Dono
De Pietri-Tonelli

ALFONSO de PIETRI-TONELLI
della R. Scuola Superiore di Commercio di Venezia
e della R. Università di Padova

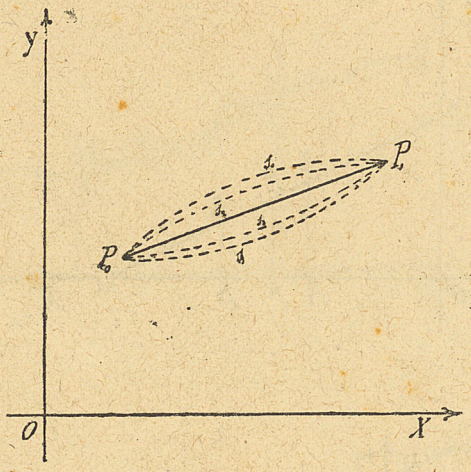
Lezioni di Scienza economica razionale e sperimentale

IIª Edizione, con Prefazione di
VILFREDO PARETO
dell'Università di Losanna

DIAGRAMMI

ROVIGO
INDUSTRIE GRAFICHE ITALIANE - SEDE IN FERRARA
STABILIMENTI :
BELLUNO - BOLOGNA - FERRARA - PADOVA - ROVIGO
MCMXXI

Dono di
Da Piehn-Tonelli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P
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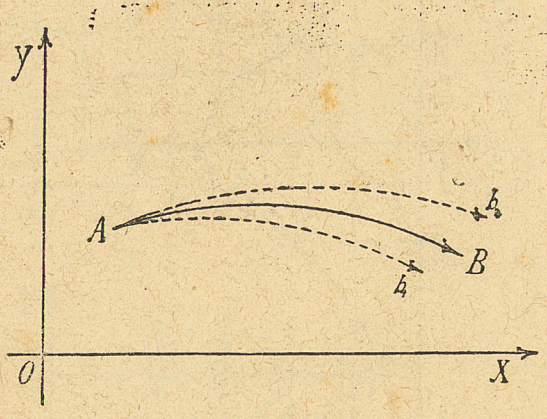
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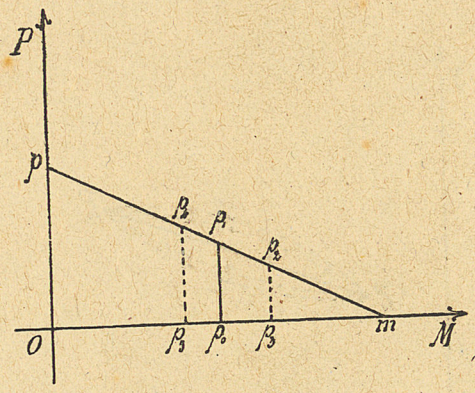
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B₁
B₂
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B₁
B₂
B₃
m
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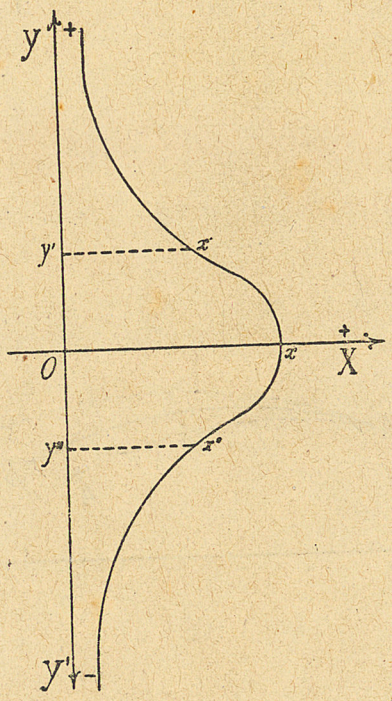
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+
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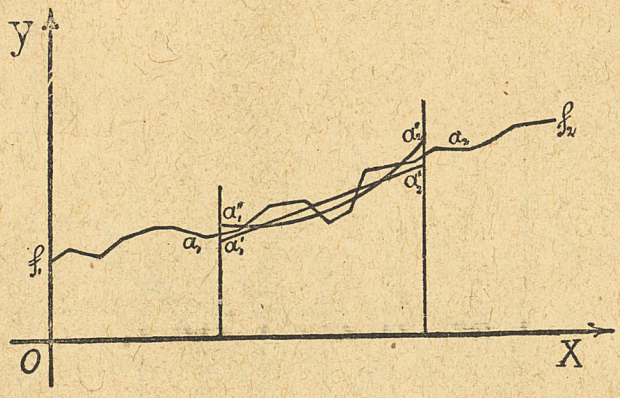
x'
O
x
+
X
y''
x''
y'
-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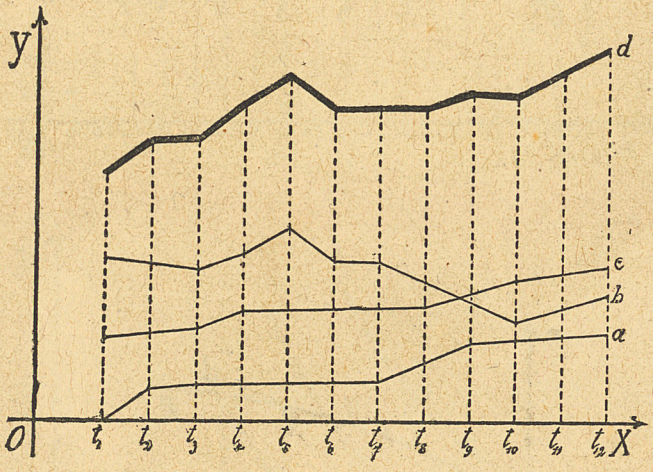
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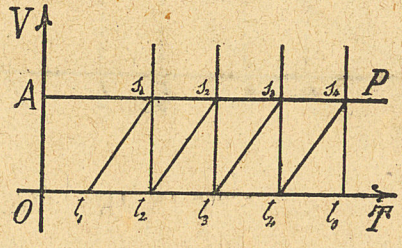
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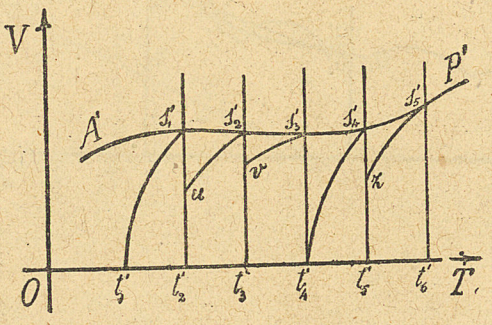
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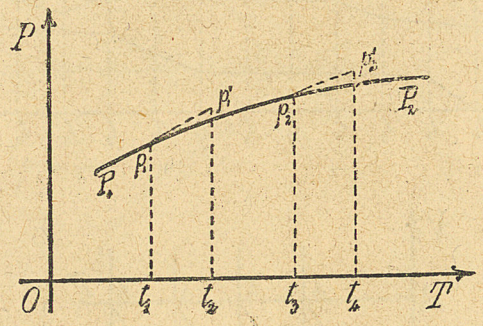
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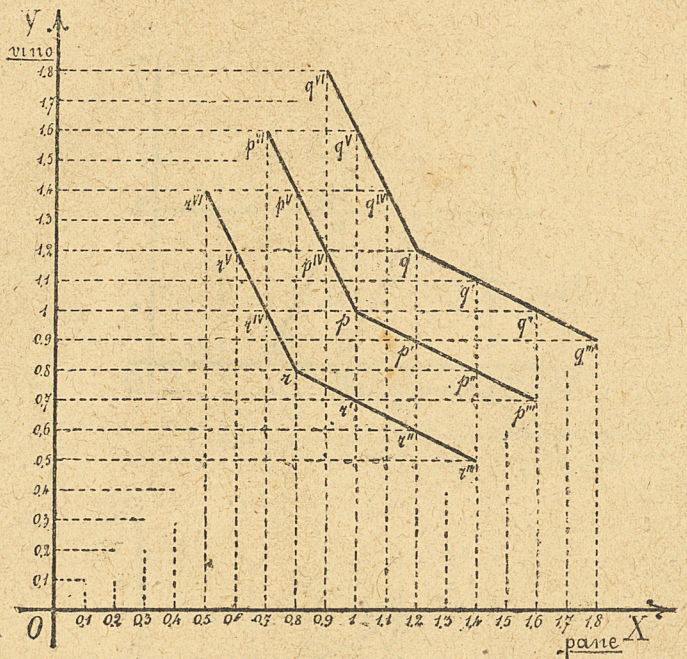
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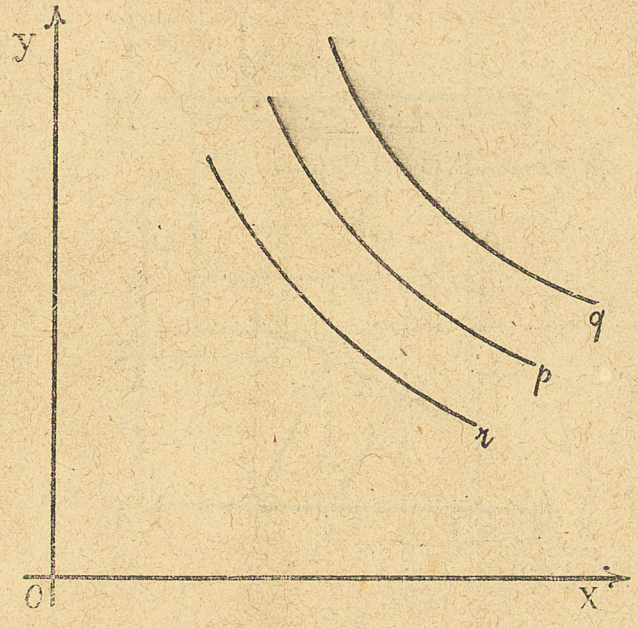
X
pane
q^{VI}
q^{V}
q^{IV}
q'''
q''
q'
q
p^{VI}
p^{V}
p^{IV}
p'''
p''
p'
p
r^{VI}
r^{V}
r^{IV}
r'''
r''
r'
r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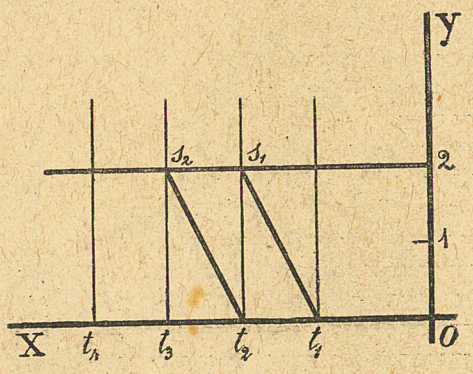
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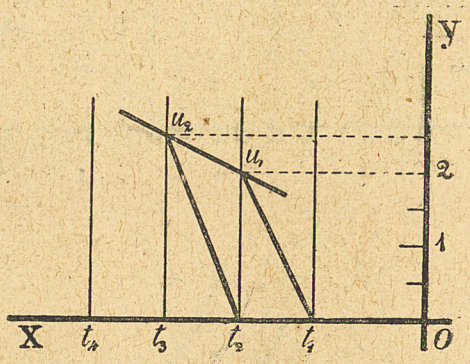
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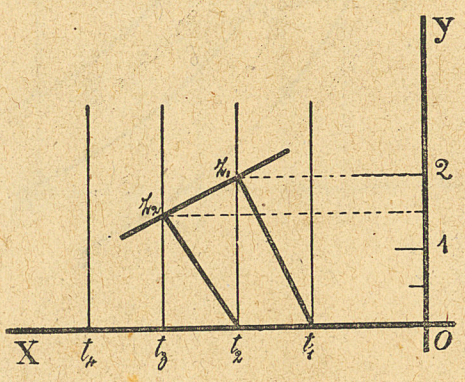
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t_4
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t_2
t_1
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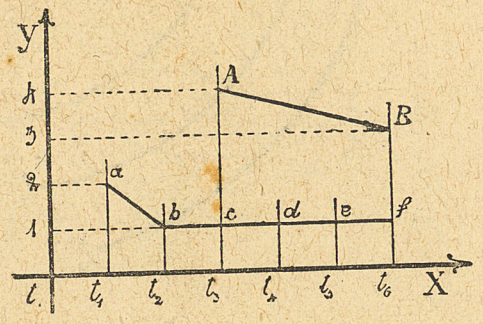
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B
a
b
c
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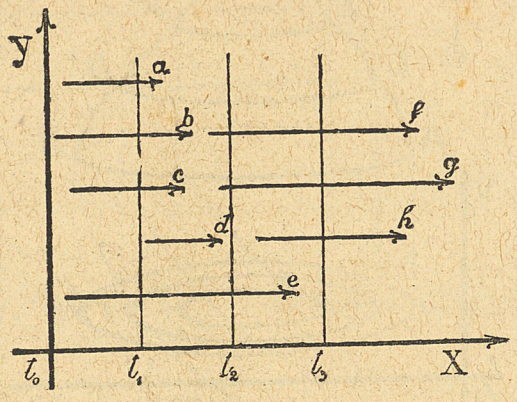
f
X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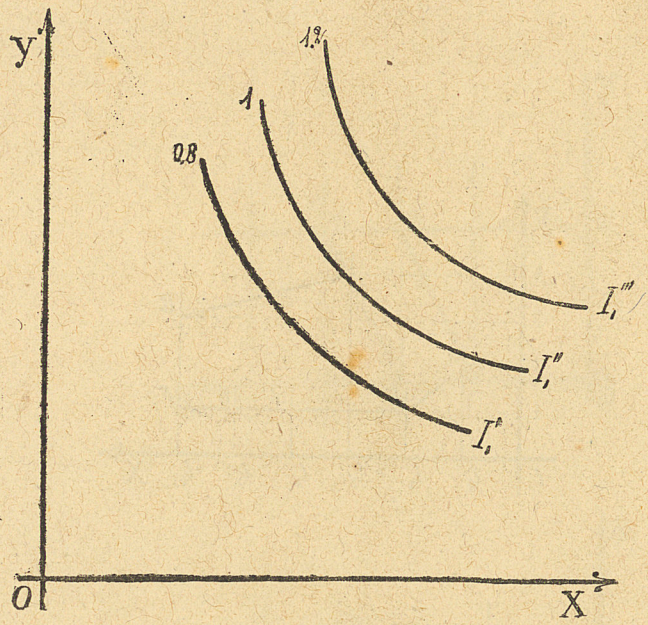
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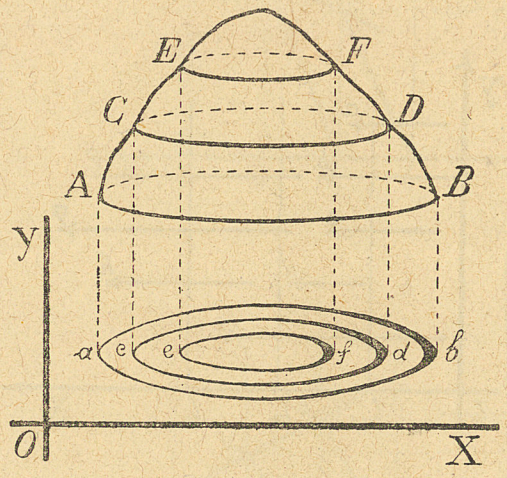
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F
C
D
A
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b
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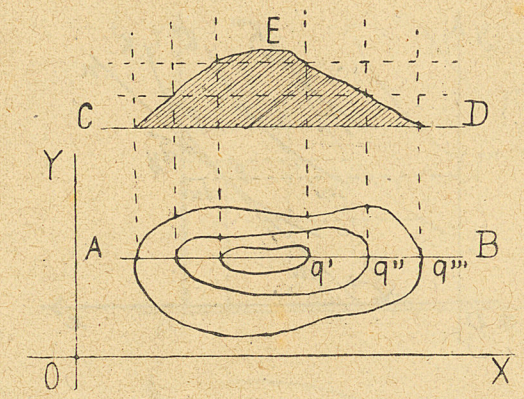
X

