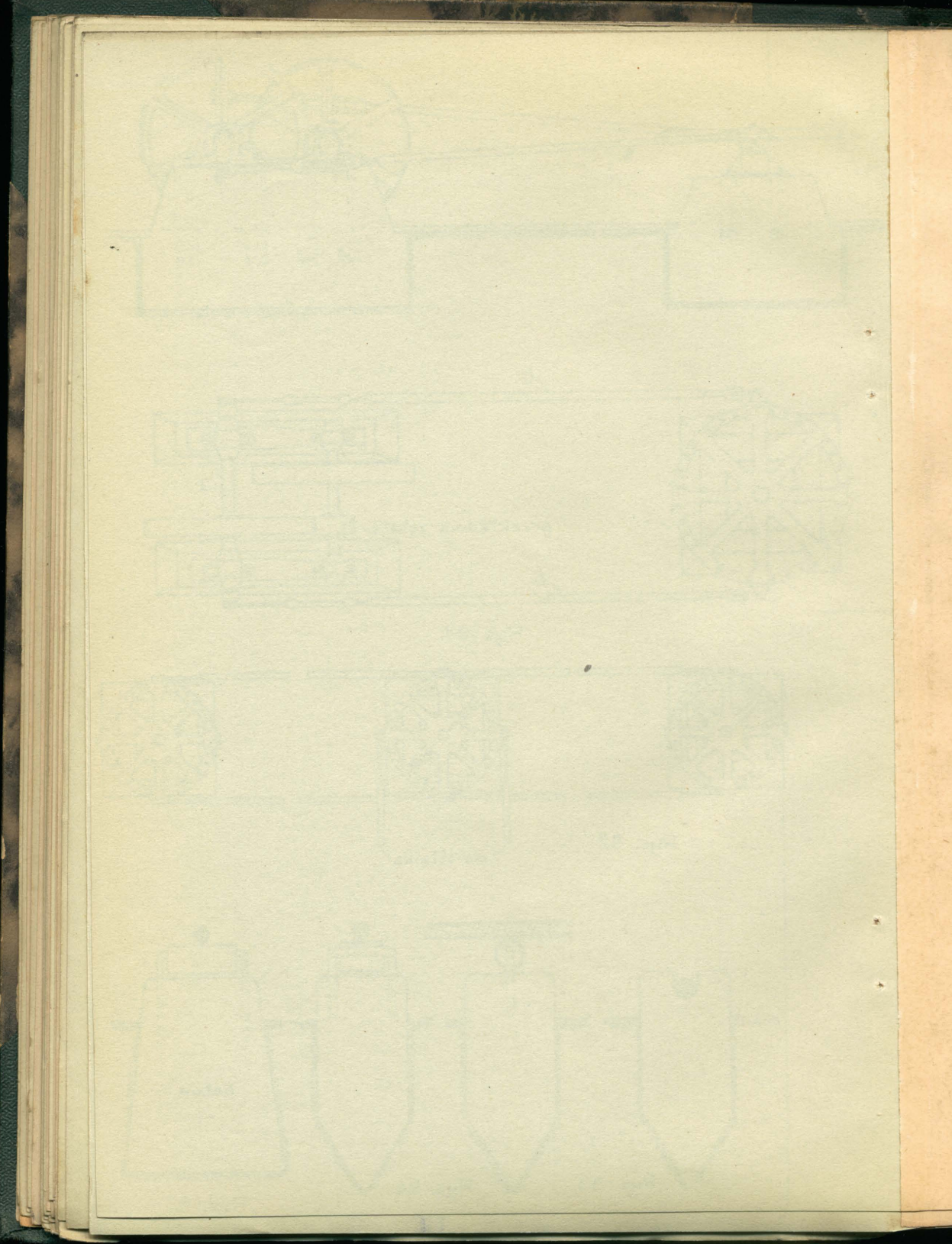
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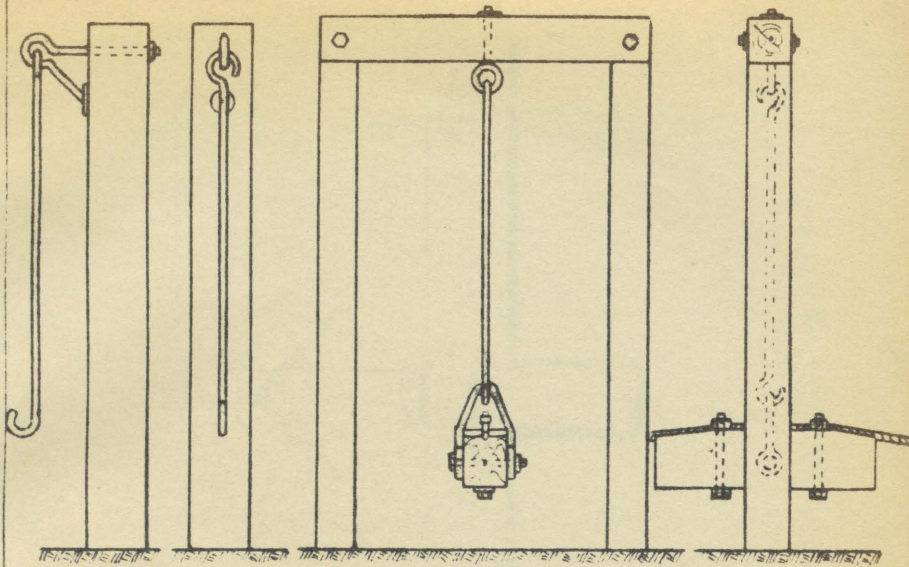
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Rys.: 95.

Rys.: 100

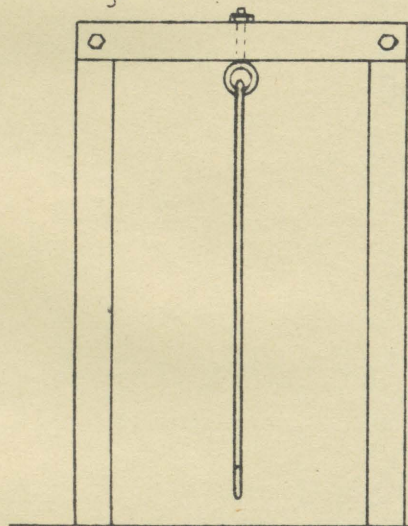
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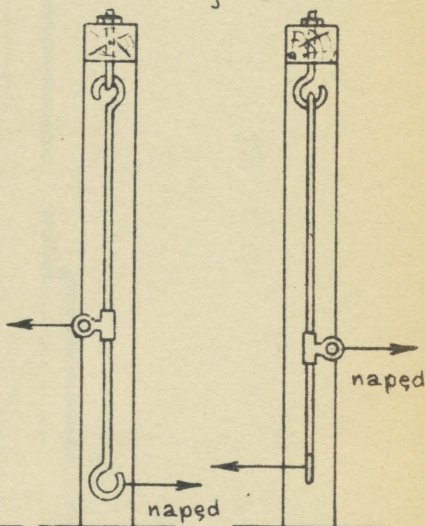


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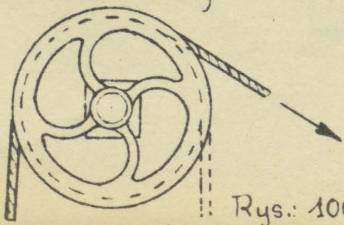
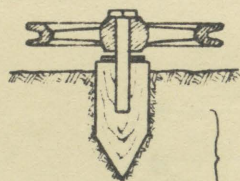
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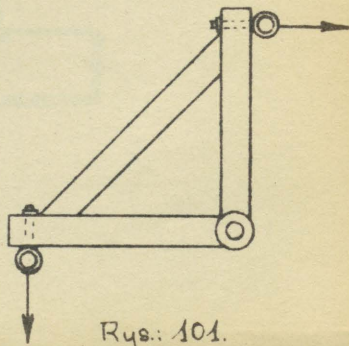
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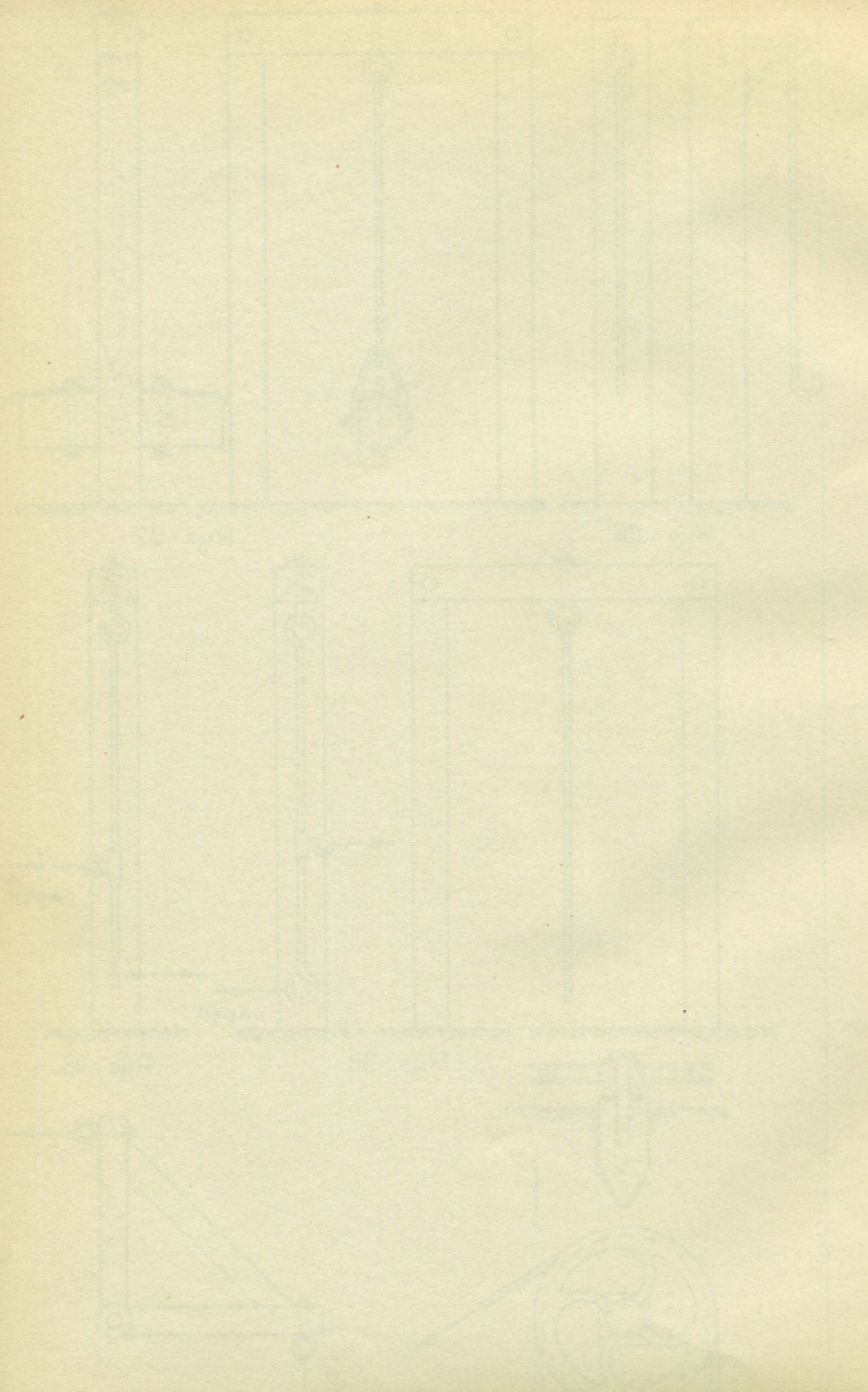
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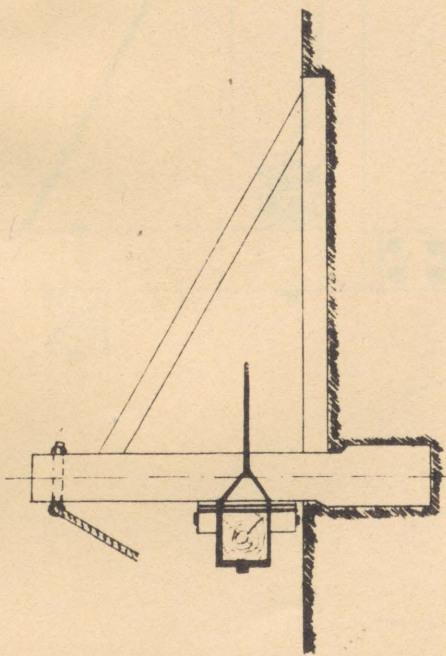
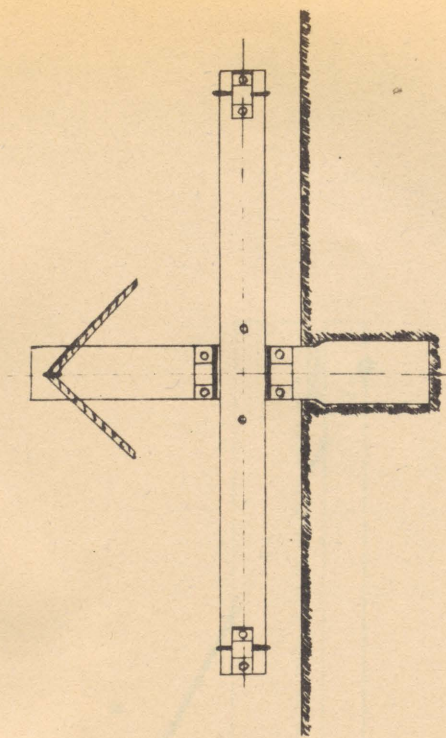


