

Box 6

A REPORT ON THE LENGTH OF TIME REQUIRED BY  
INEXPERIENCED MICA SPLITTING  
OPERATORS TO ATTAIN EFFICIENCY

*34 pages*

1928

## DON'T DISCLOSE IDENTITIES

From the beginning of these studies, the identities of the persons under study have been kept confidential. We look to you to carry on this trust. Please guard the privacy of the persons involved by substituting fictitious names, or code symbols for real names.

### A Report on the Length of Time Required by Inexperienced Mica Splitting Operators to Attain Efficiency

A study was originated in October, 1948 to determine the length of time required for inexperienced mica splitting operators to attain experience.

The records of thirty-four (34) operators with one year or more of service on mica splitting were obtained and the weekly average hourly output over a ten week period was considered the efficiency standard.

Subsequent to this date fifty-two (52) operators were employed for mica splitting and this report indicates the length of time required by these employees to attain the efficiency standard of the thirty-four (34) experienced operators. Output records for the inexperienced operators were checked weekly and the week in which an operator attained the average weekly output of the experienced operators terminated the learning period. The intervening weeks between the starting date and this termination point was the length of time required for the operator to acquire experience.

The tabulation on Page 2 shows the number of weeks these individuals required to become experienced. The mean, median, and mode of this group of tabulations is also shown. The percentage figures show the grouping of operators by ten week periods.

No. of Weeks Required for an Experienced Mine Cutter to Attain Given Output		Percentage of the Operators Obtaining Given Output					
No. of Weeks	No. of Weeks to Obtain Attainable Output	1	4	8	12	16	20
1	1	1	0	0	0	0	0
4	4	1	1	0	0	0	0
8	8	1	1	0	0	0	0
12	12	1	1	0	0	0	0
16	16	1	1	0	0	0	0
20	20	1	1	0	0	0	0
TOTAL	1000	1	4	8	12	16	20
AVER.	10.0	1	4	8	12	16	20

Percentage  
of the  
Operators  
Obtaining  
Given Output

17 or 52.7      attained experience in 8 to 16 weeks

15 or 54.6      \*      "11"      30      \*

18 or 11.5      \*      "11"      30      \*

6 or 7.7      \*      "11"      30      \*

4 or 7.7      \*      "11"      40      \*

4 or 5.0      \*      "11"      50      \*

5 or 15.0      \*      "11"      60      \*

100.0

Mean      10.0 weeks  
Median      15      \*  
Mode      14      \*

\* the weekly average hourly output of the 24 experienced operators for ten weeks (10-6-58 to 10-6-68) was 105.0. This figure was used to determine the weekly average hourly output an inexperienced operator had to attain.

After obtaining the results of this study an attempt was also made to determine the effects of age, nationality and marital status upon the length of time necessary to attain efficiency.

Page 4 shows the classification of operators by nationality, age and marital status showing the actual number of operators and the percentage of the group falling in each classification.

Page 4A shows the relation of age to the length of time to acquire experience. Operators between the ages of 22 to 35 years seemed to require the shortest training period. It will be noted that operators of 36, 41 and 55 years required a short training period, however, the number of instances are so few that the element of chance may be a determining factor.

Page 4B shows the relation of place of birth to length of time required to attain experience. These operators were classified as those born in the United States and those born in Europe. These operators were also placed in ten week groupings in order to show the percentage of operators in each grouping. The comparison of the averages of the group born in the United States with those born in Europe indicates that the foreign born employees were able to attain experience in less time than those born in the United States. No doubt social and economic differences between this country and Europe are contributing factors to these results.

Page 4C shows the relation of marital status to the length of time necessary to attain experience. The averages of the single and married operators indicate that married employees attain experience in less time than single employees. The number of cases of divorcees and widows are so few that chance may be a predominating factor.

Classification of 33 Inexperienced Operators  
by Personality, Age and Marital Status.