y
a'
e'
e'
f'
d'
b'
0
X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C
D
Y
A
B
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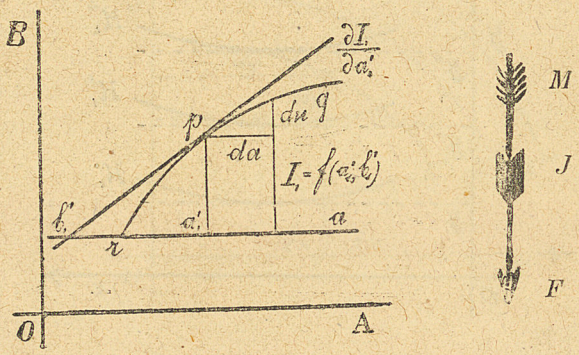
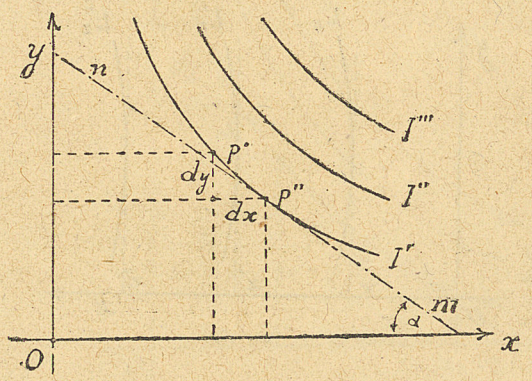
q''
q'''
0
X


B
$\frac{\partial I_i}{\partial a_i'}$
p
$du\,q$
da
$I_i = f(a_i' b_i')$
b_i'
a_i'
a
r
0
A
M
J
F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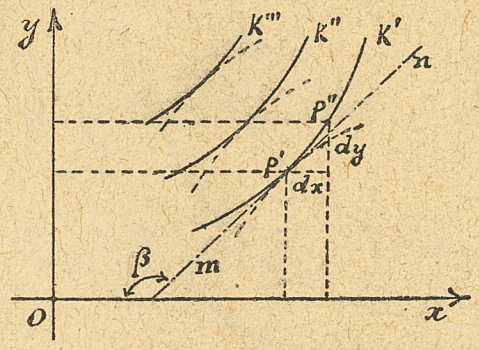
P'
dy
P''
dx
I'''
I''
I'
m
α
0
x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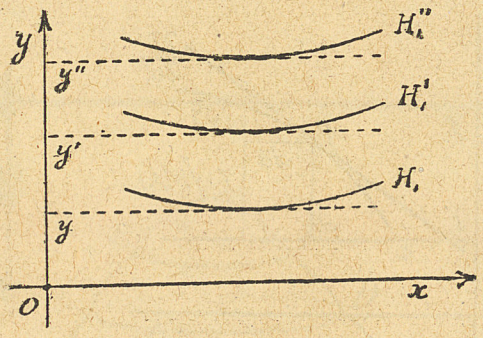
K''
K'
n
P''
dy
P'
dx
β
m
O
x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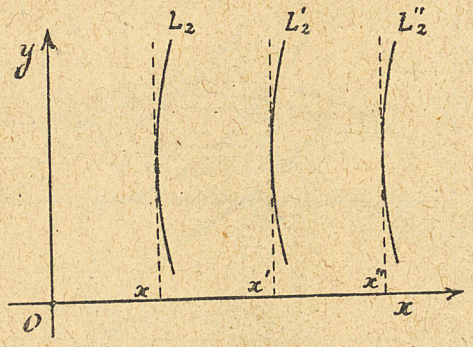
y''
H₁'
y'
H₁
y
O
x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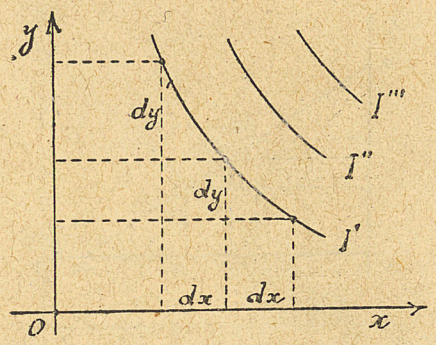
L₂'
L₂''
x
x'
x''
O
x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dy
I'''
I''
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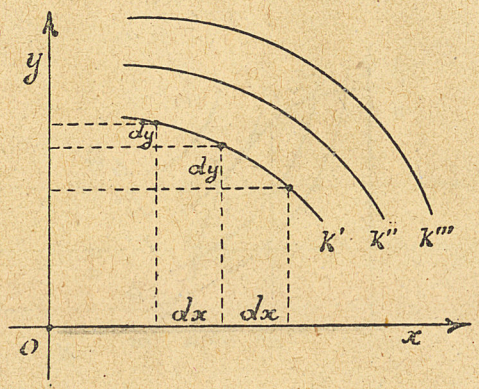
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dy
dy
K'
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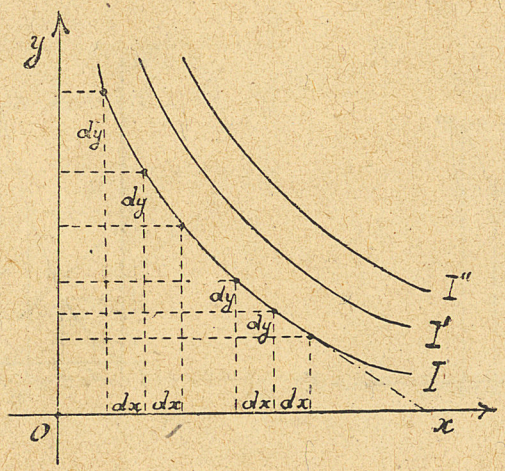
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dy
dy
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I
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dx
dx
dx
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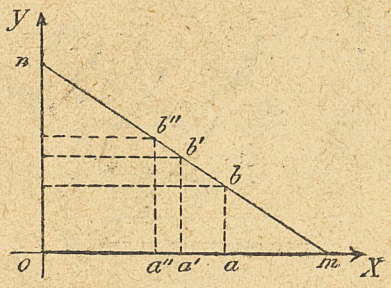
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b'
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a
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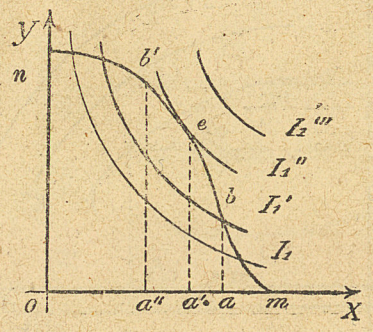
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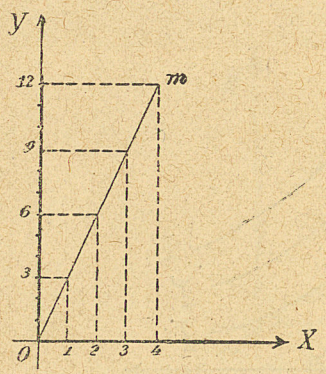
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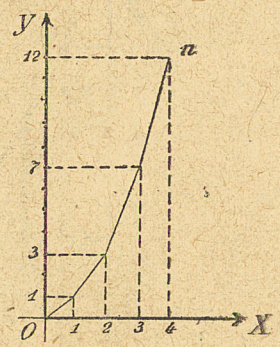
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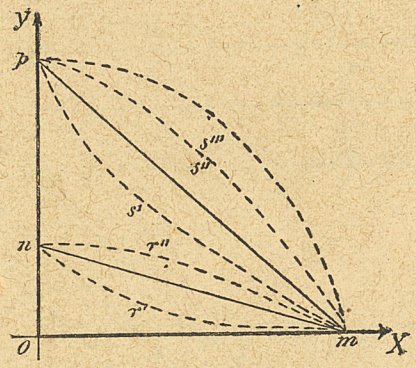
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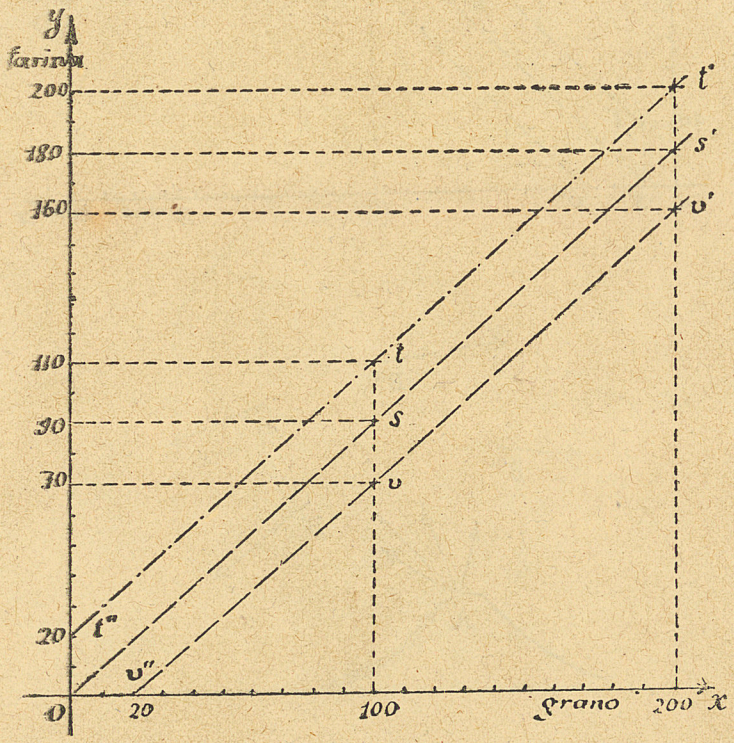
r''
r'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90
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20
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grano
200
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s'
v'
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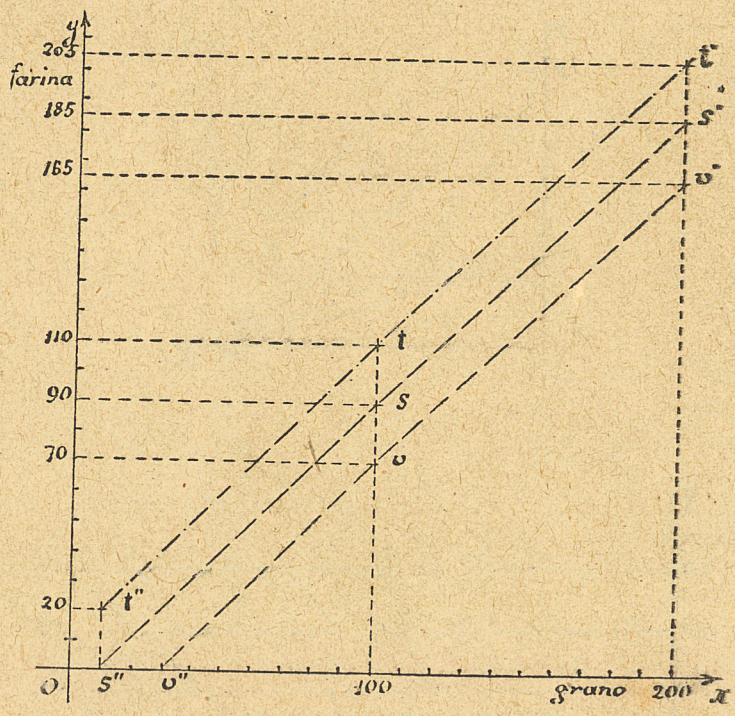
s
v
t''
v''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t'
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v'
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v
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s"
v"
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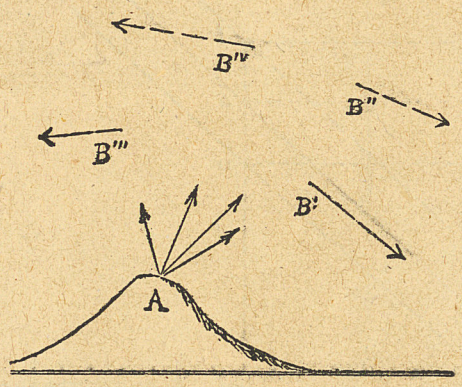
100
grano
200
x