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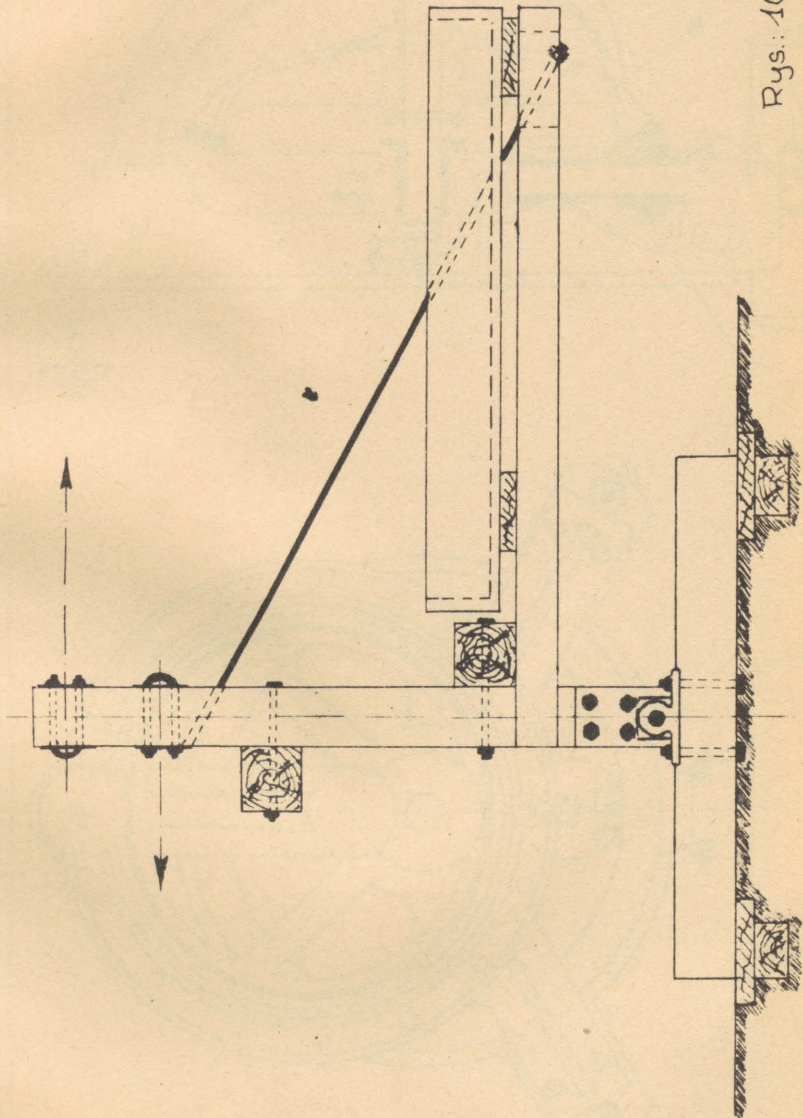
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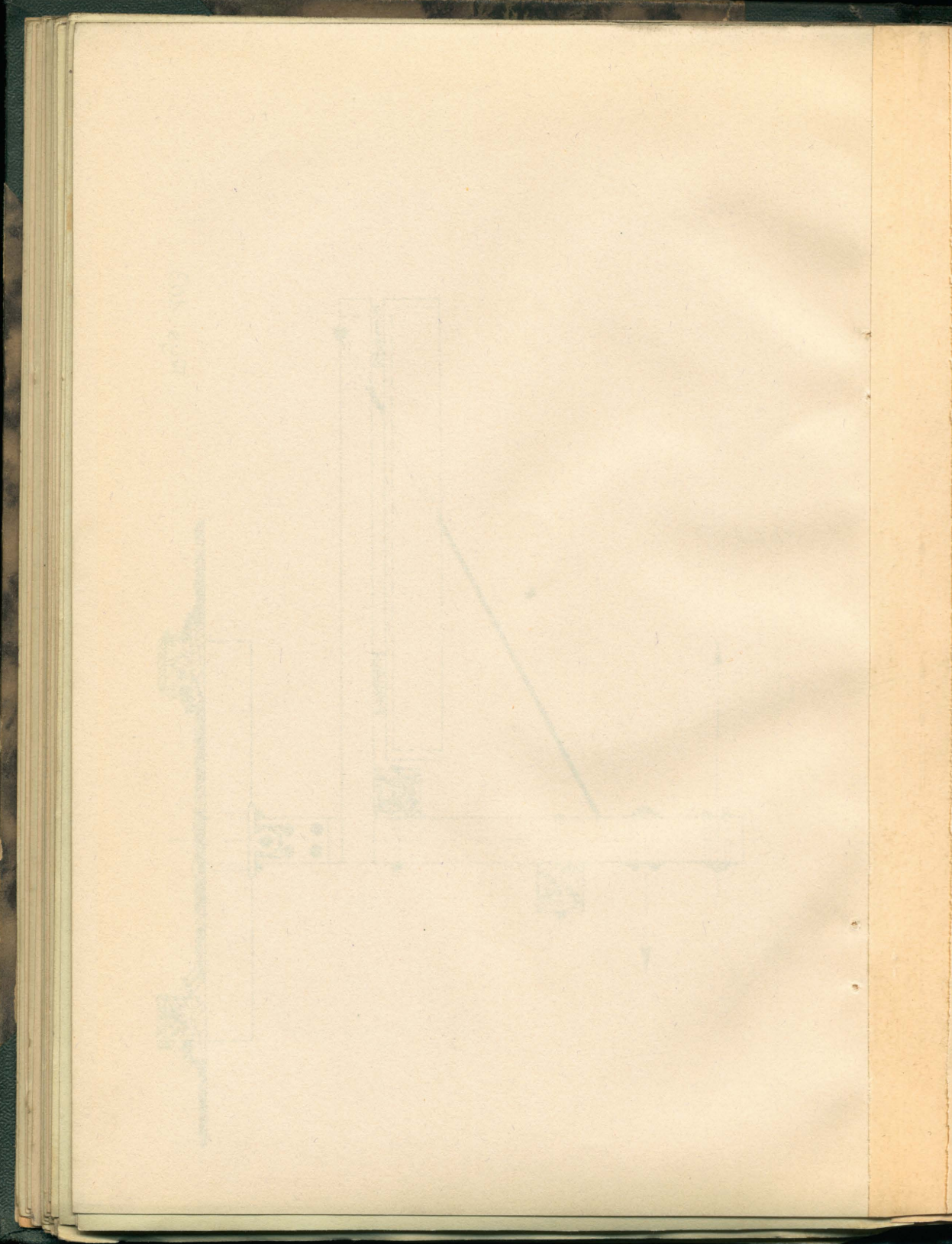


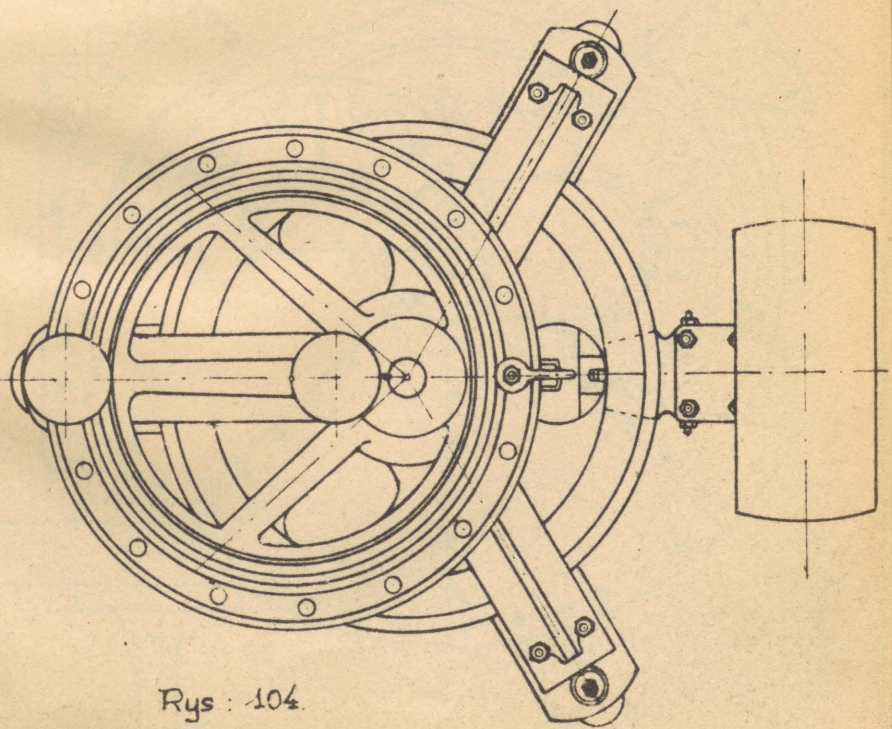
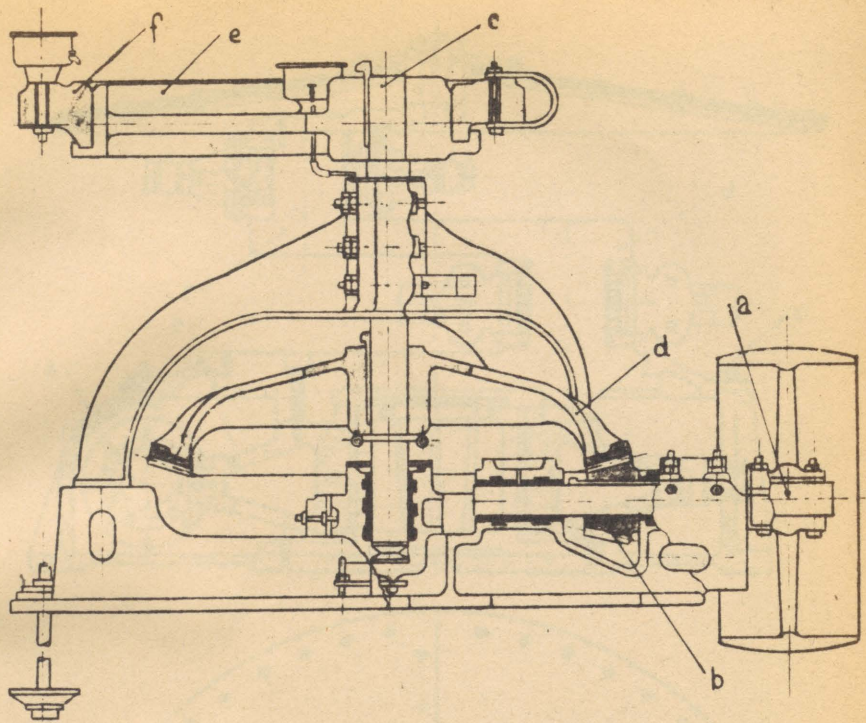
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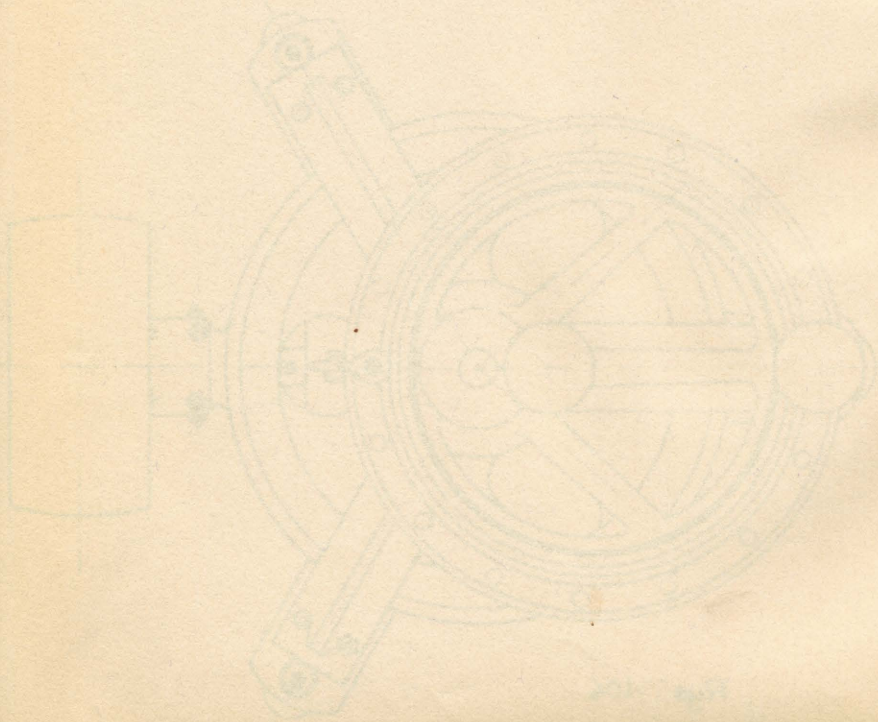
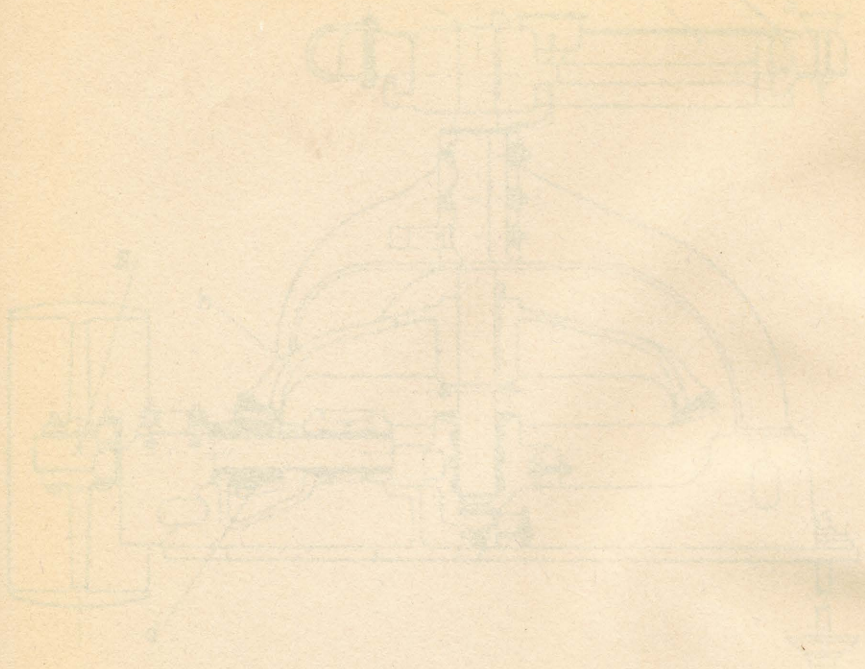


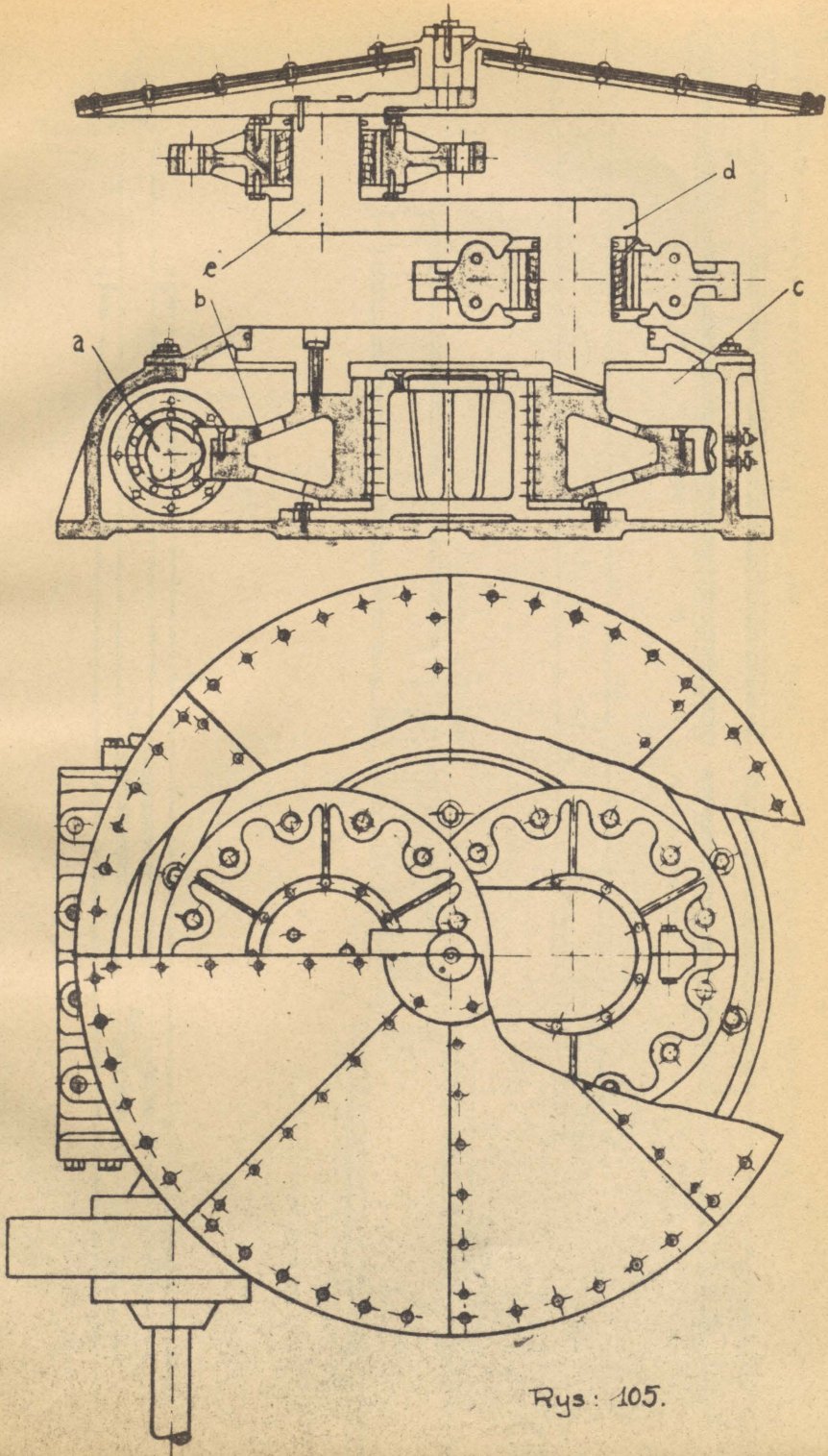
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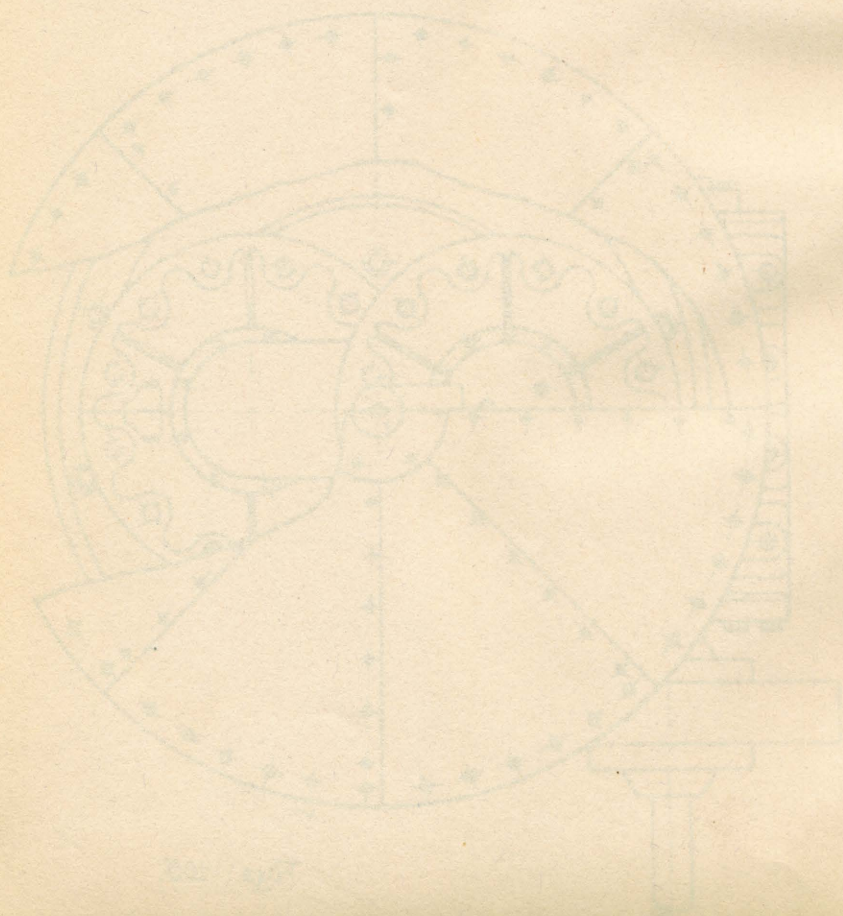
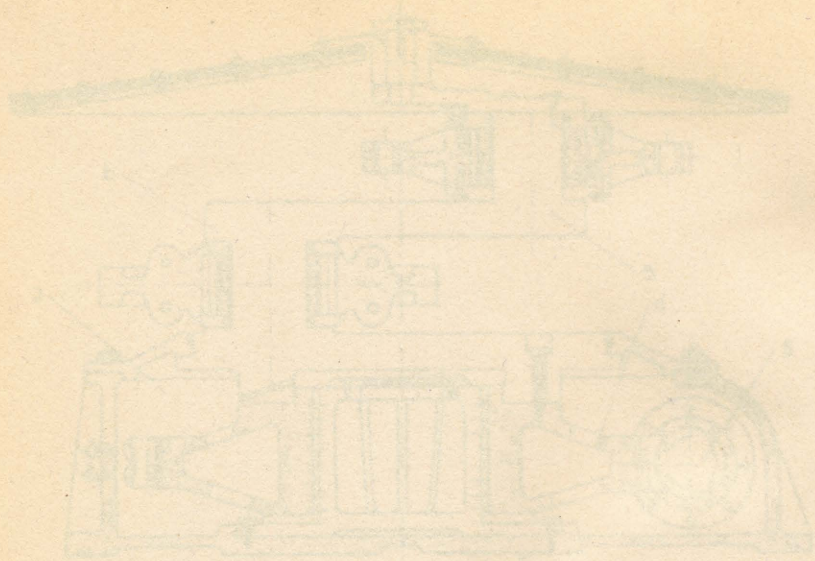


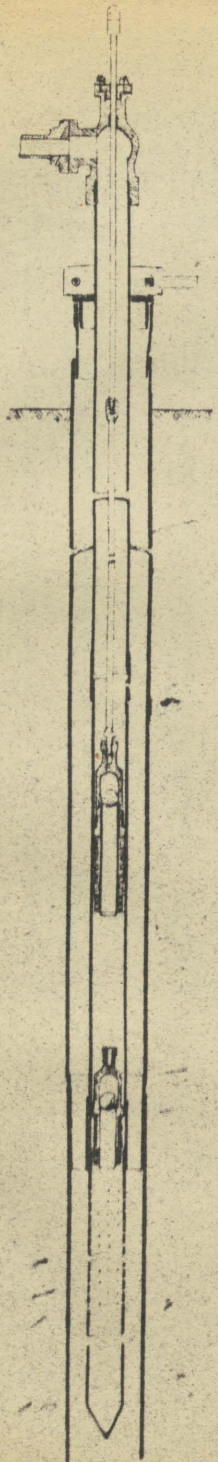
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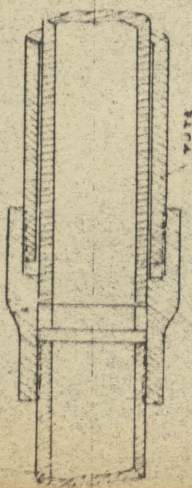
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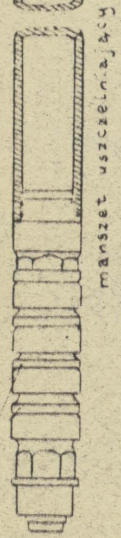
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redukcja dolna



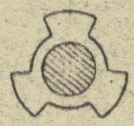
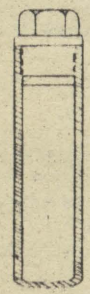
TYTA