B'''
B''
B'''
B'
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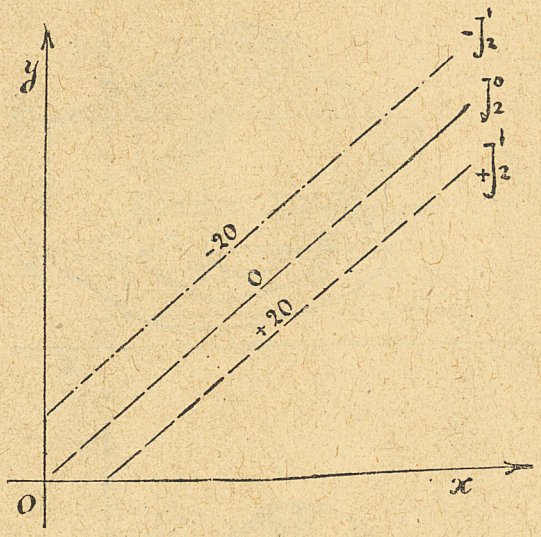
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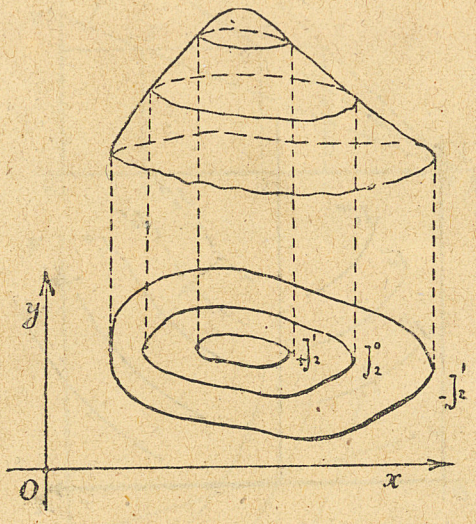
-J'₂
J°₂
+J'₂
-20
0
+20
0
x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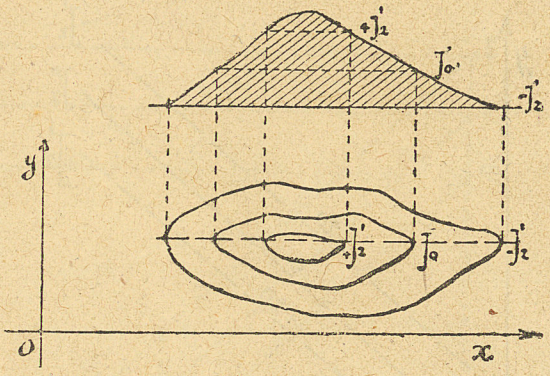
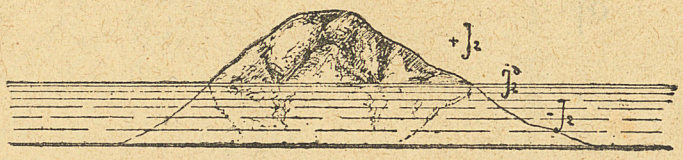
+J'₂
J°₂
-J'₂
0
x


+J'z
J'o
-J'z
y
+J'z
Jo
-J'z
o
x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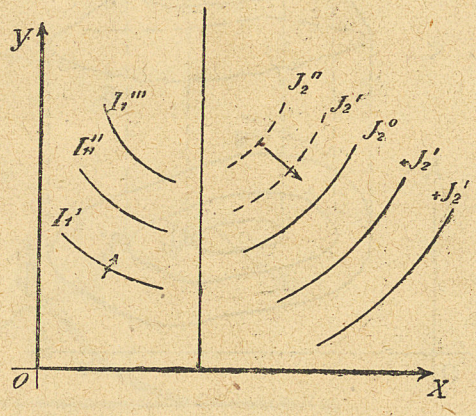
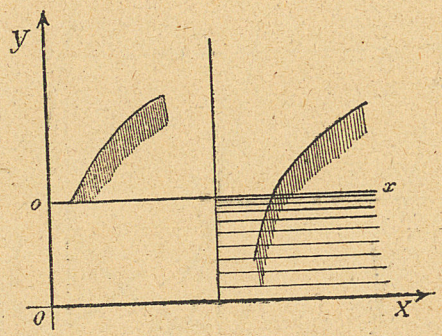
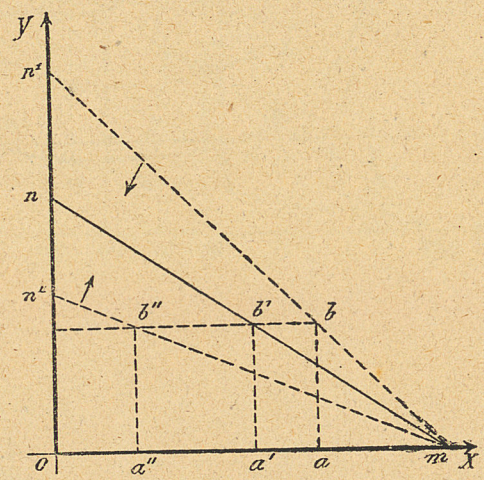

Y
J1'''
J1''
J1'
J2''
J2'
J2°
+J2'
+J2'
o
X


y
o
x
0
X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n''
b''
b'
b
0
a''
a'
a
m
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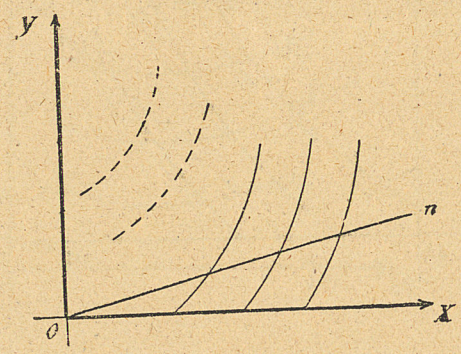
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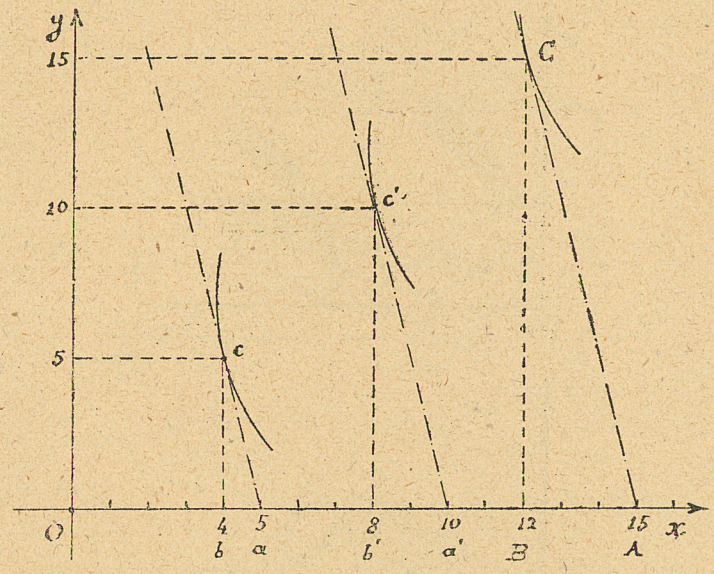
y
15
10
5
O
C
c'
c
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5
8
10
12
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a
b'
a'
B
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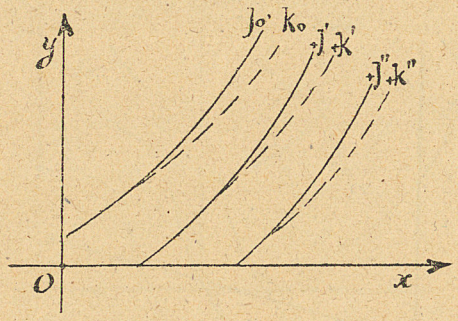
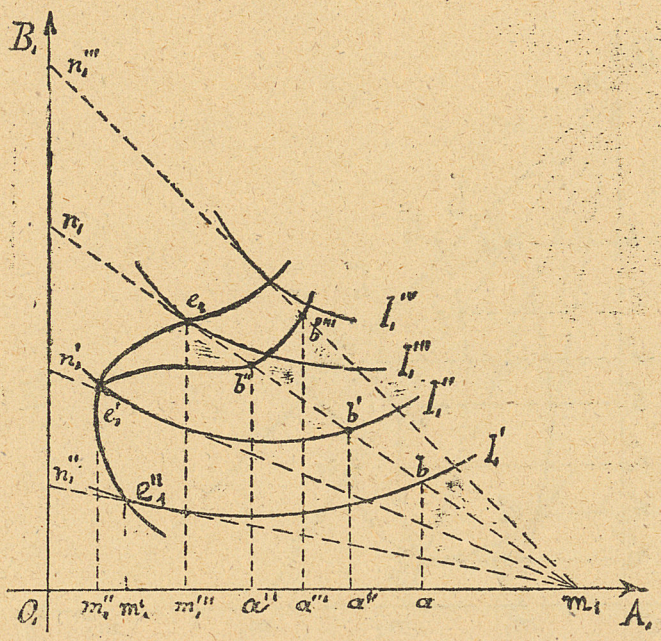
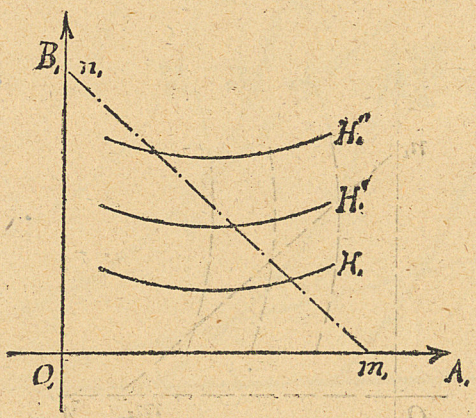
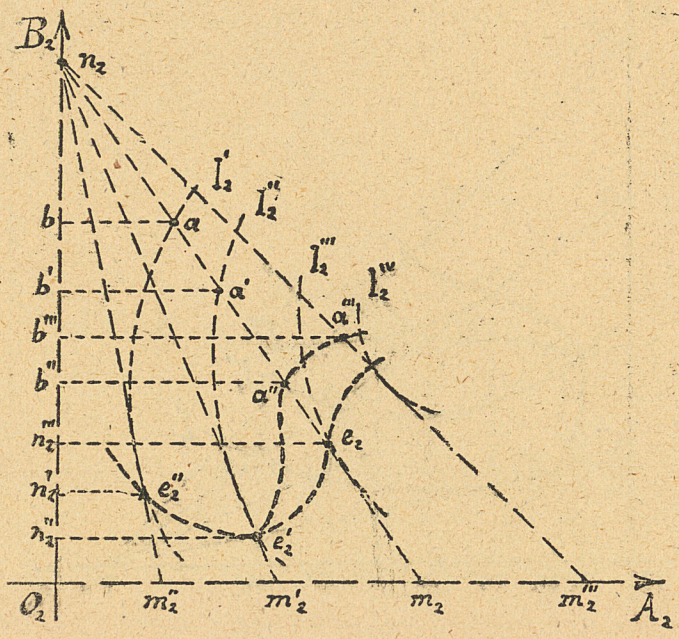
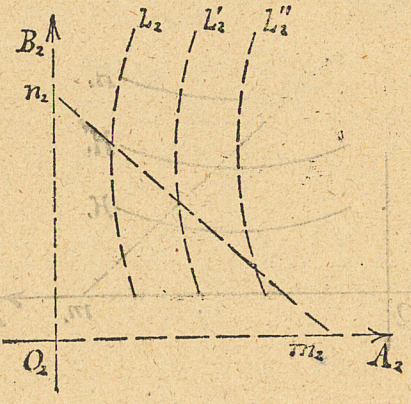
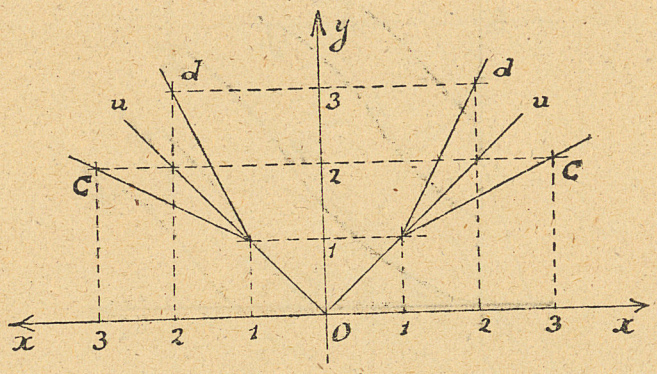

y
O
x
J0' K0
J'+K'
J"+K"

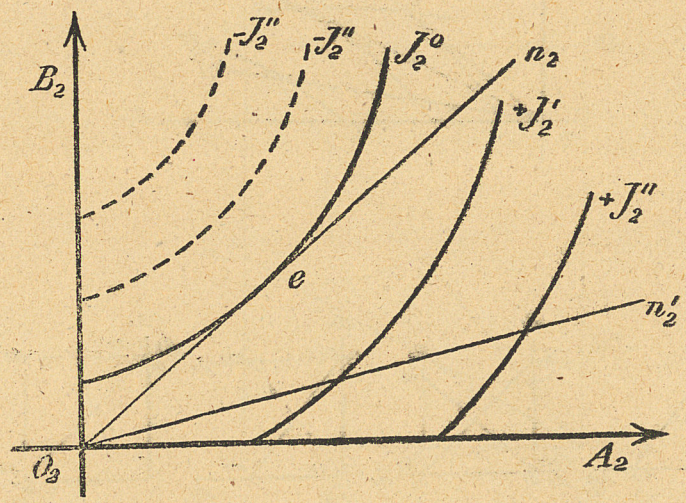

B₁
n₁'''
n₁
n₁'
n₁''
e₁
e₁'
e₁''
b'''
b''
b'
b
l₁'''
l₁''
l₁''
l₁'
O₁
m₁'' m₁' m₁''' a₁'' a''' a'' a
m₁
A₁

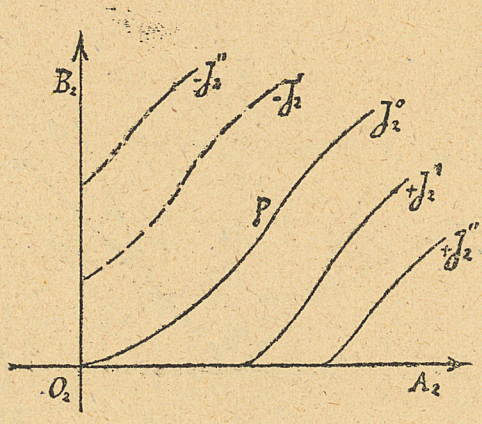

B₁
n₁
H₁''
H₁'
H₁
O₁
m₁
A₁

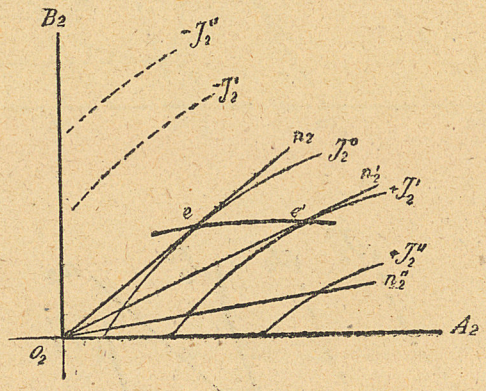

B_2
n_2
l_2
l_2''
l_2'''
l_2^{IV}
b
b'
b'''
b''
a
a'
a'''
a''
n_2'''
n_2'
n_2''
e_2
e_2''
e_2'
O_2
m_2''
m_2'
m_2
m_2'''
A_2