uszczelnienie

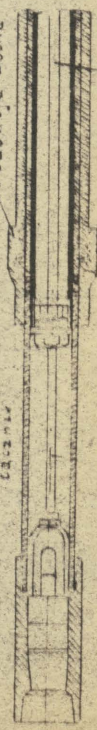


manszet uszczelniający

nut

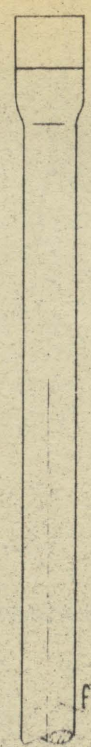


redukcja górna

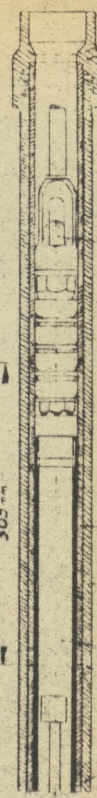


preł sagnący wentyl stopowy

o p



305 mm



kapliczka wentyla

o p

TYTA

nut

o p

o p

o p

o p

o p

o p

o p

o p

o p

o p

o p

o p

o p

o p

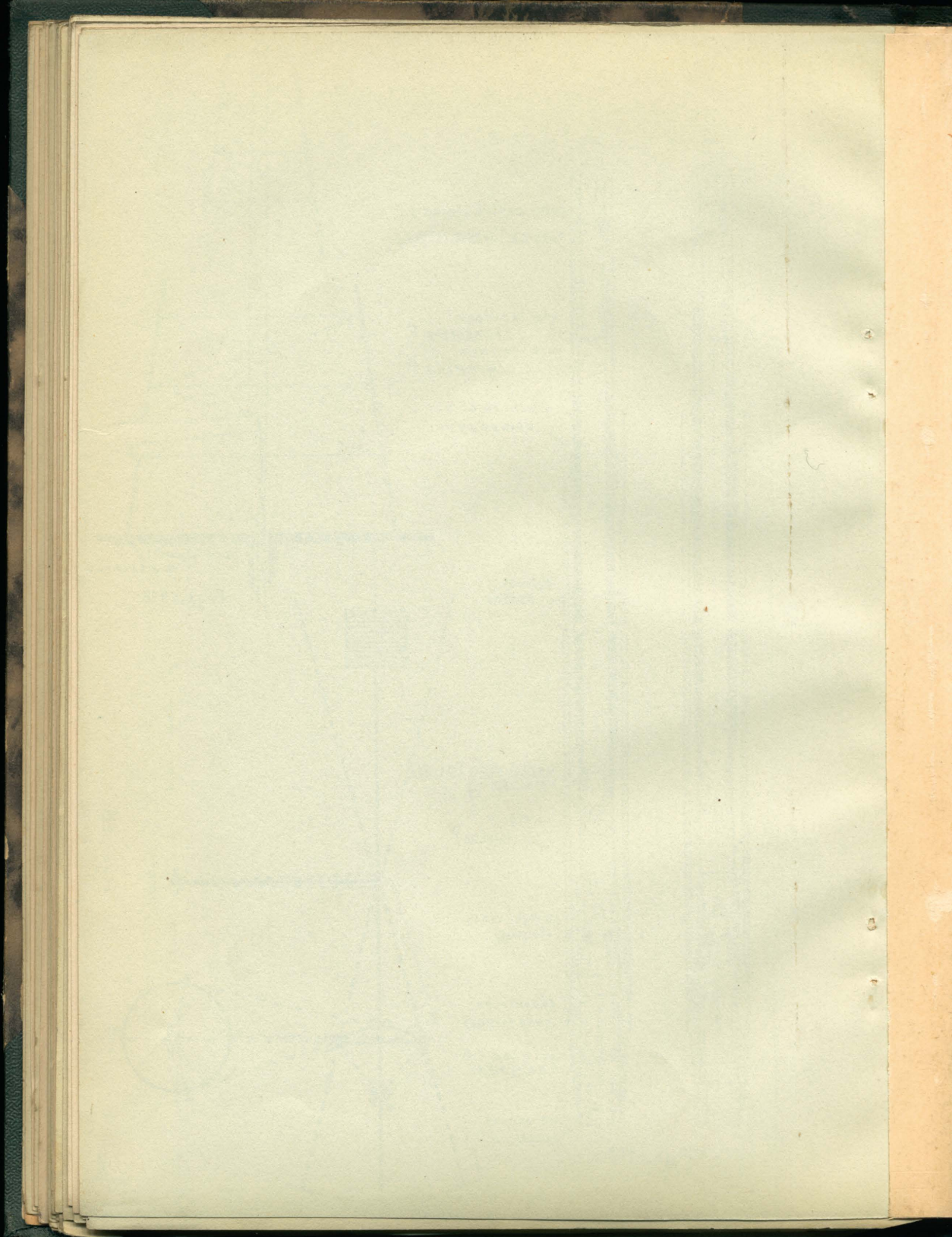
o p

o p

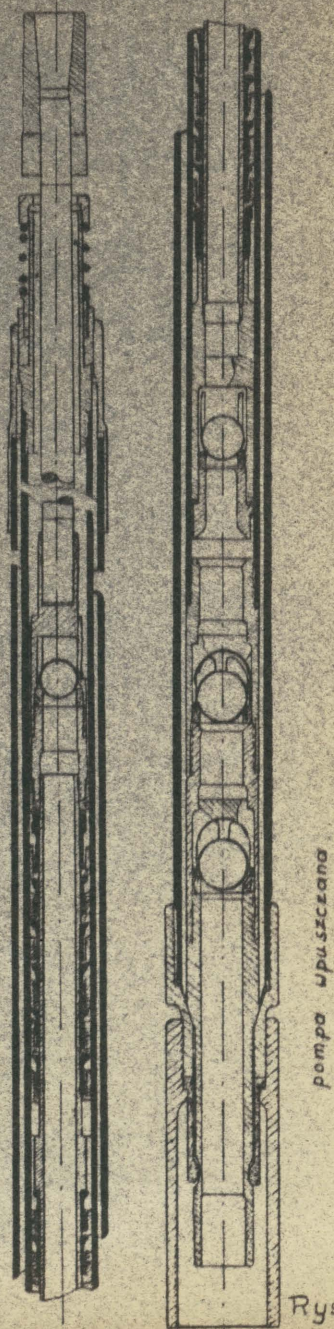
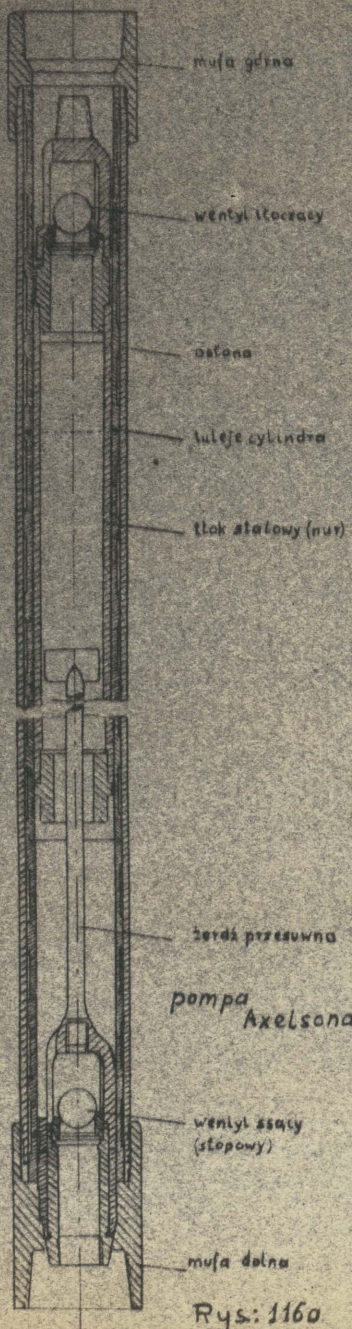
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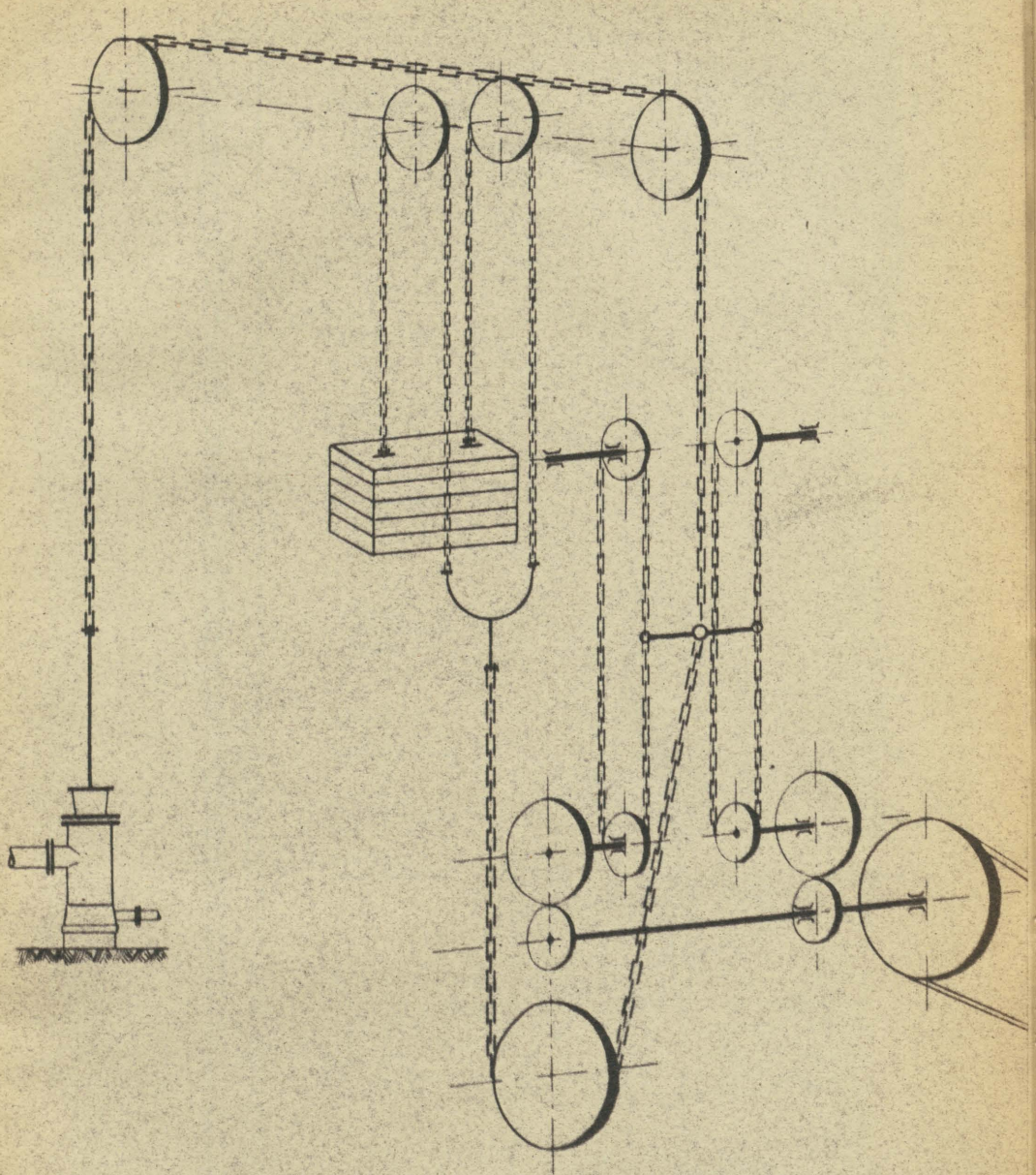
o p

Rys. 113



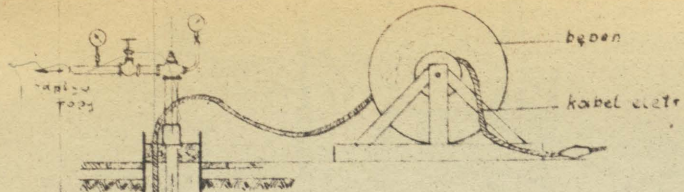
Rys. 116



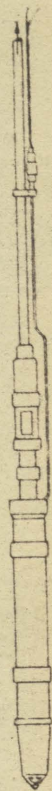
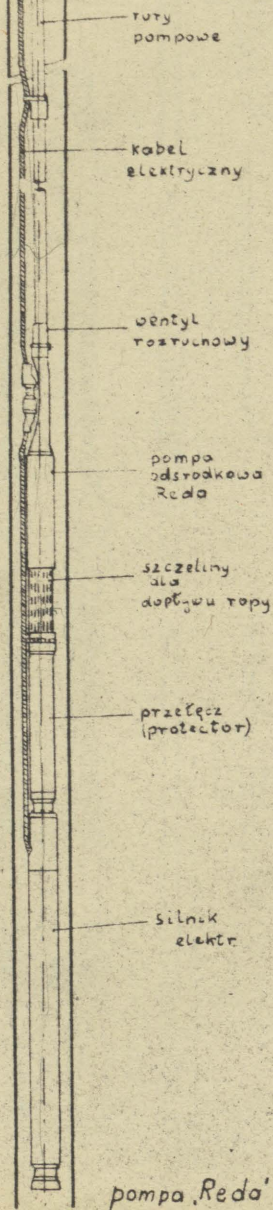


Rys. 120

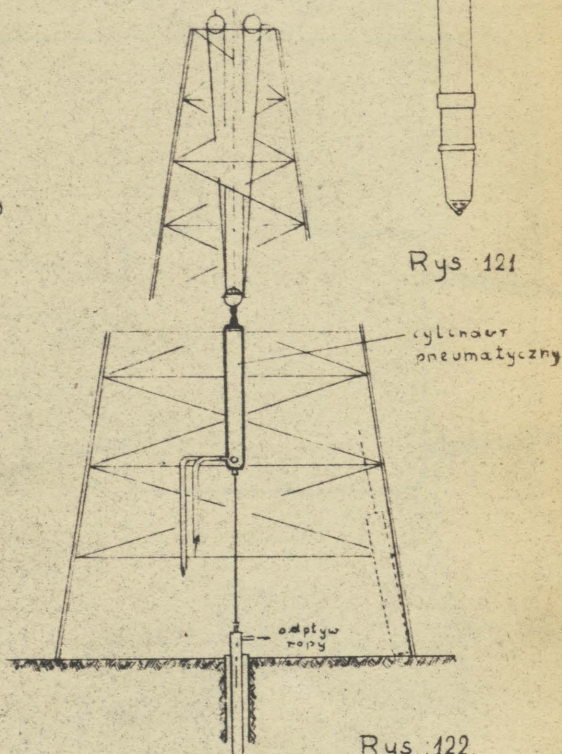
2 = $\frac{604}{27}$ - $\frac{600}{27} = 360$



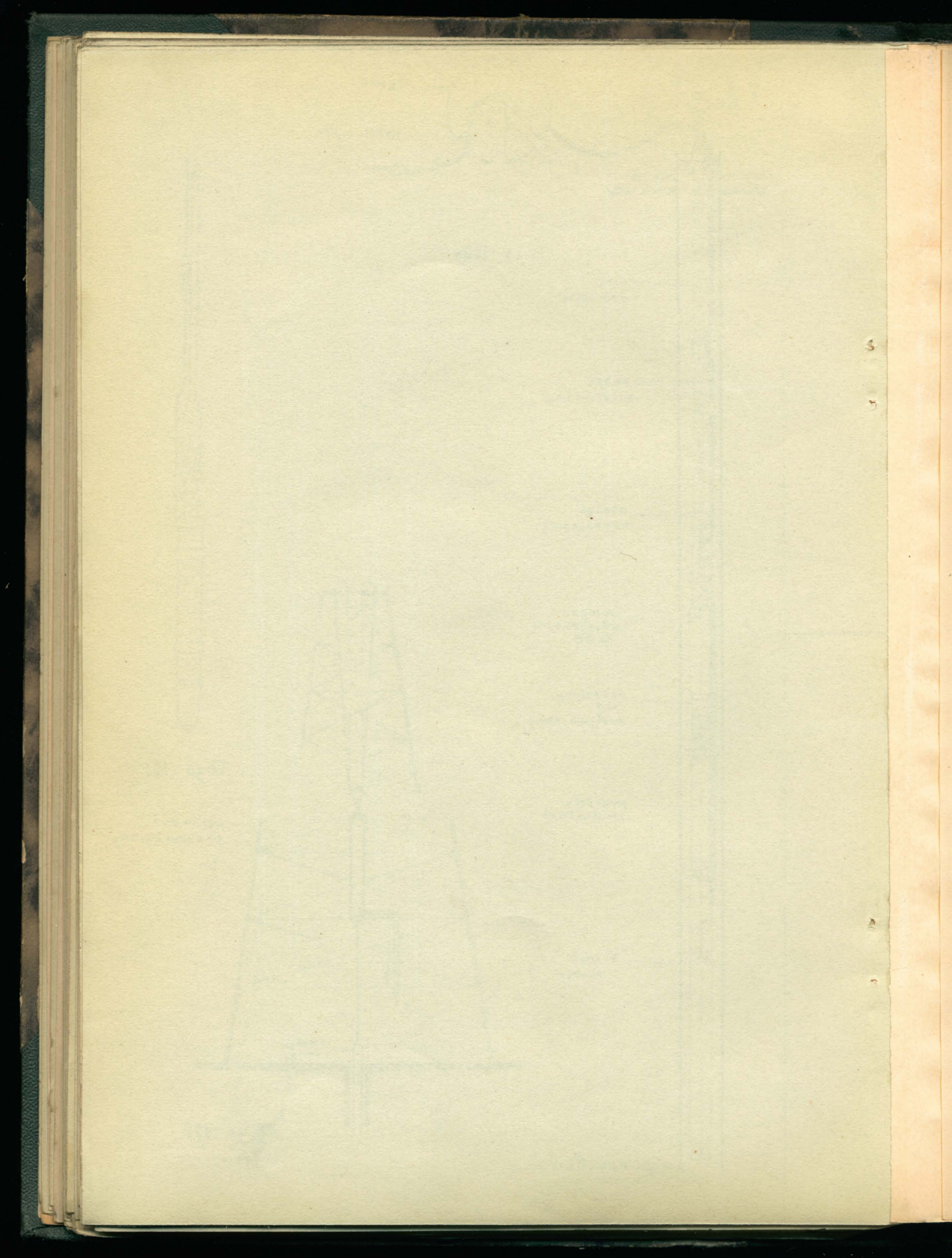
Rys 120a

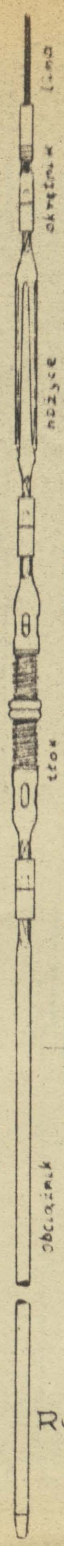
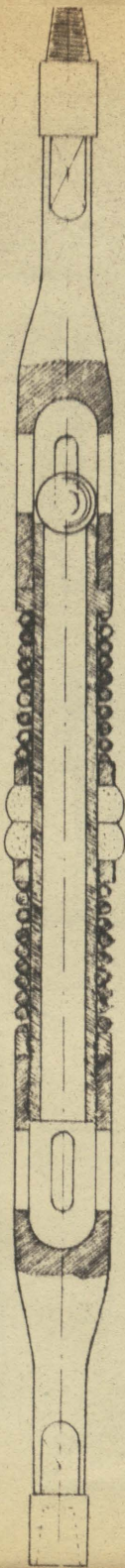