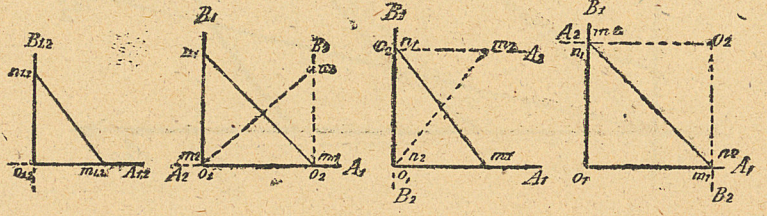

B_2
n_2
L_2
L_2'
L_2''
O_2
m_2
A_2

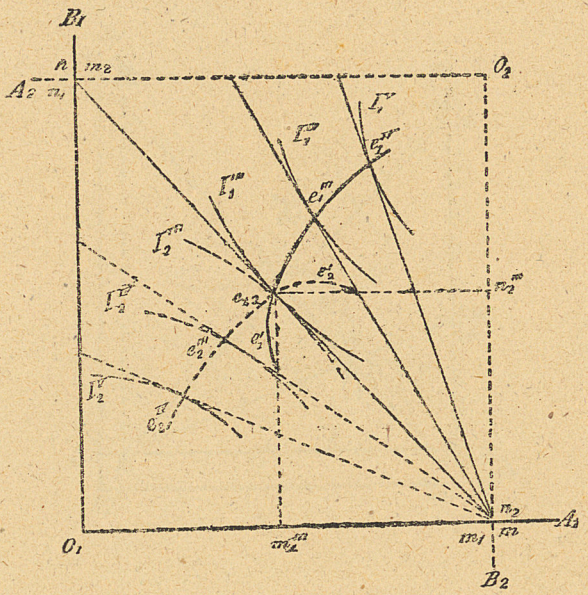

y
d
d
u
u
3
2
1
c
c
x
3
2
1
0
1
2
3
x

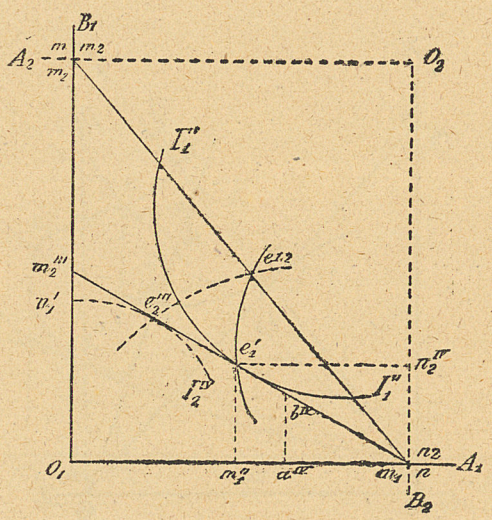

B_2
$-J_2''$
$-J_2''$
J_2^0
n_2
$+J_2'$
$+J_2''$
e
n_2'
O_2
A_2

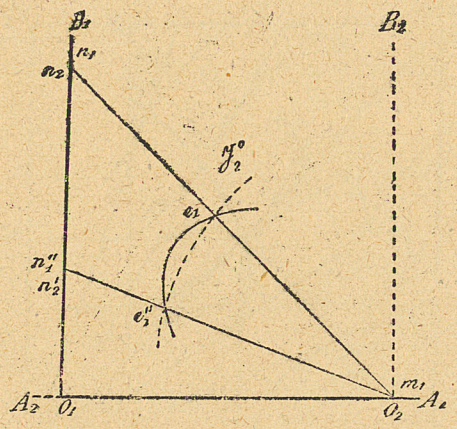

B_2
$-J_2''$
$-J_2'$
J_2^0
$+J_2'$
$+J_2''$
P
O_2
A_2

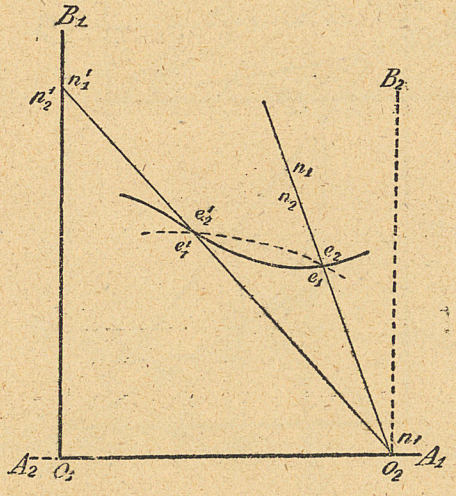

B_2
$-J_2''$
$-J_2'$
n_2
J_2^0
n_2'
$+J_2'$
e
e'
$+J_2''$
n_2''
A_2
O_2

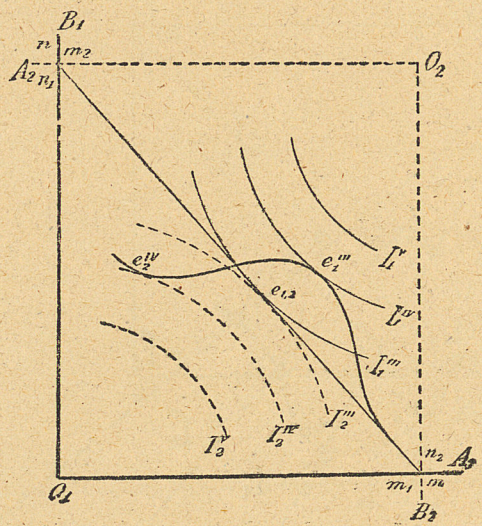

B_{12}
A_{12}
B_1
B_2
A_2
A_1
O_2
B_2
O_1
A_2
A_1
B_1
A_2
O_2
A_1
O_1
B_2

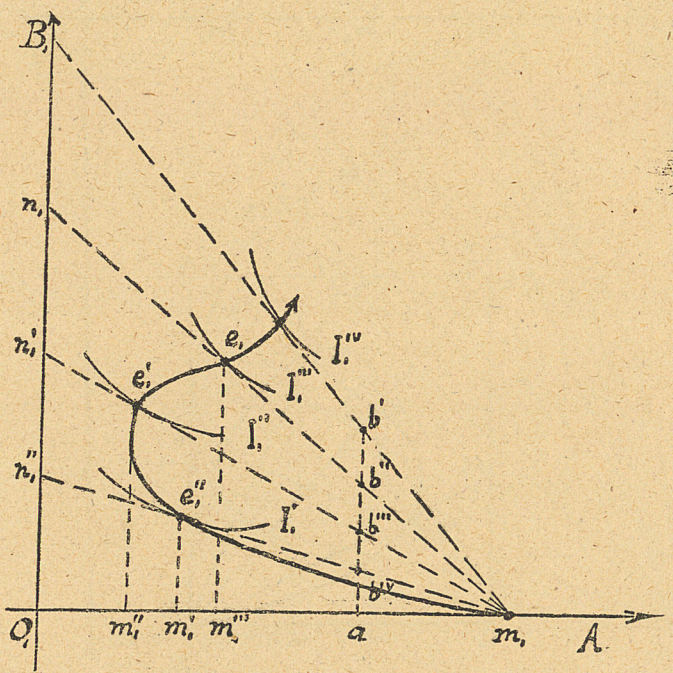

B1
O2
A2
O1
A1
B2

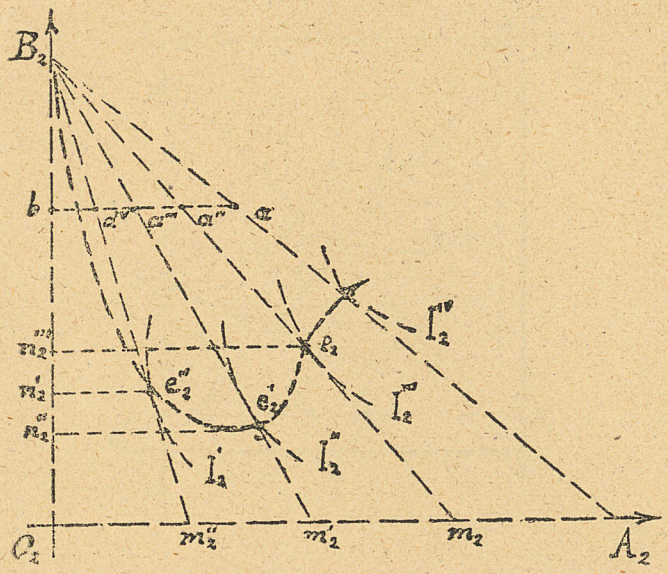

B1
O2
A2
O1
A1
B2

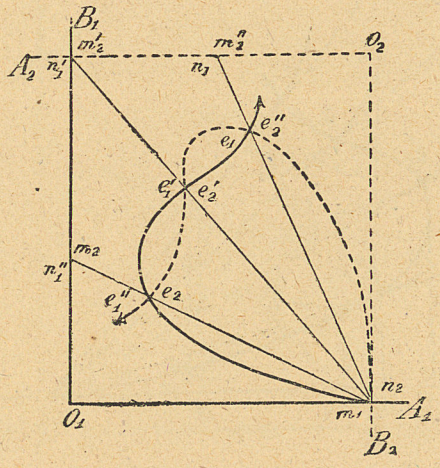

B_2
B_2
n_1
n_2
y_2^0
e_2
n_1''
n_2'
e_2''
m_1
A_2
O_1
O_2
A_2

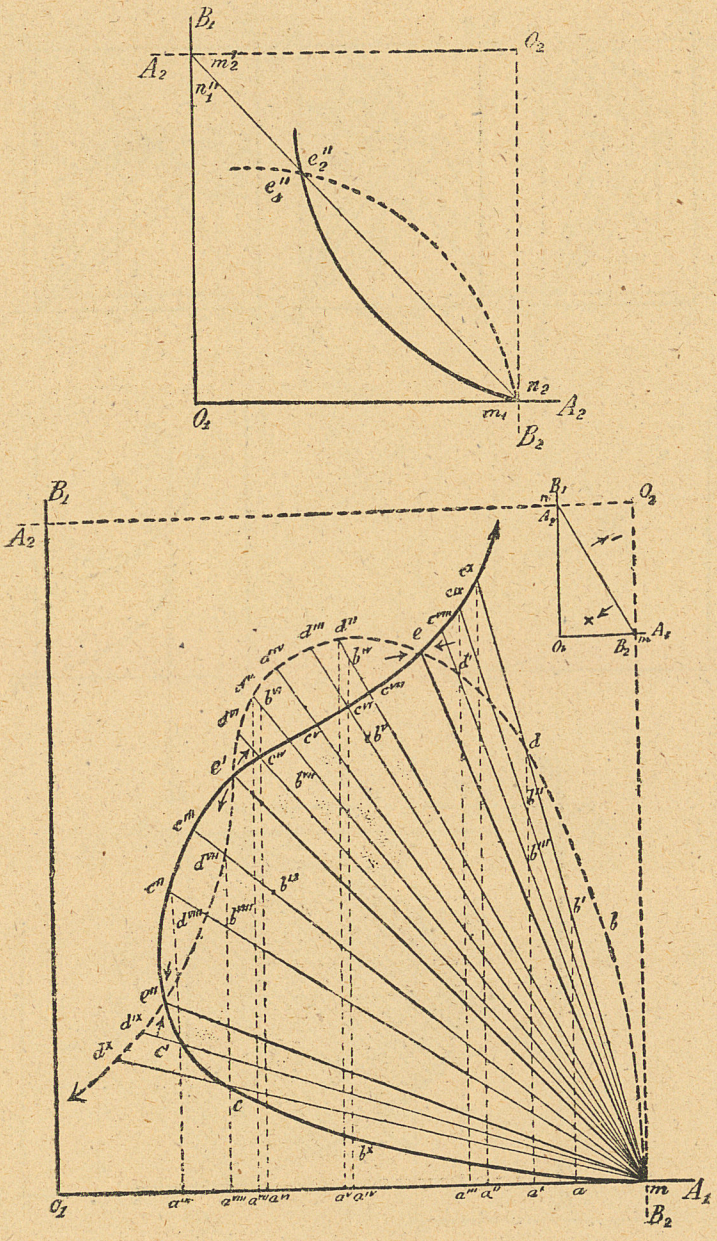

B_2
n_1'
n_2'
B_2
n_1
n_2
e_2'
e_1'
e_2
e_1
n_1
A_2
O_1
O_2
A_1

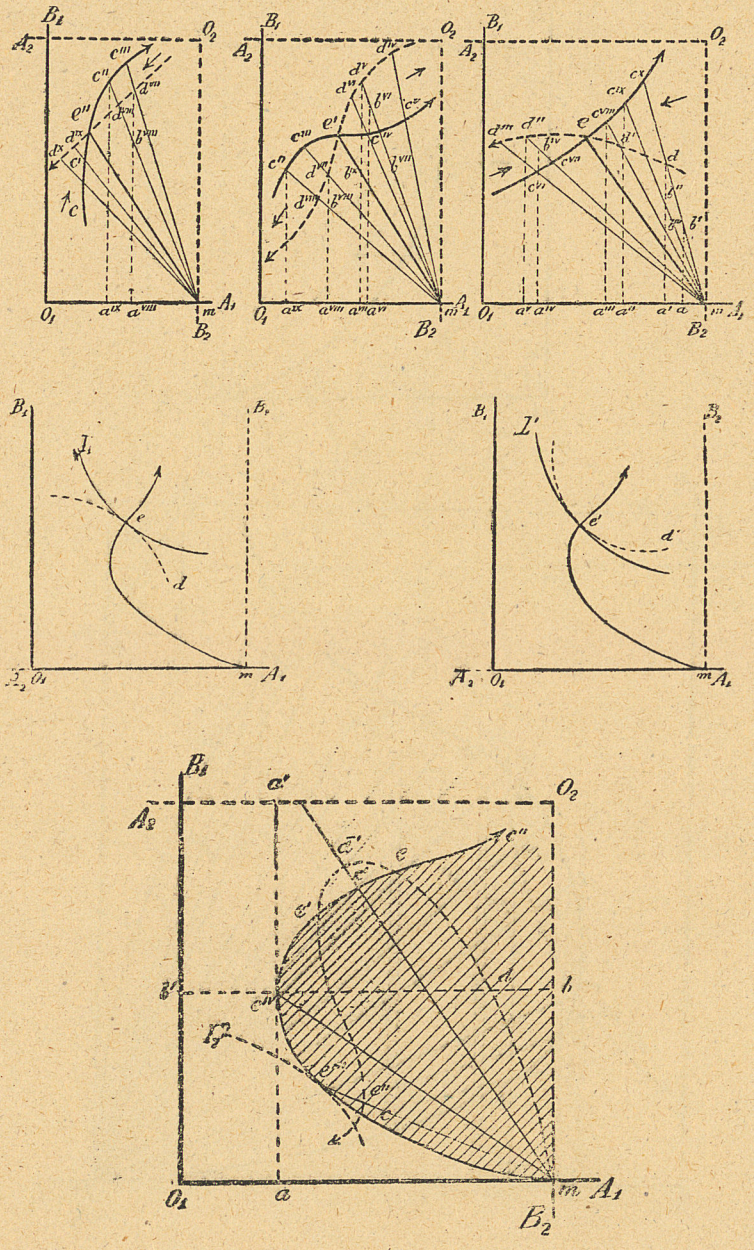

B_1
m_2
A_2
n_1
O_2
e_2^{IV}
e_1^{III}
$e_{1,2}$
I^V
I^{IV}
I_1^{III}
I_2^{III}
I_2^{II}
I_3^{II}
n_2
A_2
O_1
m_1
B_2

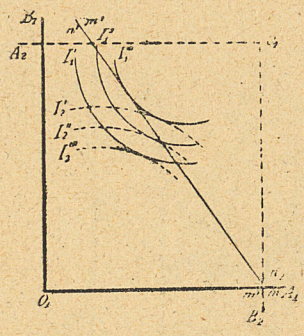

B_1
n_1
n_1'
n_1''
e_1
e_1'
e_1''
I_1^{IV}
I_1^{III}
I_1^{II}
I_1^{I}
b'
b''
b'''
b^{IV}
O_1
m_1''
m_1'
m_1'''
a
m_1
A