Rys 121

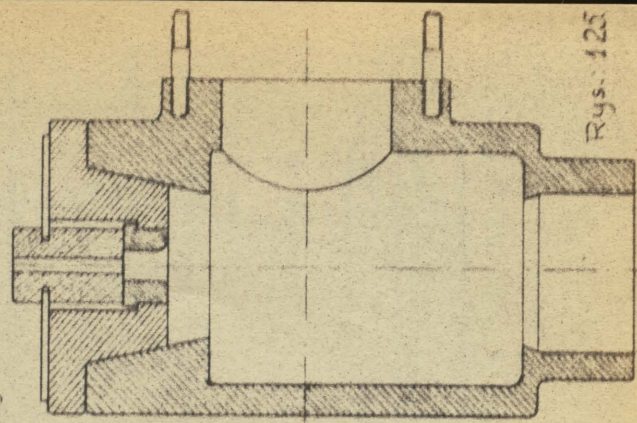


Rys 122

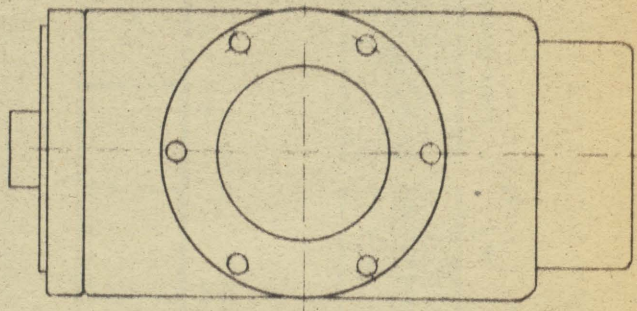




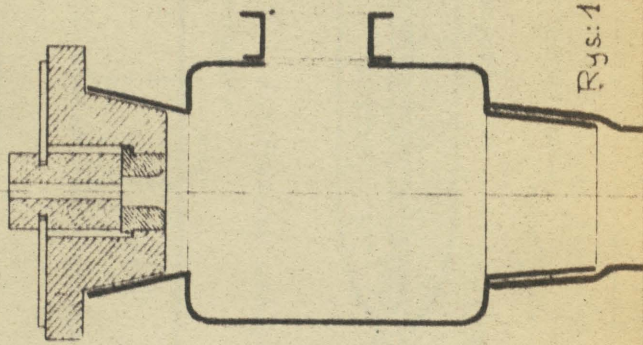
Rys. 123



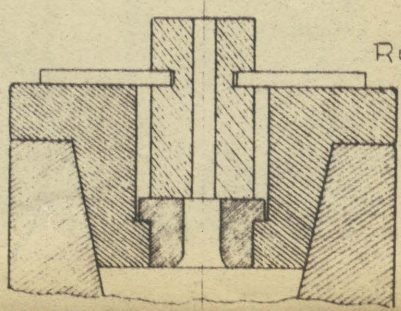
Rys. 125



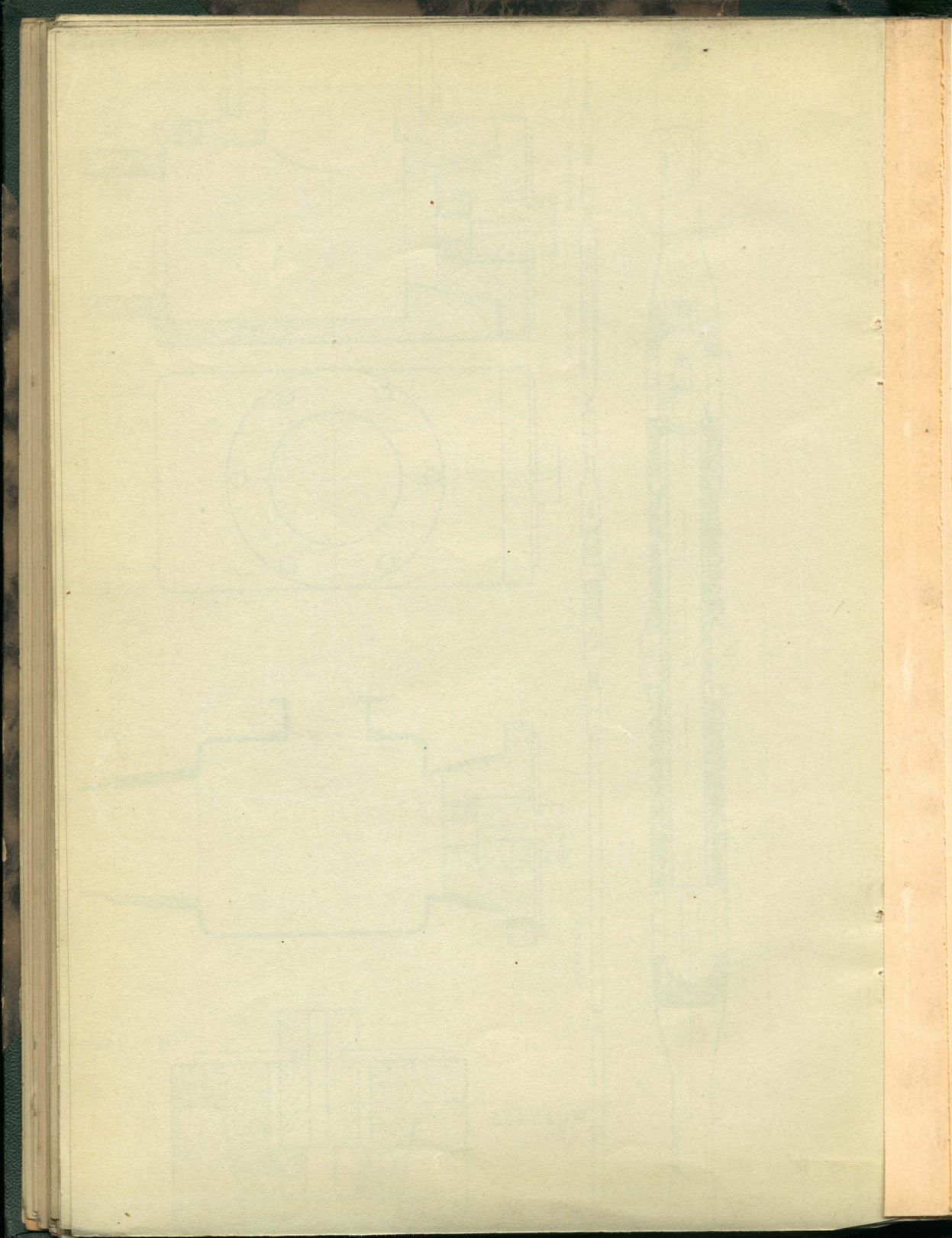
Rys. 126

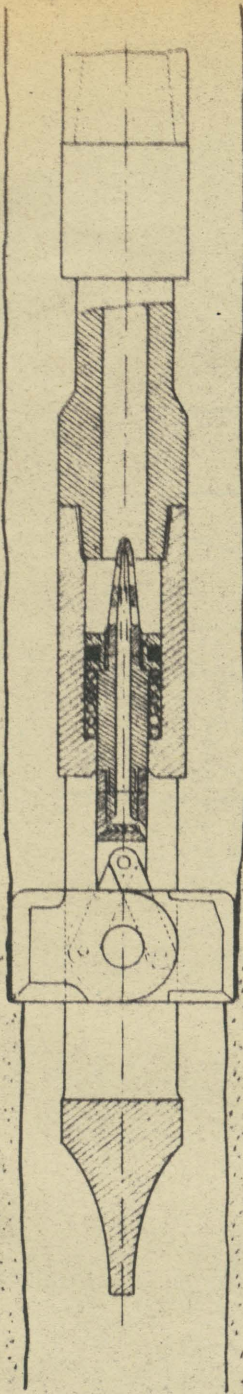


Rys. 127

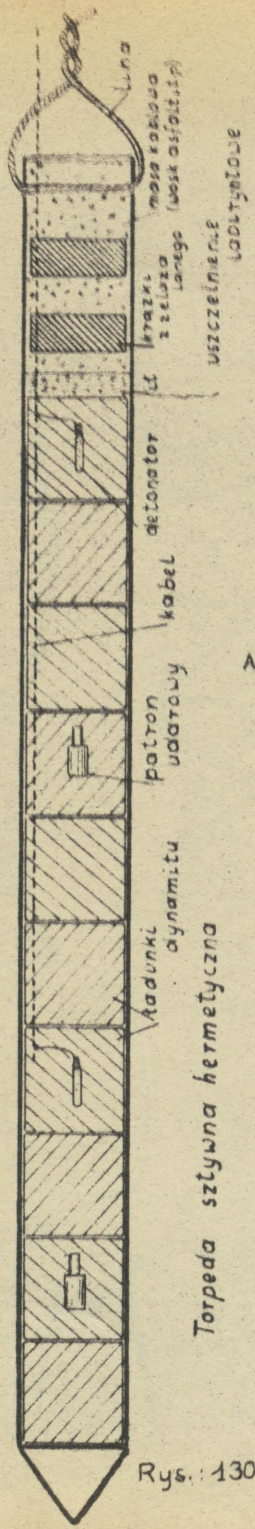


Rys. 123

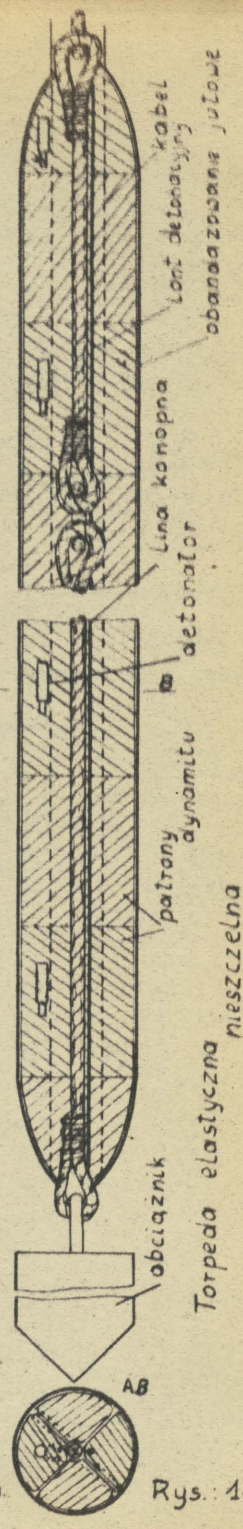




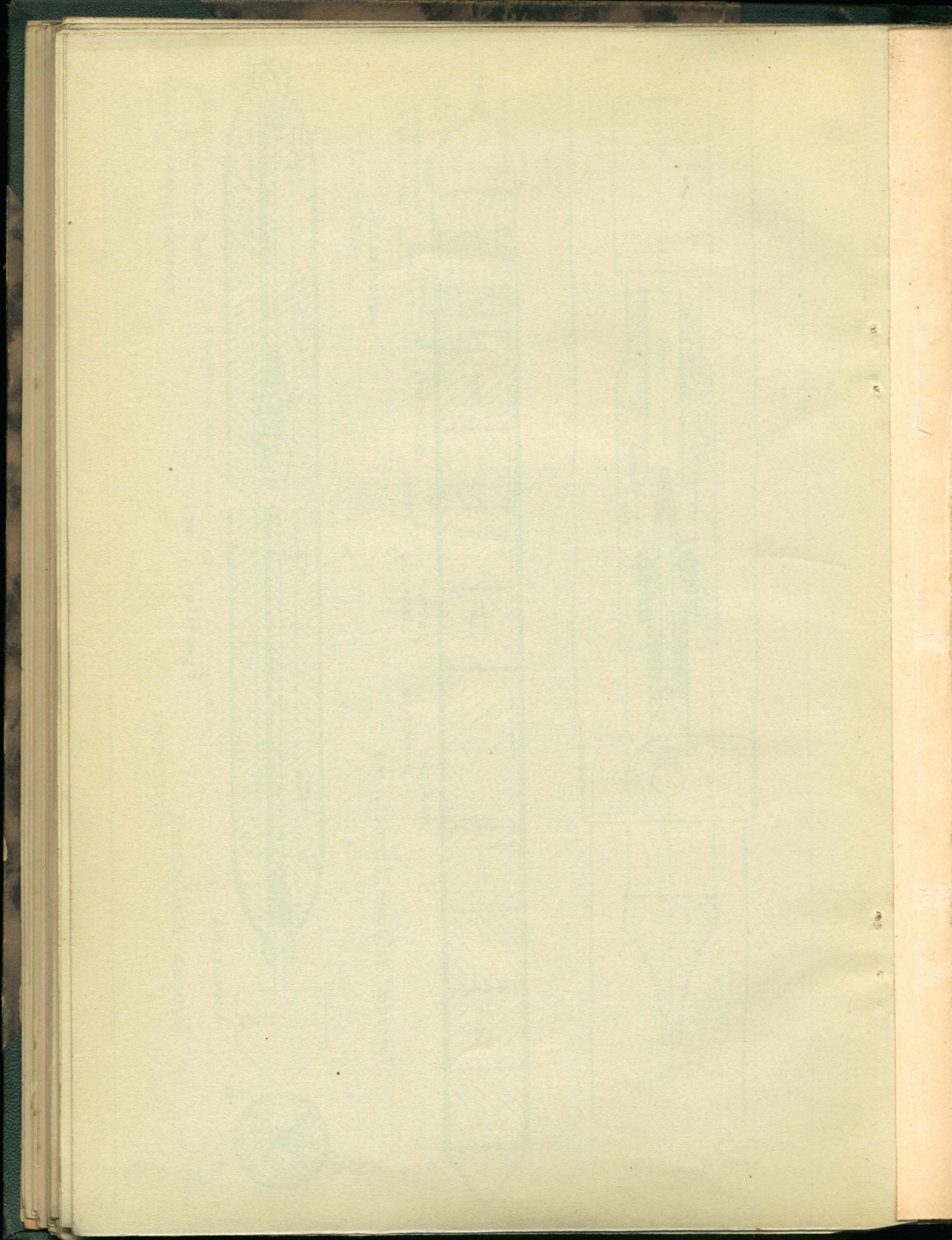
Rys.: 130.

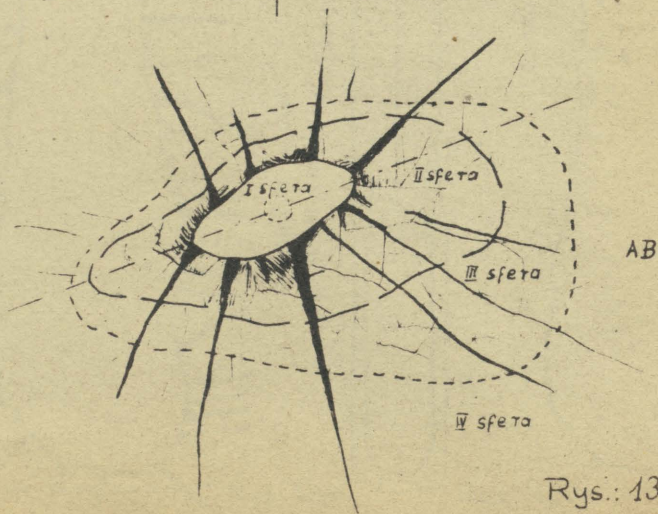
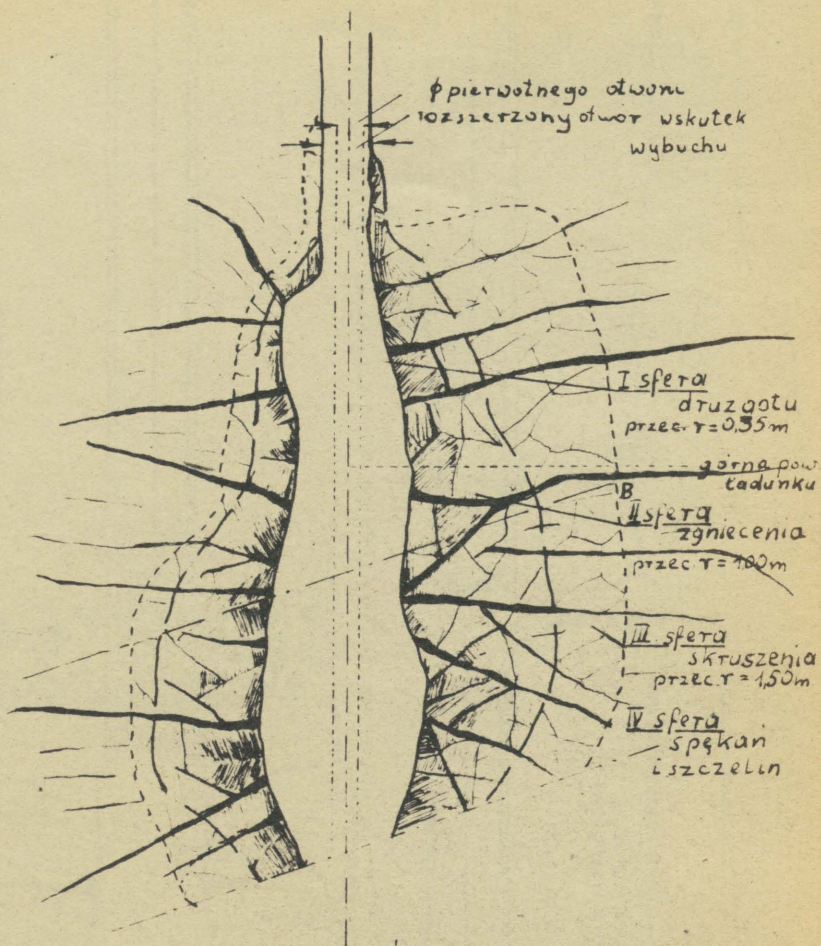


Rys.: 130a.

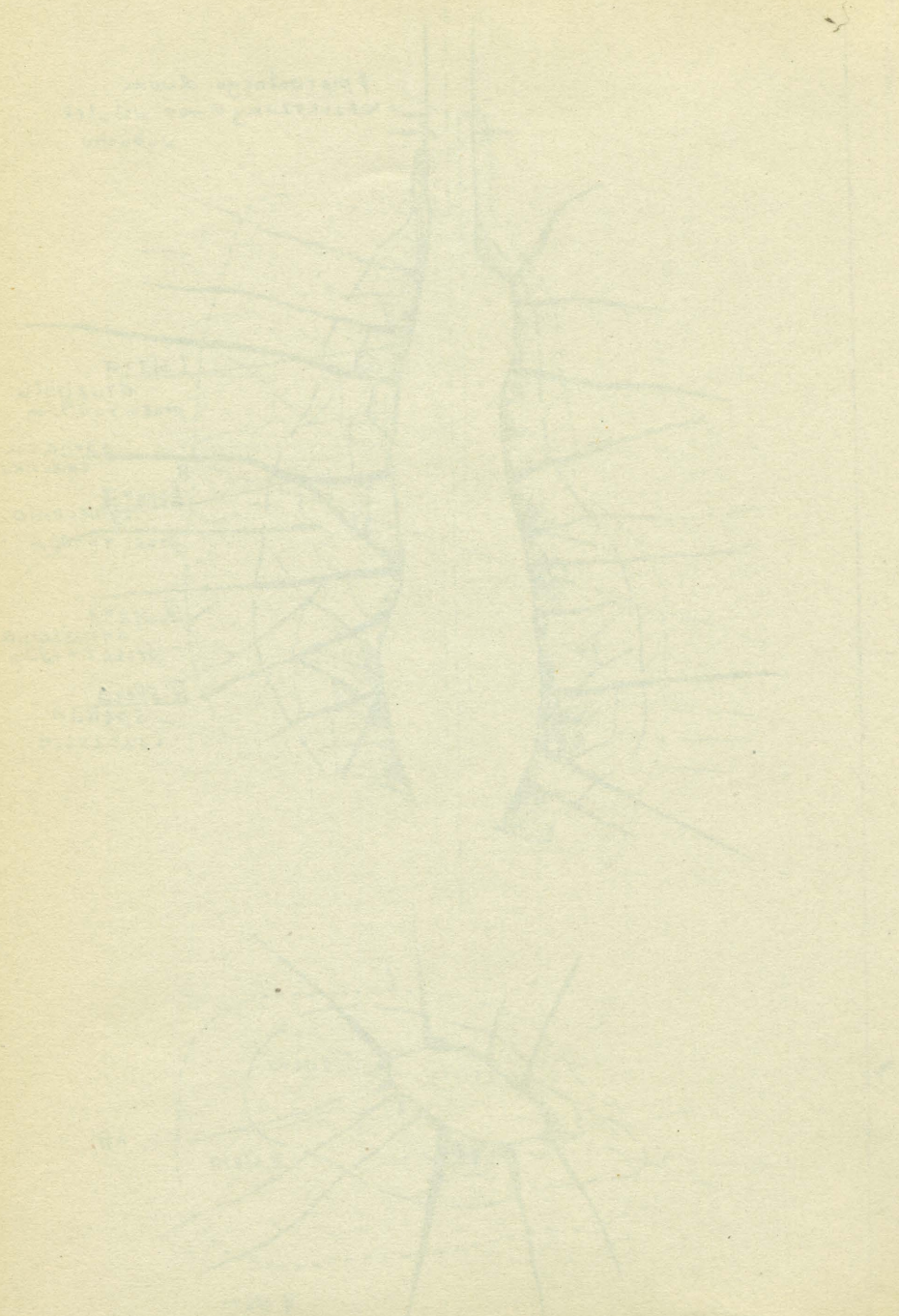


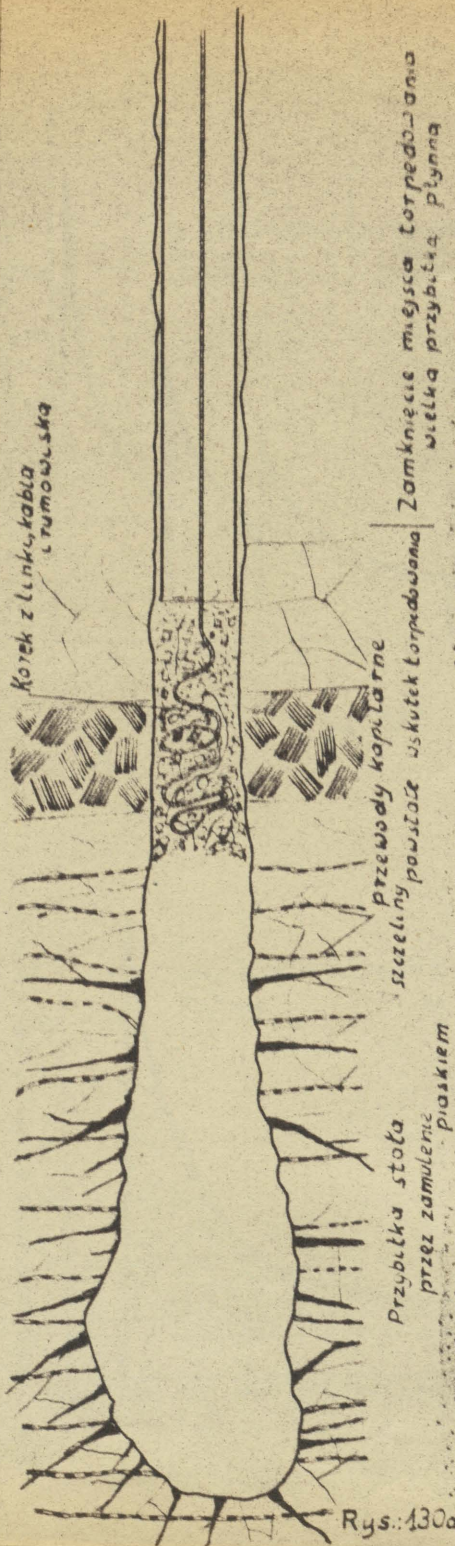
Rys.: 130b.