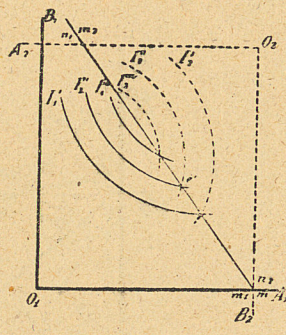

B_2
b
a'
a''
a
Γ_2''
n_2''
e_2
n_2'
e_2''
e_2'
Γ_2'
n_2
l_2'
l_2''
O_2
m_2''
m_2'
m_2
A_2

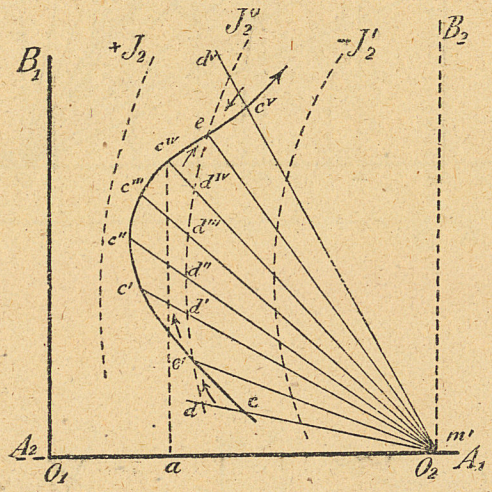

B_1
m_2'
m_2''
O_2
A_2
n_2'
n_2
e_2''
e_1
e_2'
e_2
m_{02}
n_2''
e_2''
e_2
n_2
O_1
m_1
A_1
B_2

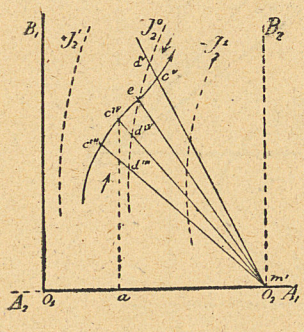

B_1
O_2
A_2
m_2^I
n_1^{II}
e_2^{II}
e_3^{II}
n_2
O_2
m_1
A_2
B_2
B_1
O_2
A_2
A_1
B_2
O_1
m
A_1
B_2
O_1

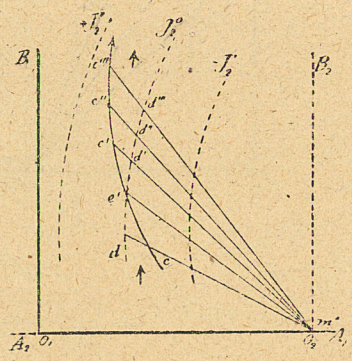


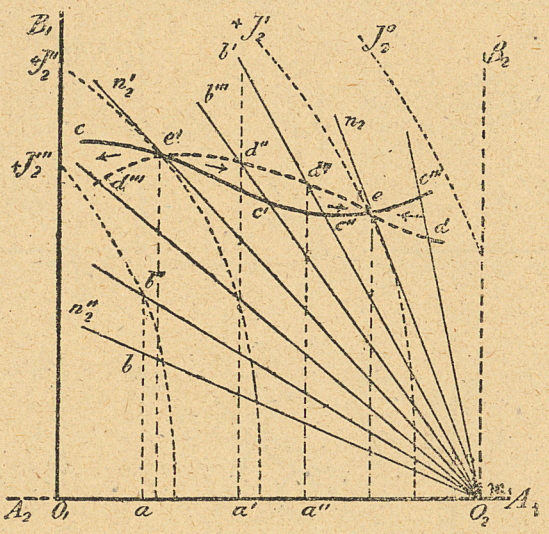


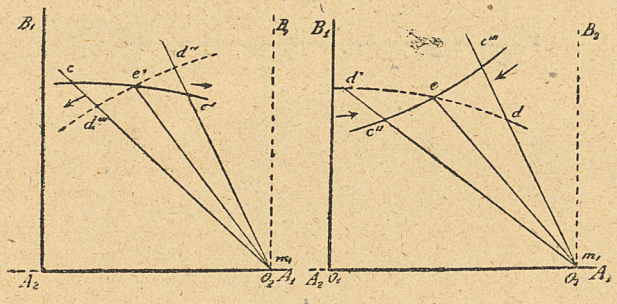


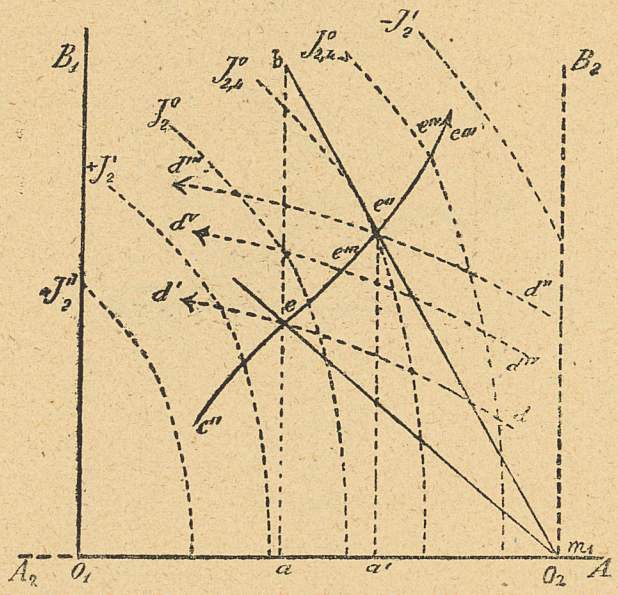

B_1
$+J_{2_1}$
J_2^0
d^v
$-J_2'$
B_2
c^v
e
c^{iv}
d^{iv}
c^{iii}
d^{iii}
c''
d''
c'
d'
c
d
e
A_2
O_1
a
O_2
A_1
m'

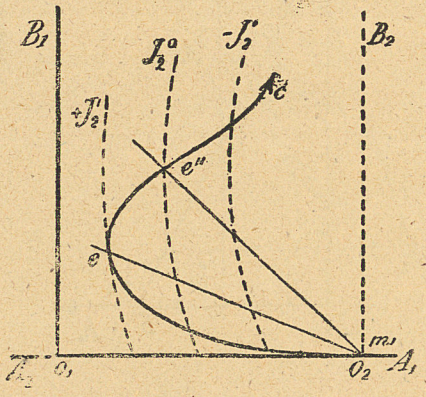


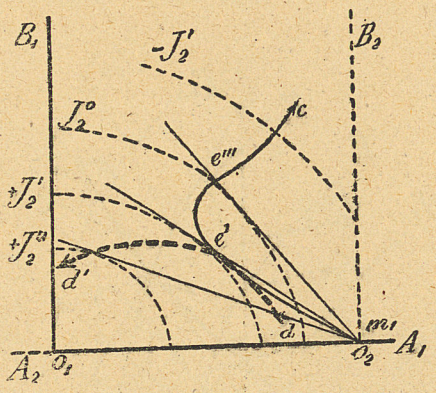


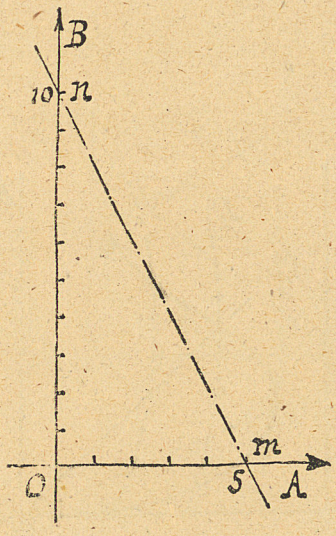

B_1
$+J_2''$
$+J_2'''$
n_2'
n_2''
$+J_2'$
J_2^0
B_2
b'
b'''
n_1
c
e'
d''
d'''
c'
c''
e
c'''
d
b
b''
A_2
O_1
a
a'
a''
O_2
A_1

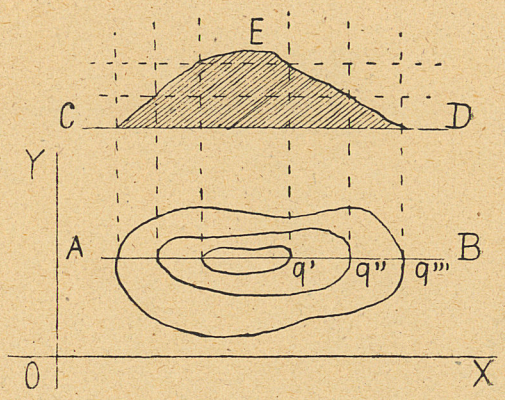

B_1
B_2
c
e'
d''
c'
d'''
m_1
A_2
O_2
A_1
B_1
B_2
c'''
d'
e
d
c''
m_1
A_2
O_1
O_2
A_1

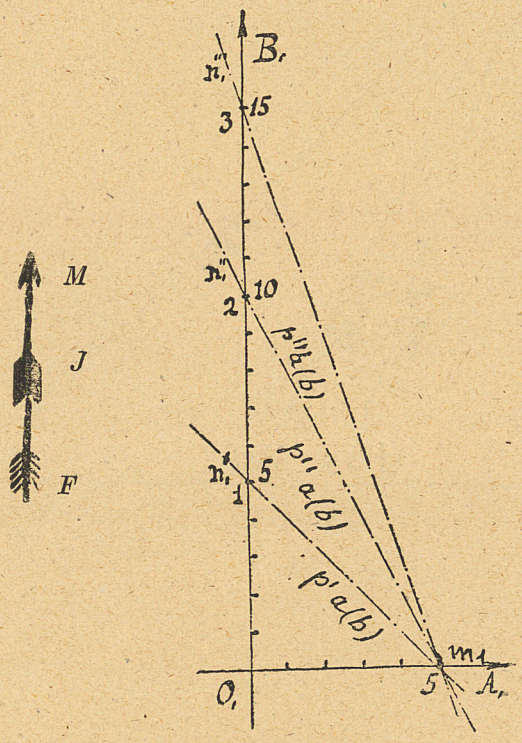

B_1
B_2
$J_{2,4}^0$
$J_{2,3}^0$
J_2^0
$-J_2'$
$+J_2'$
$+J_2''$
b
e^{IV}
e^{III}
e^{II}
e^{I}
e
d^{III}
d^{IV}
d^{I}
d''
d'''
d'
c''
m_1
A_2
O_1
a
a'
O_2
A