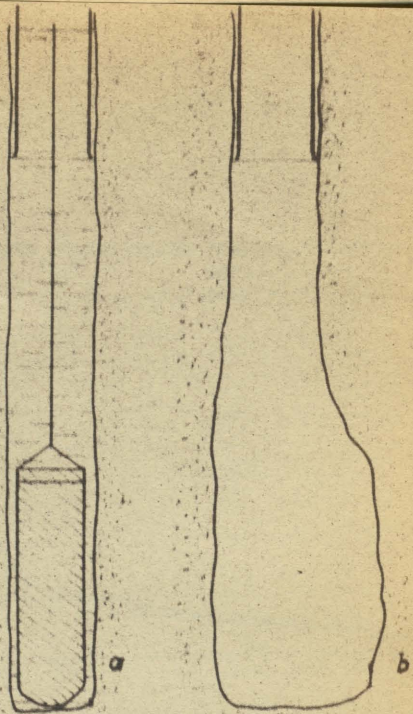


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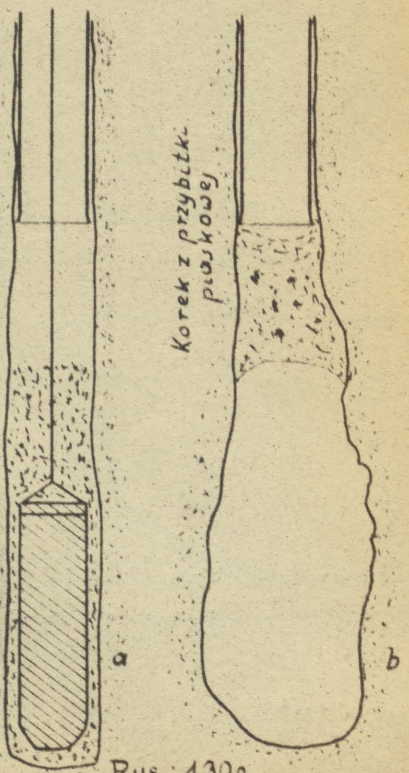




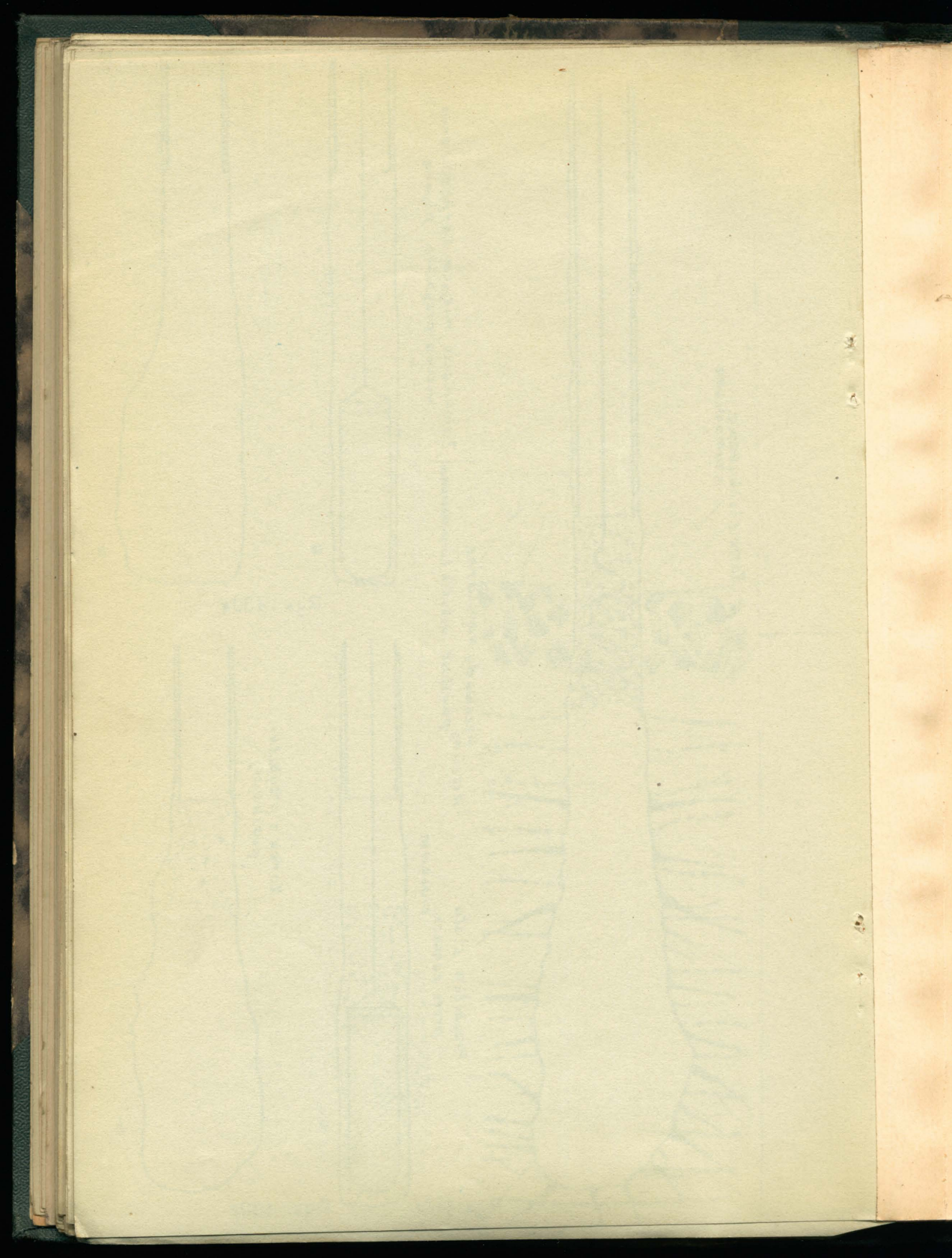
Rys. 130d.

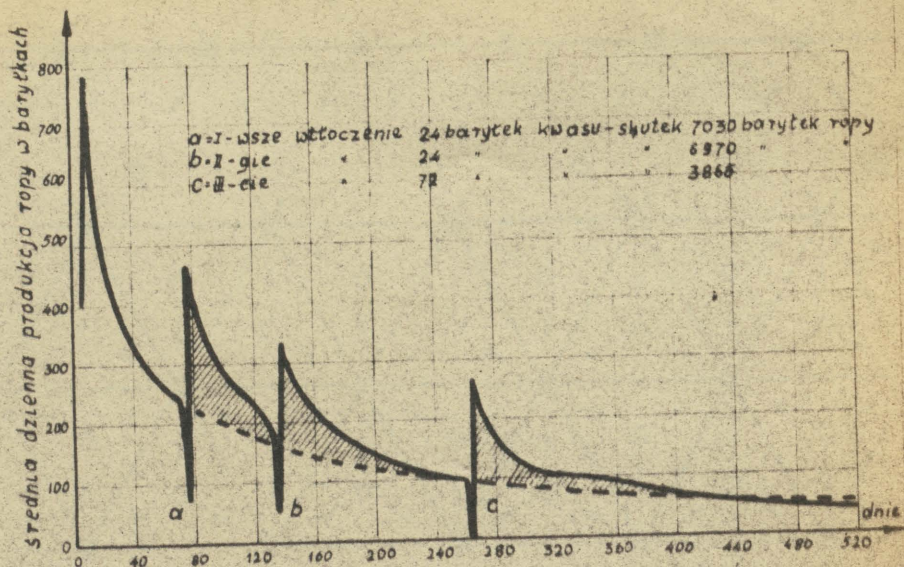


Rys. 130e.

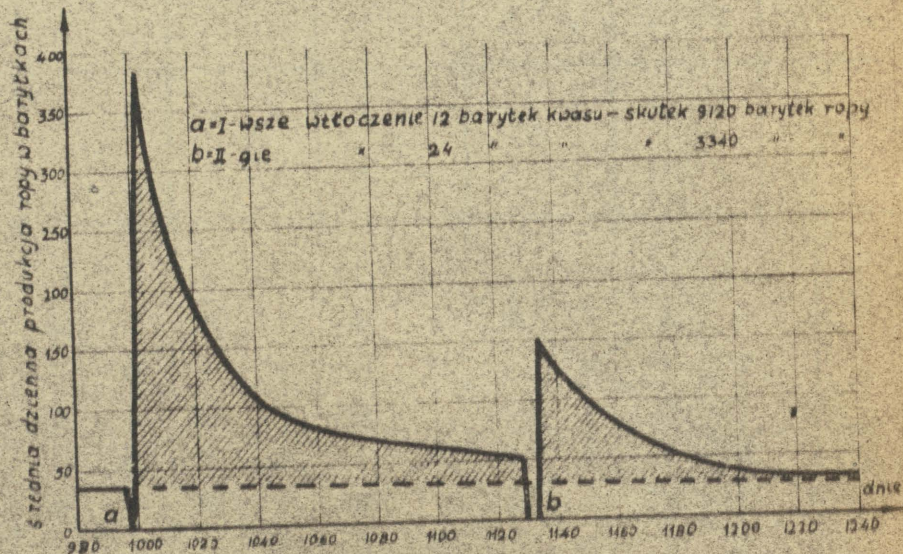


Rys. 130f.