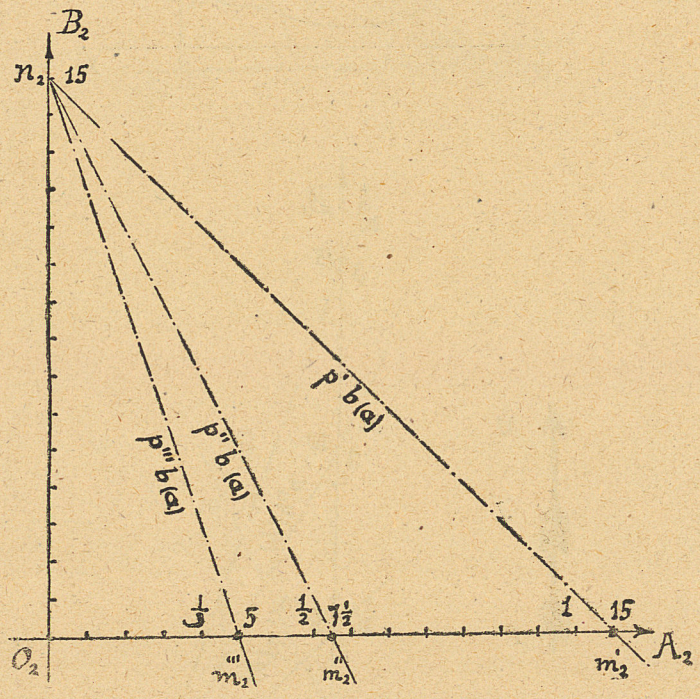

B_1
B_2
J_2^0
$-J_2'$
$+J_2'$
c
e''
e
m_1
O_1
O_2
A_1

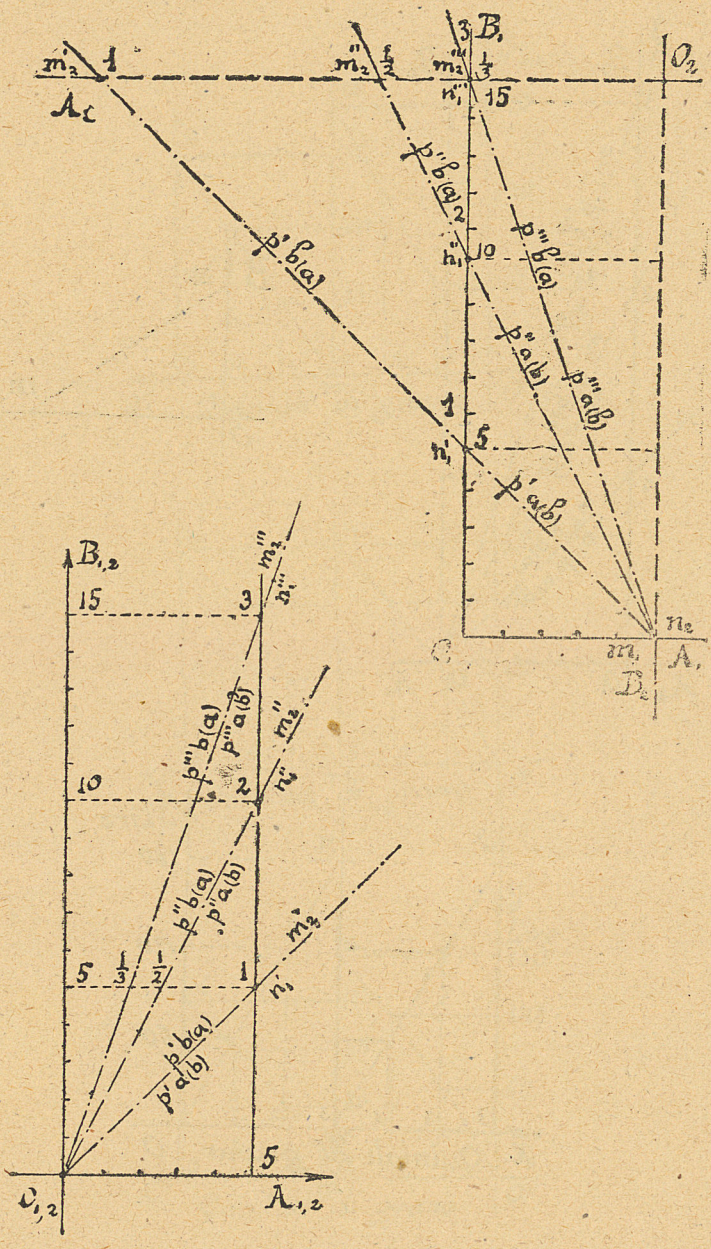

B_1
$-J_2'$
B_2
J_2^o
c
e'''
$+J_2'$
$+J_2''$
d'
d'
d
m_1
A_1
A_2
o_1
o_2

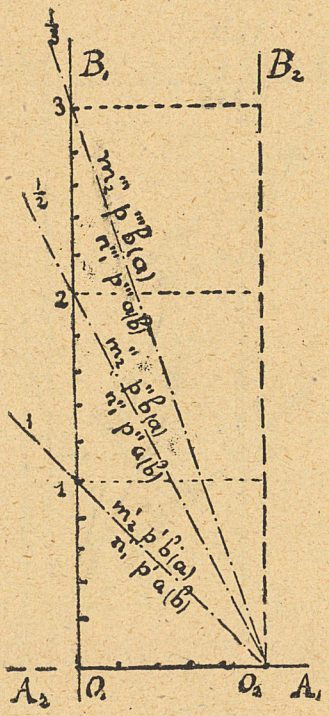

B
10
n
m
O
5
A

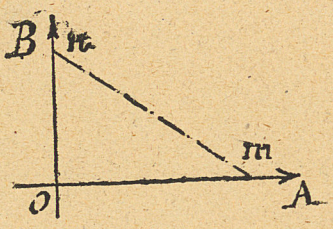

E
C
D
Y
A
B
q'
q''
q'''
0
X

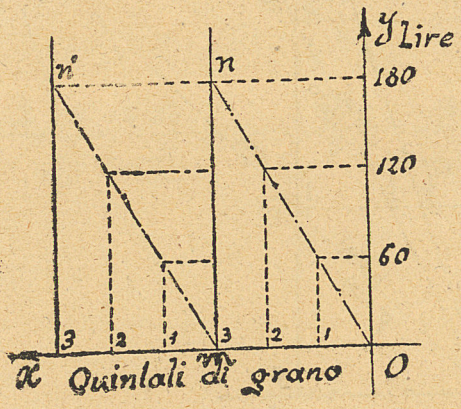

M
J
F
B₁
n₁'''
3
15
n₁''
2
10
p''₂(b)
n₁'
1
5
p'₁a(b)
p'₁a(b)
m₁
5
A₁
0₁

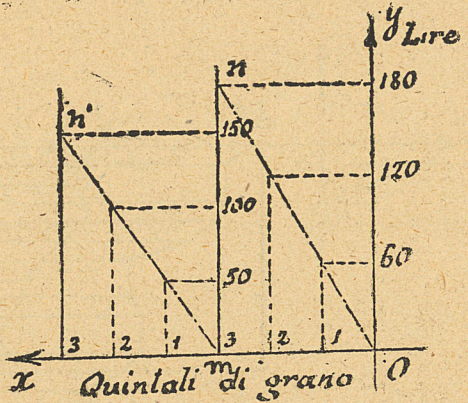

B_2
n_2
15
$p' b(a)$
$p'' b(a)$
$p''' b(a)$
$\frac{1}{3}$
5
$\frac{1}{2}$
$1\frac{1}{2}$
1
15
A_2
O_2
m_1'''
m_2''
m_2'

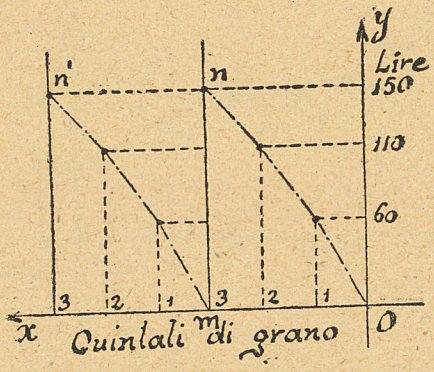

B1
O2
A2
15
10
5
3
1
B1,2
C1,2
A1,2
B2
C
A1

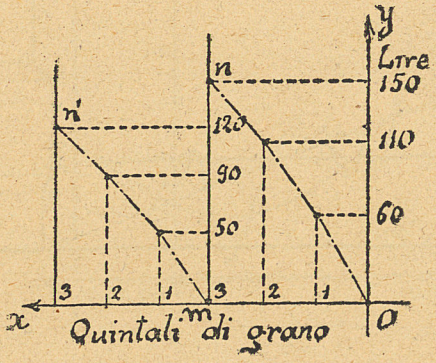

B1
B2
3
2
1
A2
O1
O2
A1

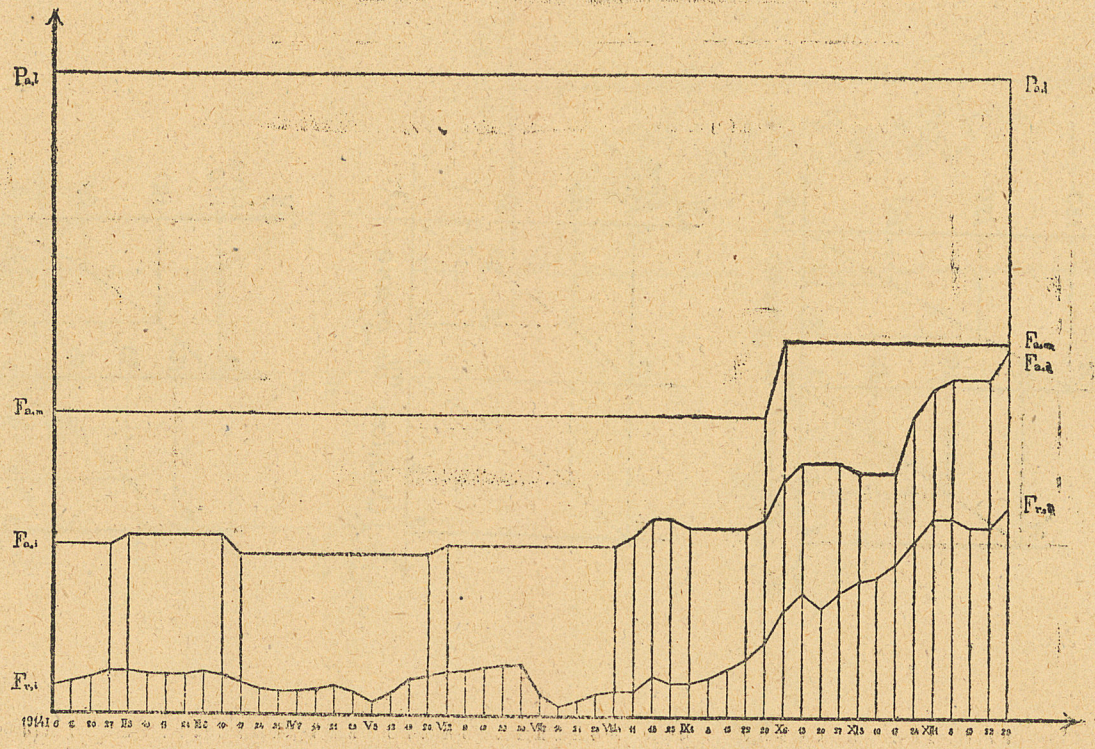

B
m
m
O
A


y Lire
n'
n
180
120
60
3
2
1
3
2
1
x Quintali di grano
O


y
Lire
n
n'
180
150
120
90
60
50
3
2
1
x
Quintali m di grano
O


y
Lire
n'
n
150
110
60
3
2
1
x
Quintali m di grano
O


y
Lire
n
n'
150
120
110
90
60
50
3
2
1
x
Quintali m di grano
O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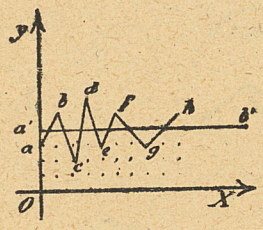
Fa.m
Fa.m
Fa.i
Fv.i
Fv.i
1941 d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b'
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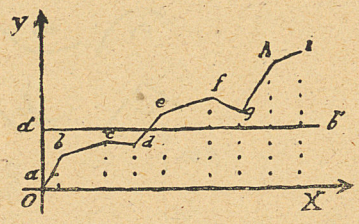
X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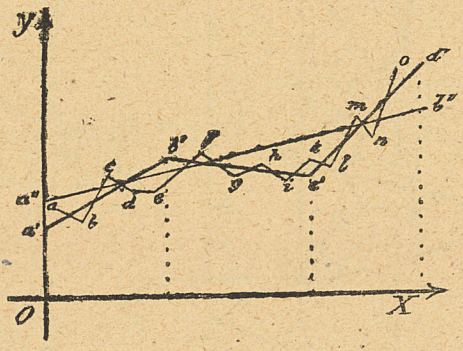
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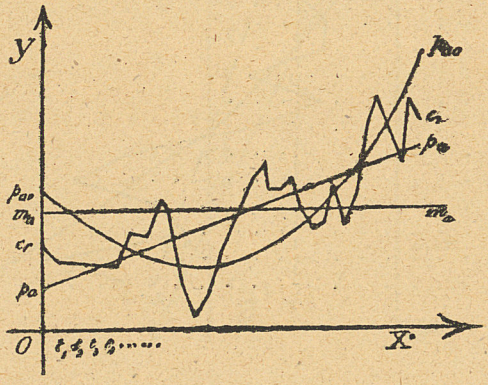
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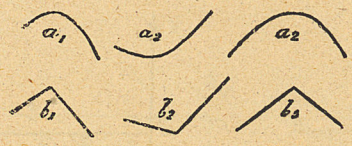
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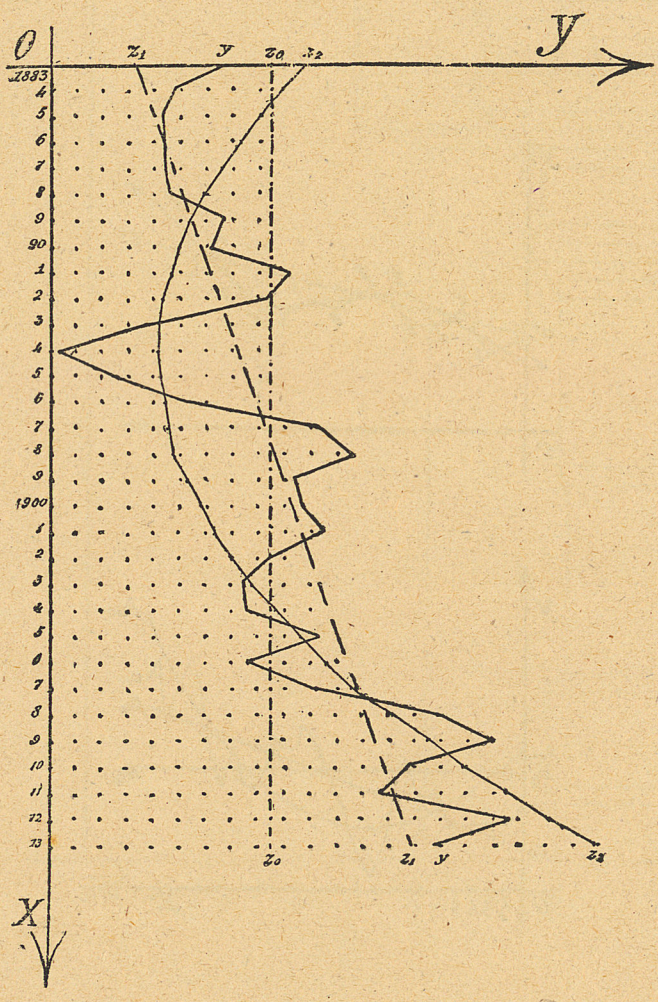
b_2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z_0
z_2
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6
7
8
9
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13
z_0
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y
z_2
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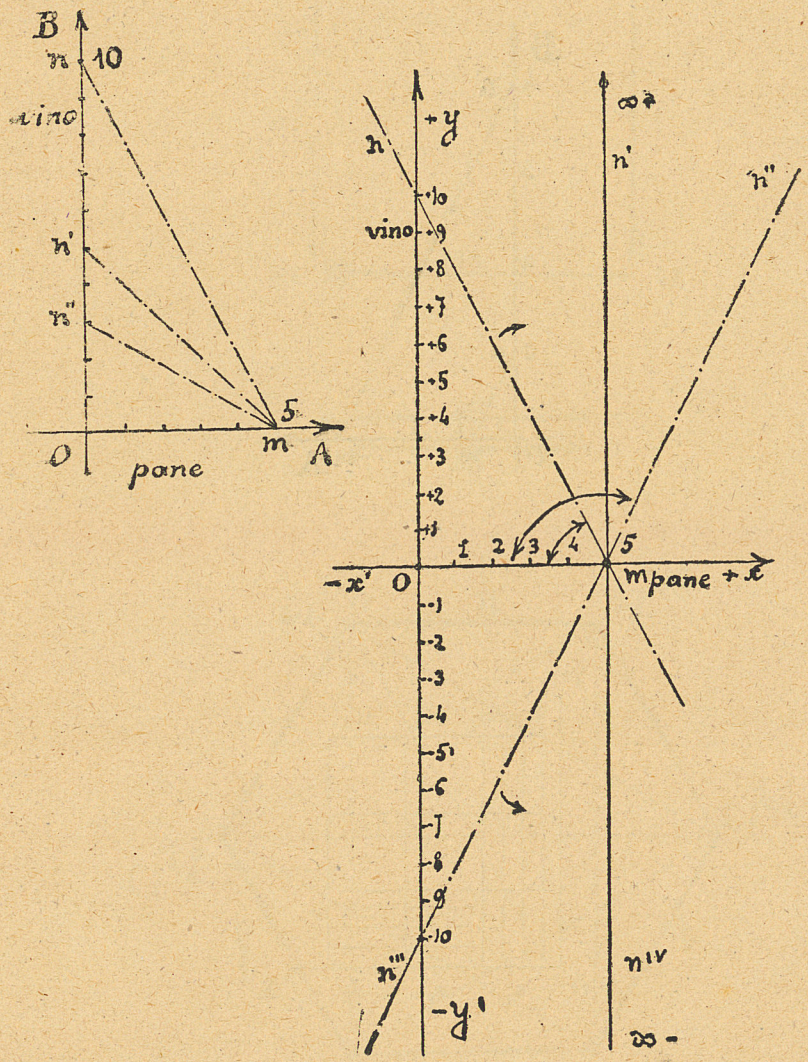
B
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10
vino
n'
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O
m
A
pane
+y
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9
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3
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5
-x'
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-1
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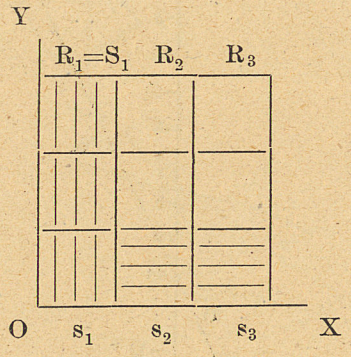
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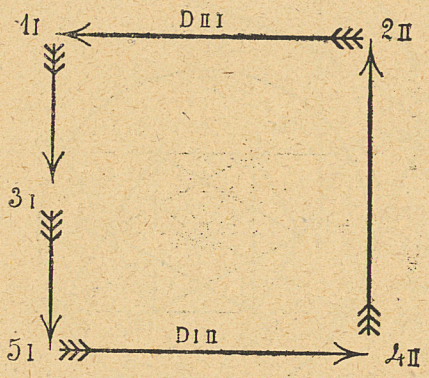
R2
R3
O
s1
s2
s3
X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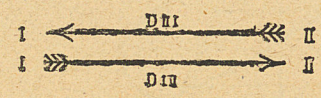
2II
3I
5I
DI II
4II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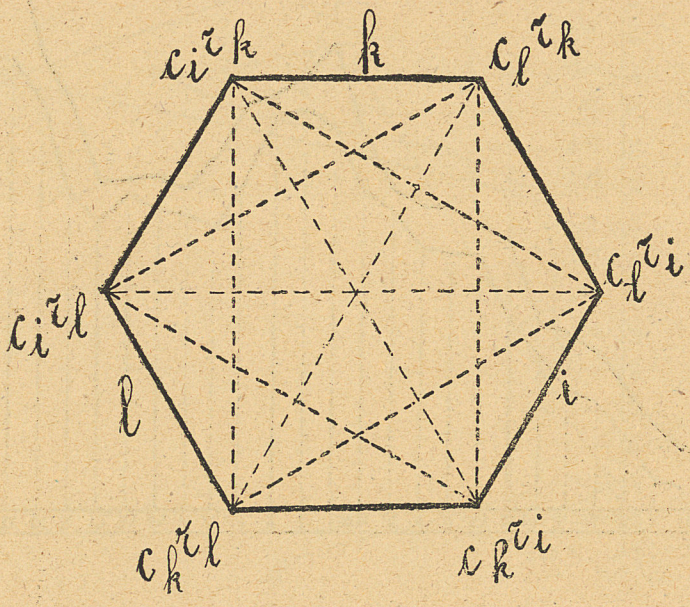
DII