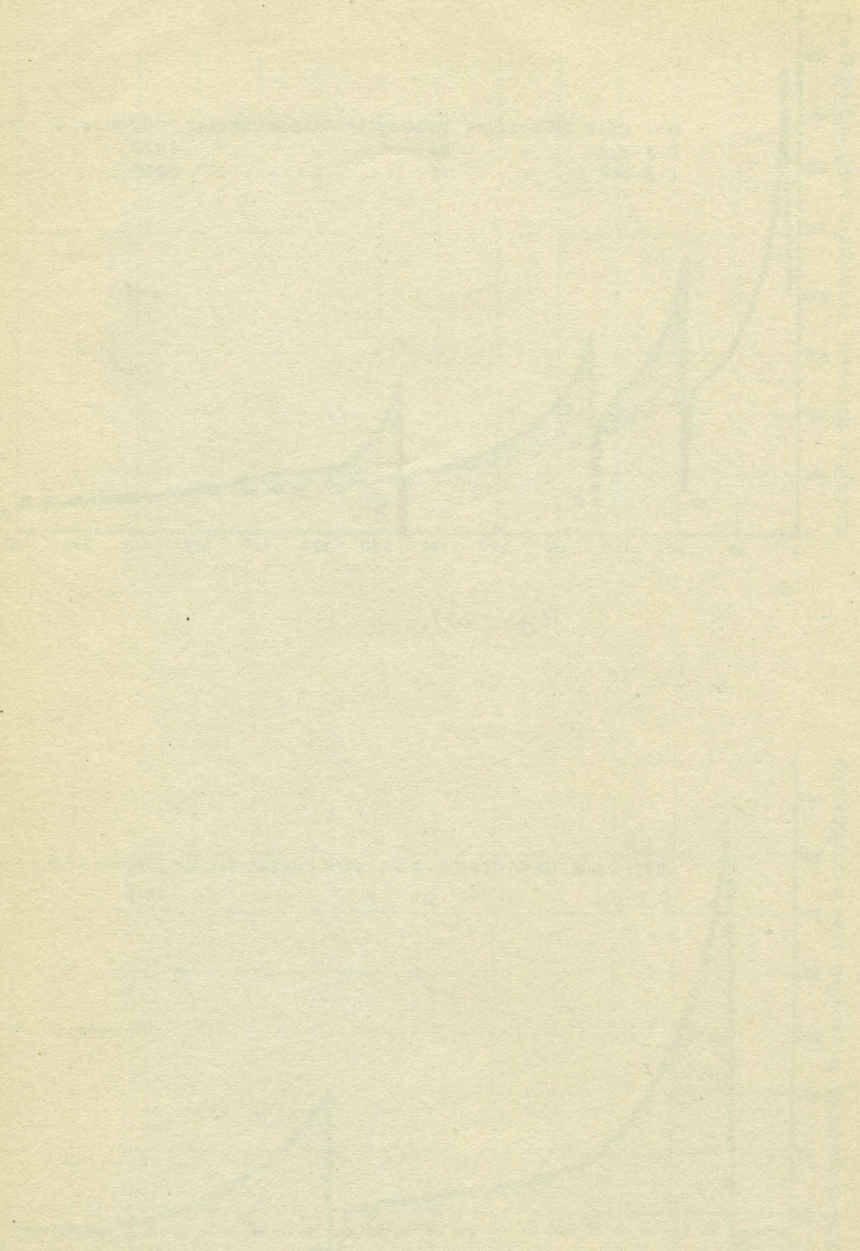


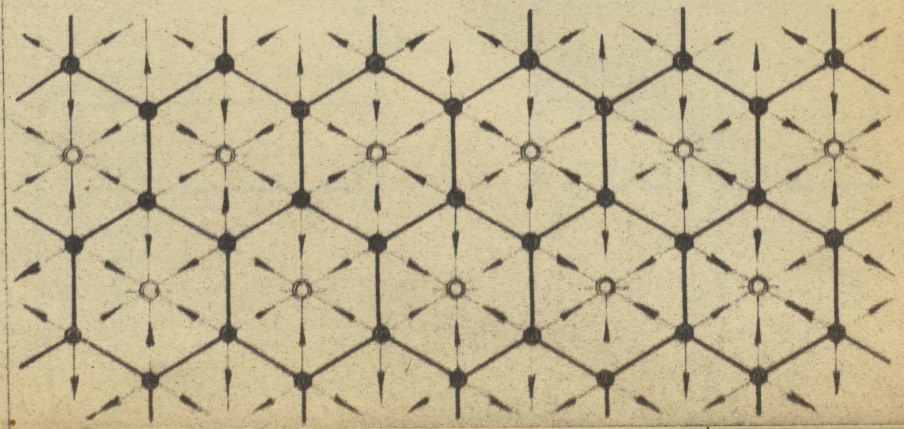
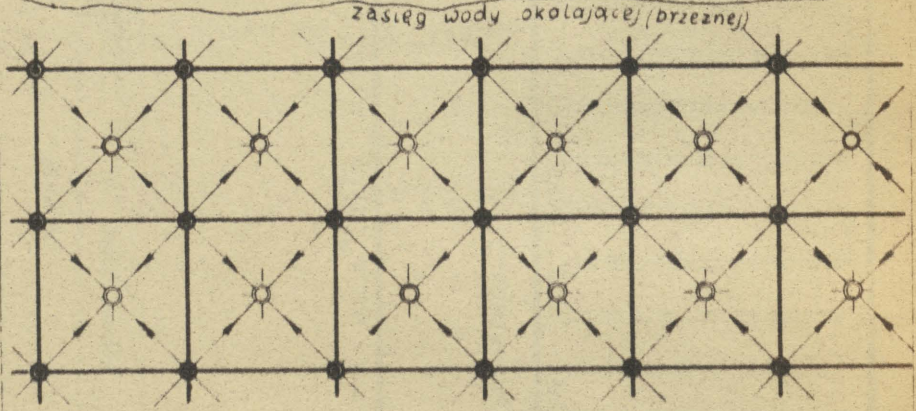
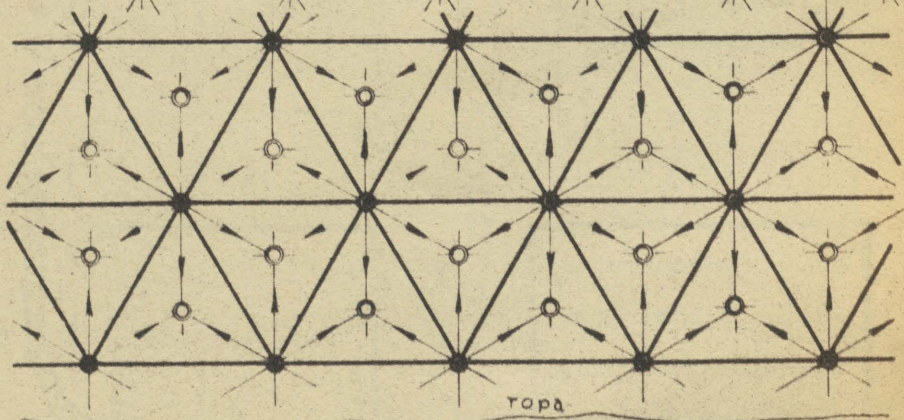
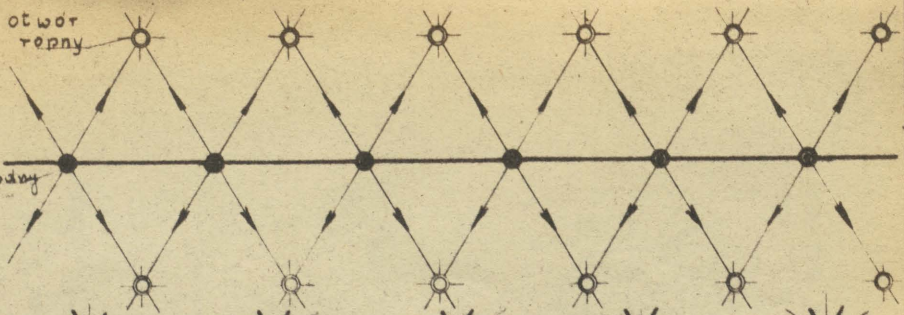


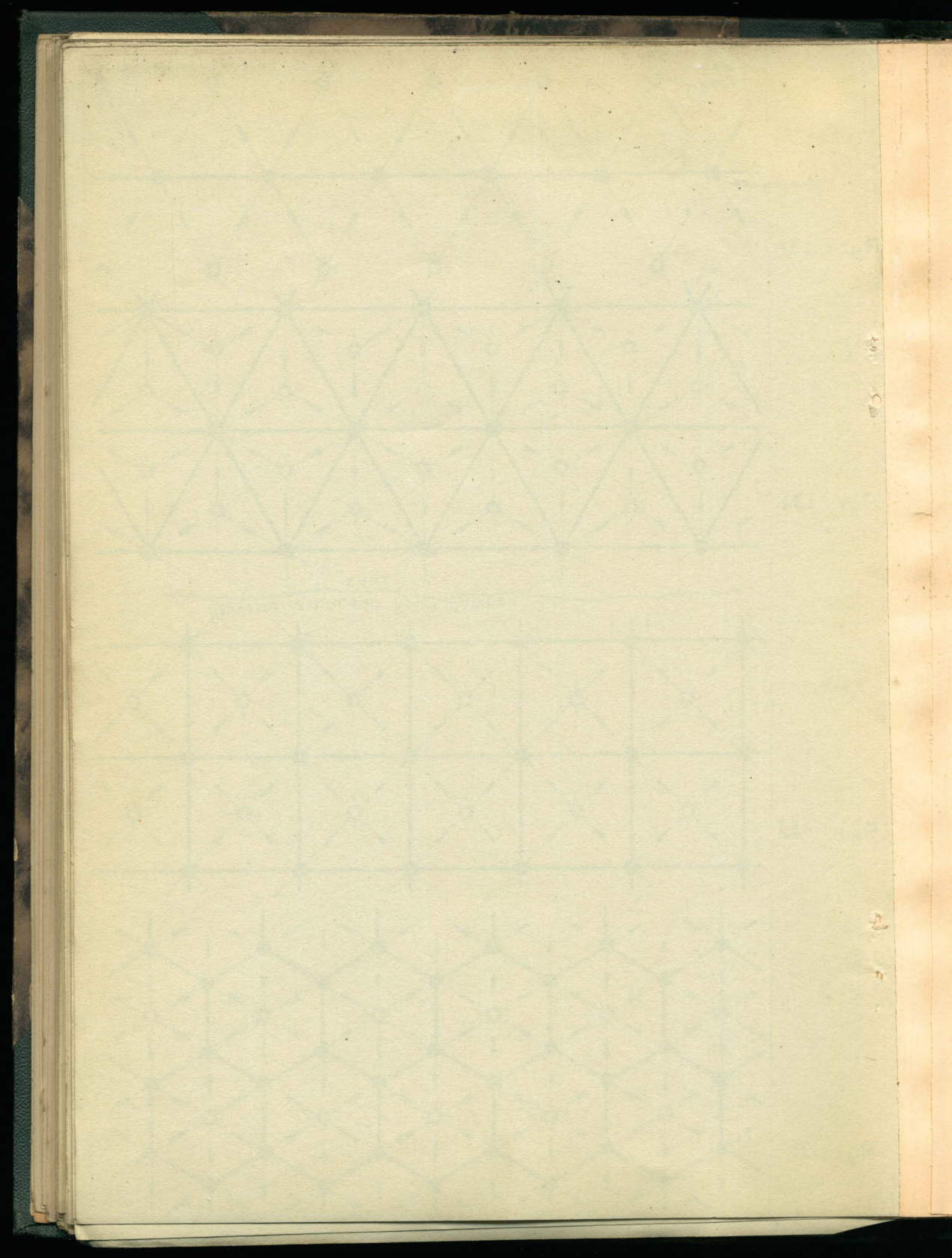
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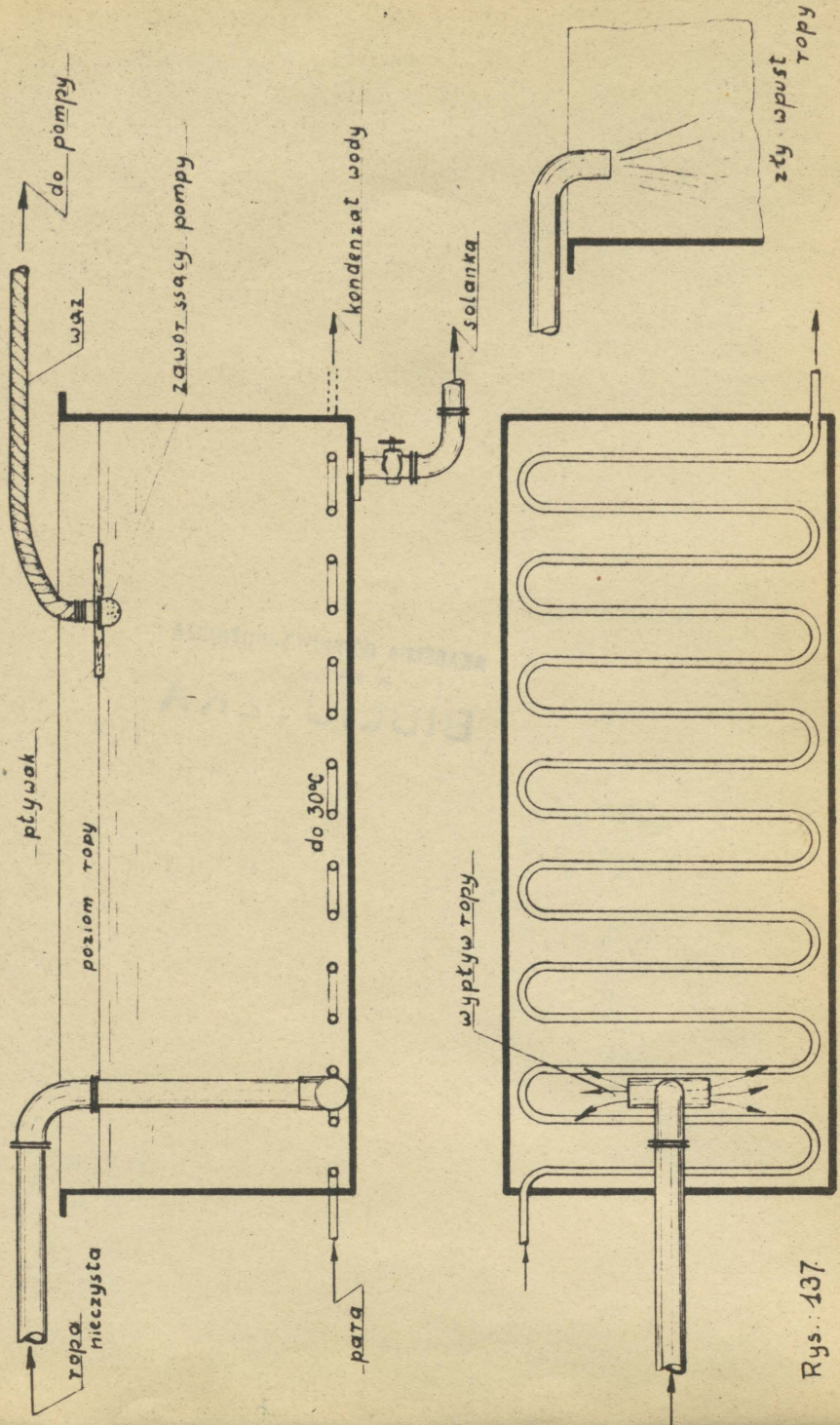
Rys. 132







czyszczenie emulsji sposob inz Peritza



Rys. 137

AKADEMIA GÓRNICZO-HUTNICZA
W KRAKOWIE
BIBLIOTEKA