$c_i^{\tau k}$
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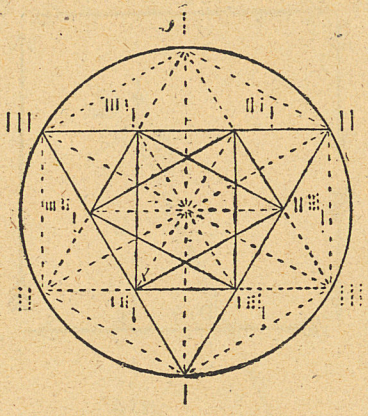
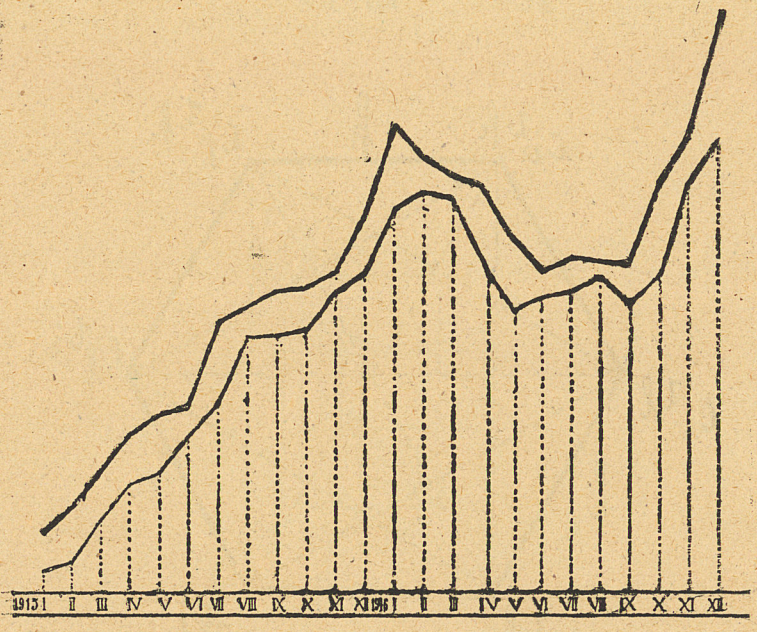
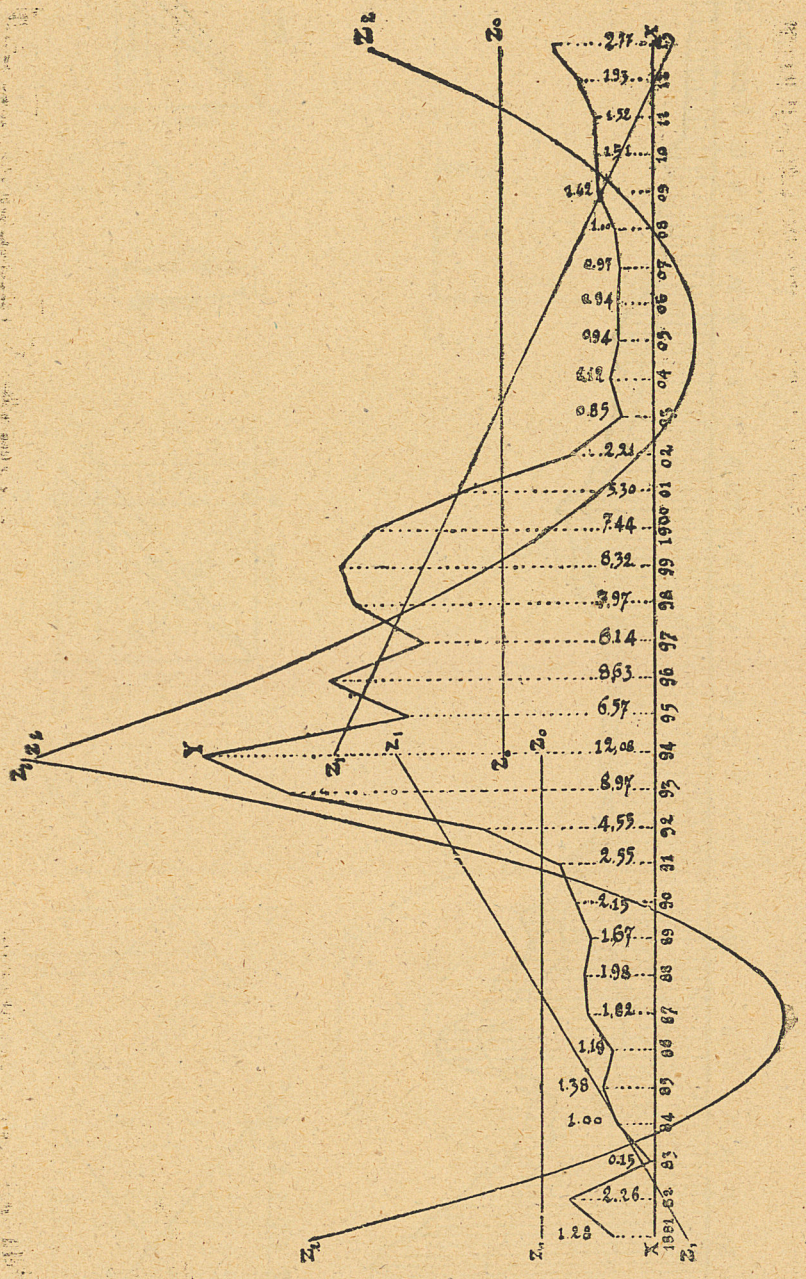
$c_l^{\tau k}$
$c_i^{\tau l}$
$c_l^{\tau i}$
l
i
$c_k^{\tau l}$
$c_k^{\tau i}$




1913 I II III IV V VI VII VIII IX X XI XII 1914 I II III IV V VI VII VIII IX X XI XII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0.84
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8.32
7.97
8.14
8.63
6.57
12.08
8.97
4.55
2.55
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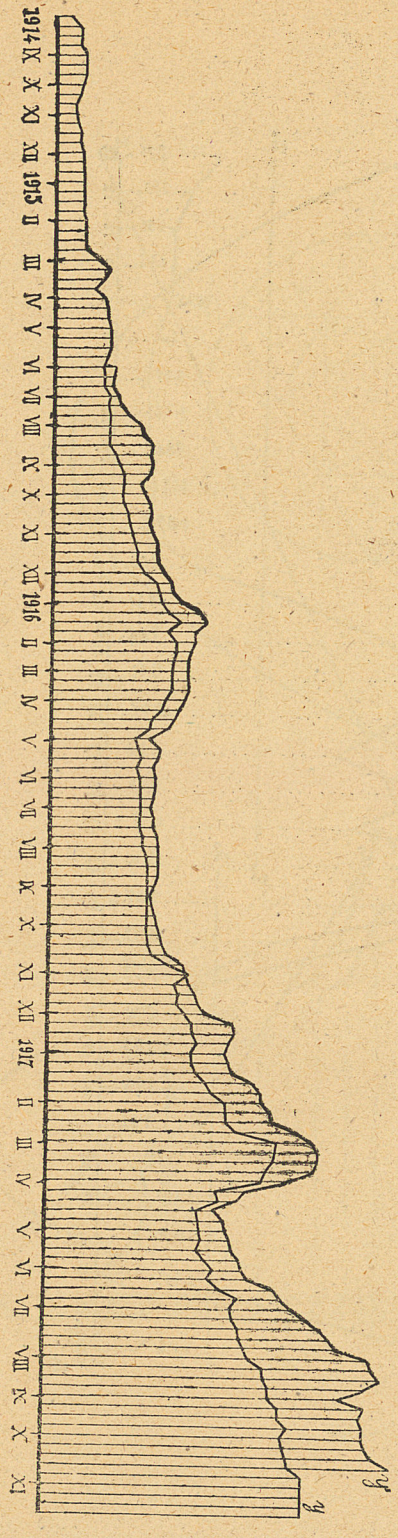
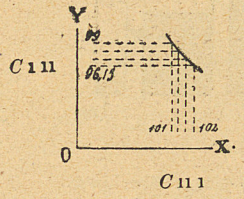

1914 XI XII 1915 II III IV V VI VII VIII IX X XI XII 1916 II III IV V VI VII VIII IX X XI XII 1917 II III IV V VI VII VIII IX X XI XII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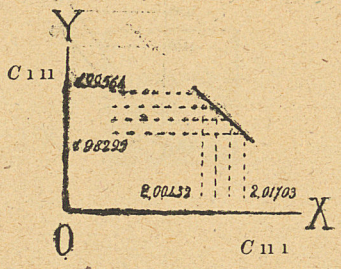
C III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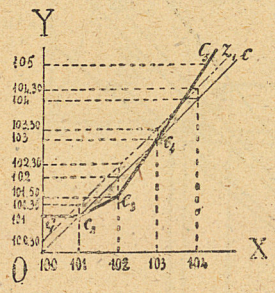
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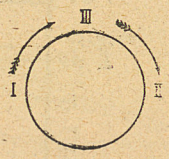
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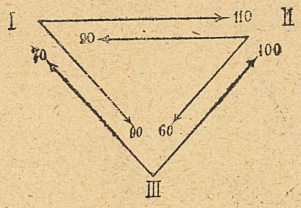
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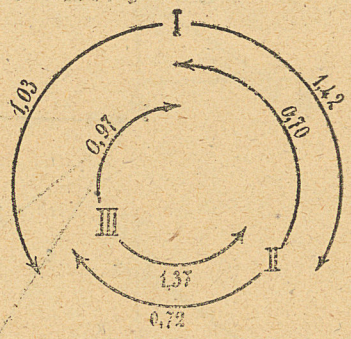
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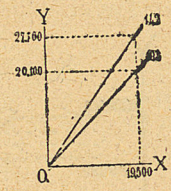
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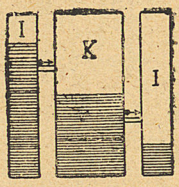
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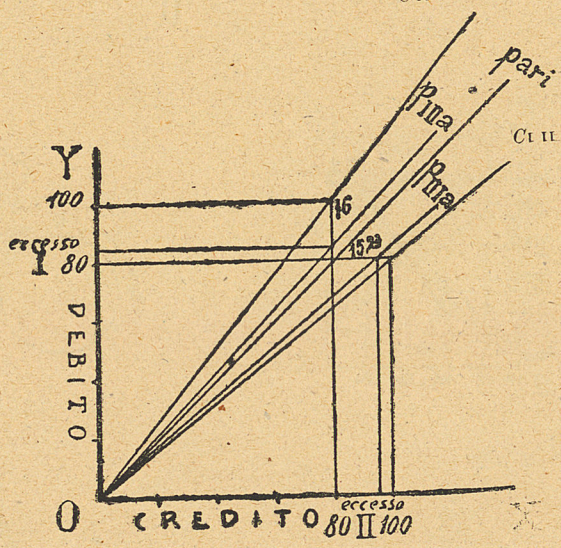
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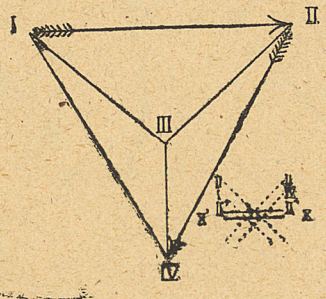
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III
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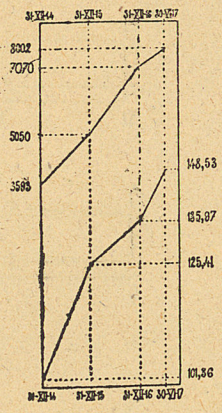
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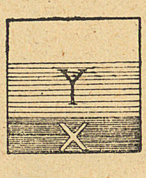
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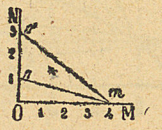
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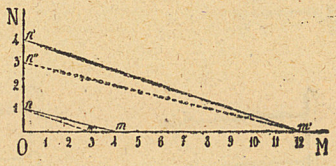
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m'
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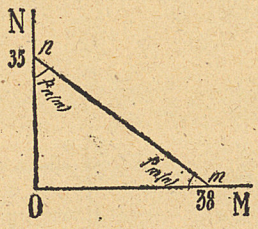
12
M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P₂(n)
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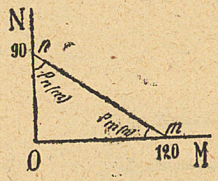
M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n
P₁(n)
P₂(n)
m
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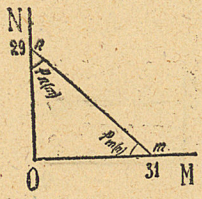
120
M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P₂(n)
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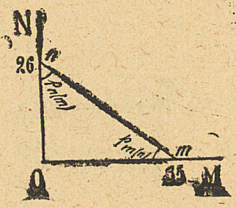
31
M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P₂(n)
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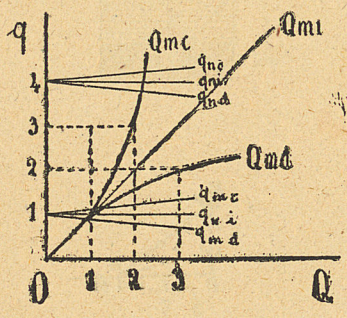
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Qmi
Qmd
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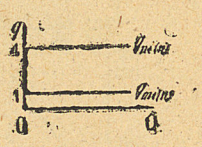
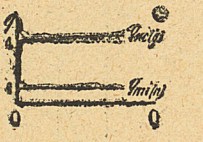
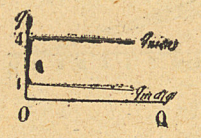
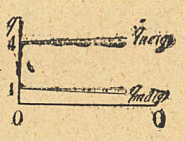
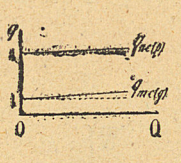
2
3
Q

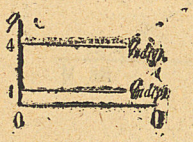


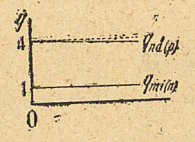


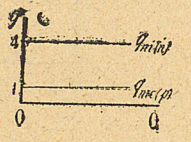


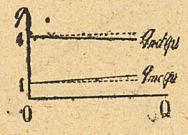


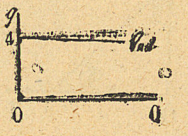


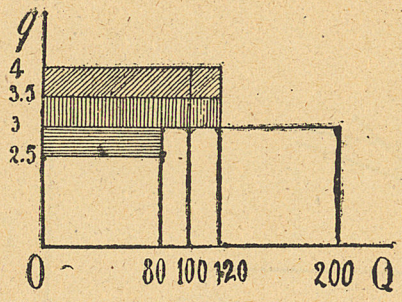








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200
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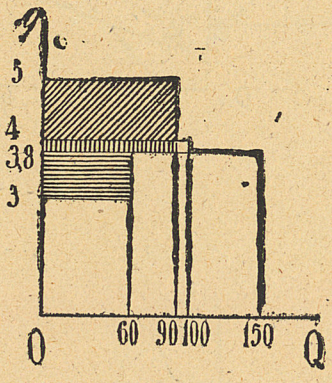
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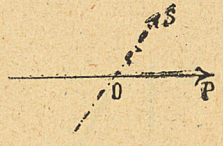
150
Q


S
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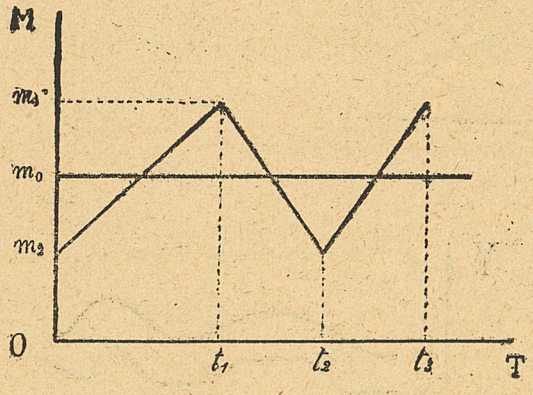
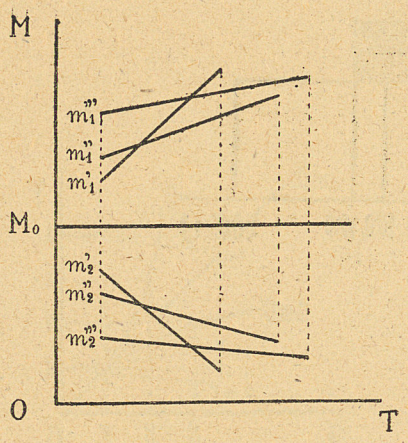
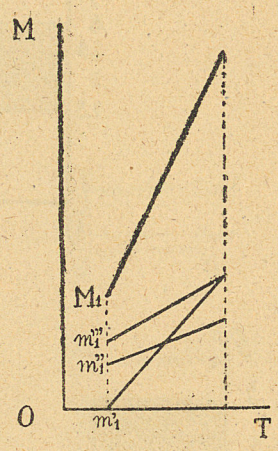
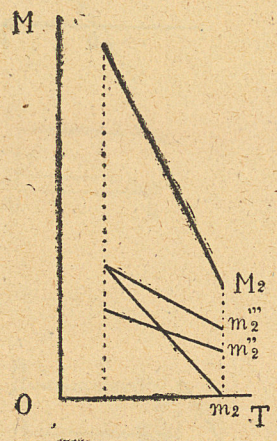
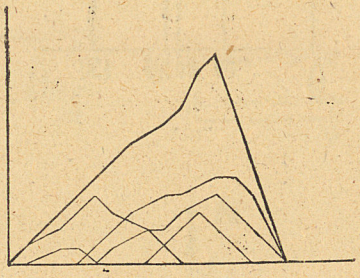
P

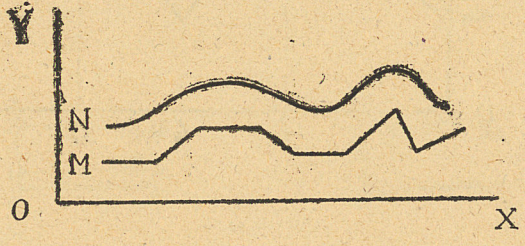

M
m_1
m_0
m_2
0
t_1
t_2
t_3
T

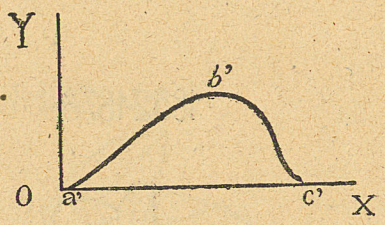

M
m_1'''
m_1''
m_1'
M_0
m_2'
m_2''
m_2'''
0
T

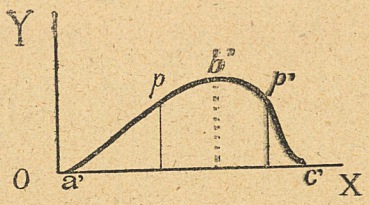

M
M_1
m_1''
m_1'''
0
m_1'
T

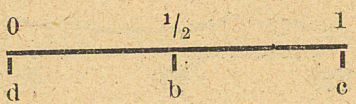

M
M_2
m_2'''
m_2''
0
m_2
T



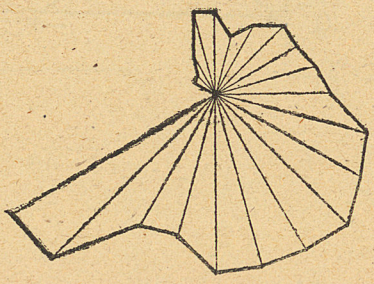

Y
N
M
0
X


Y
b'
0
a'
c'
X

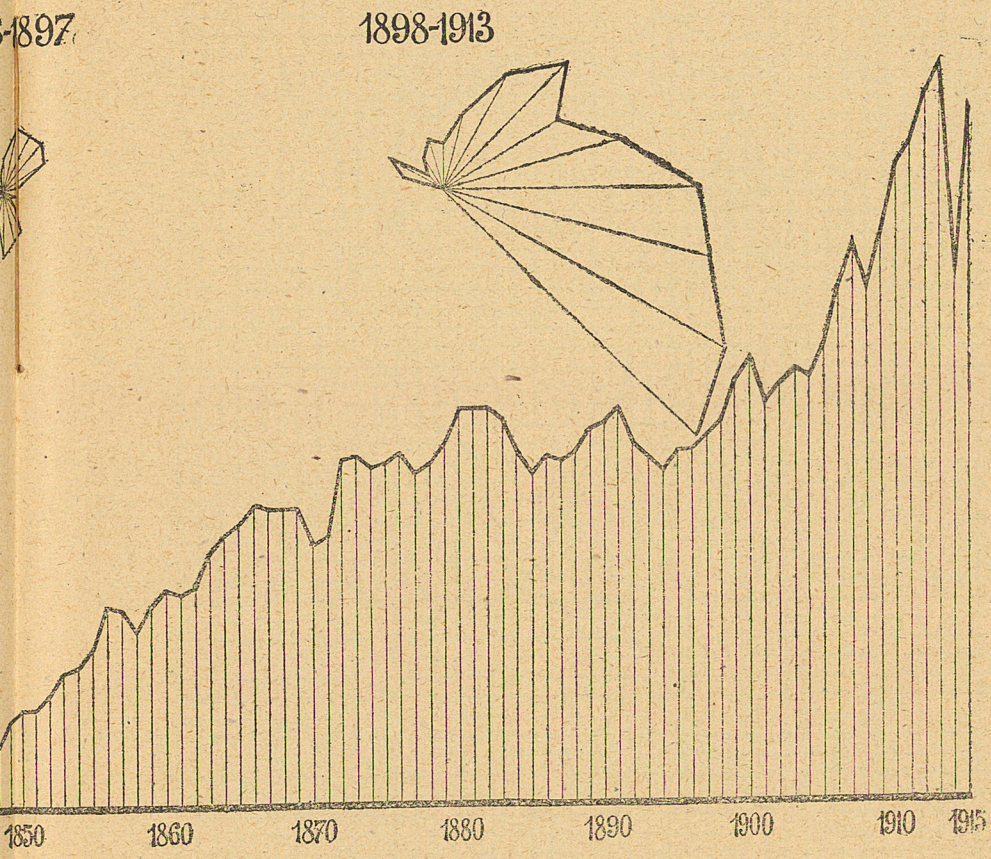

Y
p
b''
p'
0
a'
c'
X

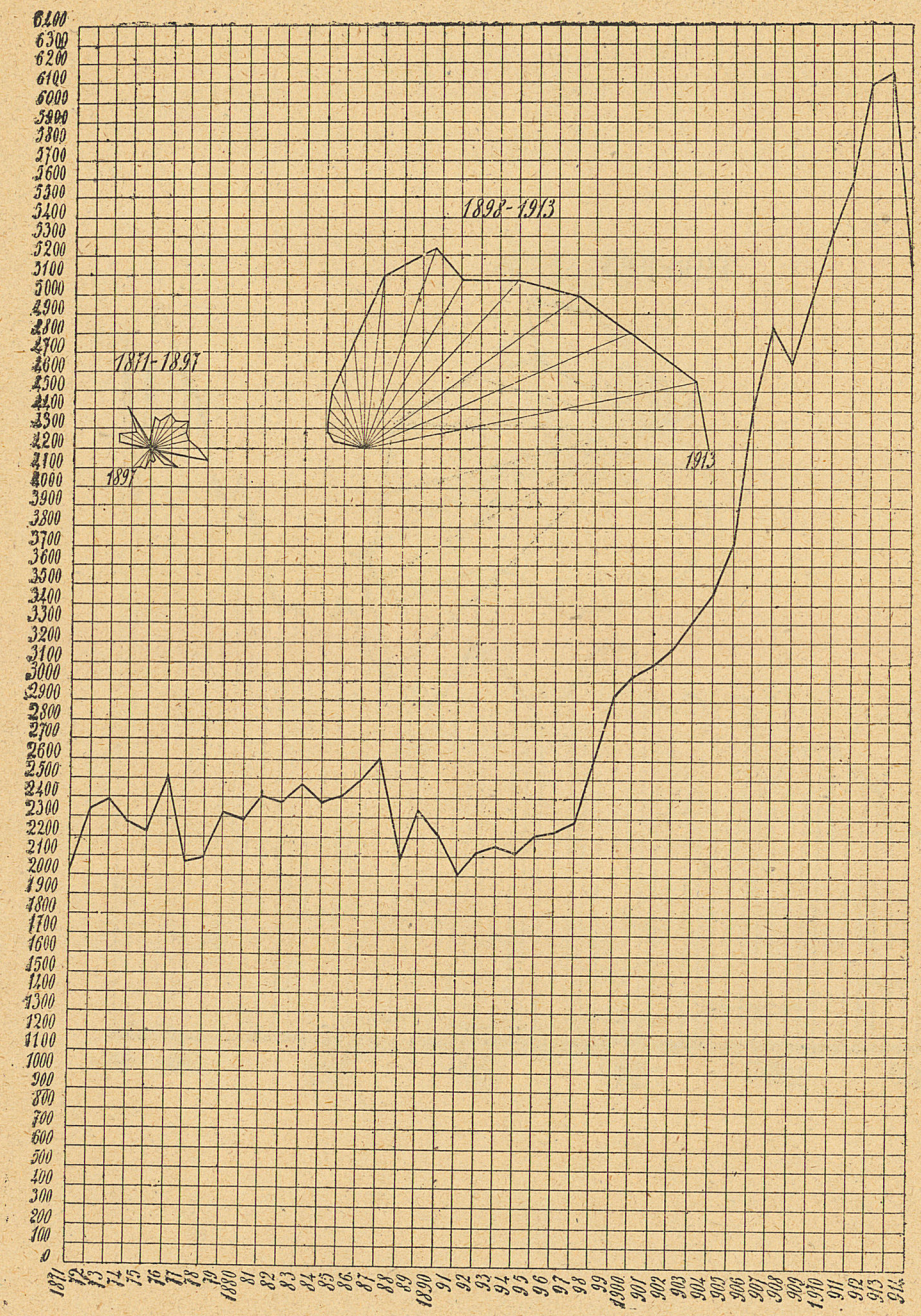

0
1/2
1
d
b
c

1852-1873



1873-


-1897
1898-1913
1850
1860
1870
1880
1890
1900
1910
1915


1871-1897
1897
1898-1913
1913

1876
1520
1835
1890
1885
1900
1905
1910

Prezzo L. 5