Nationality (Extraction)	% No. of of the Oper. Group		Age %		No. of of the Oper. Group		No. of of the Marital States	
	No. of Oper.	Group	No. of Oper.	Group	Range (Yrs.)	No. of Oper.	Group	States
Polish	22	42.4	21	40.4	20 to 22	35	67.4	Single
Austro-Hungarian	5	9.6	15	28.9	23 to 25	15	25.0	Married
German	5	9.6	6	11.5	26 to 28	2	3.8	Widowed
Lithuanian	4	7.7	3	5.8	29 to 31	2	3.8	Divorced
Europe	4	7.7	-	-	32 to 34			
Bohemian	3	5.8	2	3.8	35 to 37	28	100.0	
American	3	5.8	3	5.8	38 to 40			
Russian	1	1.9	2	3.8	41 to 43			
Jugo-Slavian	1	1.9						
Moravian	1	1.9						
Czecho-Slovakian	1	1.9						
No record	2	3.8						
	58	100.0						

Relation of Age to Length of Time Required  
to Attain Experience

No. of Oper. Age	No. of Weeks Required to Attain Exper. Average	No. of Oper. Age	No. of Weeks Required to Attain Exper. Average
5 20	6 8 23 43 54	8 25	7 9 10 11 15
9 21	5 9 9 15 16 16 33 39 56	8 26	80 29 17 41 29.0
7 22	6 8 10 10 12 15 23	8 28	10 42 14 14 14.0
4 23	6 14 18 31	8 30	14 14 14 5 22
3 24	12 14 15	1 40	26 26.0
		2 41	18 36.5

RELATION OF PLACE OF BIRTH TO LENGTH  
OF TIME REQUIRED TO ATTAIN EXPERIENCE

<u>Oprs. Born in the United States</u>			<u>Oprs. Born in Europe</u>		
No. of Oprs.	Percentage of the group	No. of wks. to attain expr.	No. of wks. to attain expr.	No. of Oprs.	Percentage of the group
10	28.6	3 to 10	3	6	37.5
13	37.2	11 to 20	5	5	31.2
4	11.3	21 to 30	5	2	12.5
2	5.7	31 to 40	6	2	12.5
3	8.6	41 to 50	6	1	6.3
3	8.6	51 to 60	8	-	-
Total 35	100.0		9	Total 16	100.0
				10	12
				10	14
				10	14
				11	17
				12	22
				14	22
				14	31
				15	33
				15	44
				16	Total 286
				16	
				16	Aver. 16.6
				18	
				18	
				20	
				26	
				28	
				29	
				39	
				41	
				42	
				43	
				54	
				55	
				56	
			Total 752		
					Aver. 21.5

RELATION OF MARITAL STATUS TO LENGTH  
OF TIME TO ATTAIN EXPERIENCE

Single				Married				Widow		Divorced	
No of Oprs.	Percent- age of the group	No of wks. to attain expr.	No of wks to attain expr.	No of Oprs.	Percent- age of the group	No of wks. to attain expr.	No of wks to attain expr.				
11	31.4	3 to 10	5	6	46.1	3 to 10	3	18	33		
14	40.0	11 to 20	5	3	23.1	11 to 20	5	26	55		
2	5.7	21 to 30	6	3	23.1	21 to 30	5				
3	8.6	31 to 40	6	-	-	31 to 40	8				
3	8.6	41 to 50	7	1	7.7	41 to 50	9				
2	5.7	51 to 60	8	-	-	51 to 60	10				
Total	35	100.0		13	100.0			14			
			9					14			
			9								
			10					16			
			10					22			
			10					22			
			11					29			
			12					44			
			12								
			14								
			14								
			14								
			15								
			15								
			16								
			16								
			17								
			18								
			18								
			20								
			28								
			29								
			31								
			35								
			39								
			41								
			43								
			54								
			56								
Total		695						201	44	88	
Aver.		19.9						15.4	22.0	44.0	

The investigation of nationalities show that almost the entire group was composed of slavic types. The absence of Latin types on this job was explained by the Employment Division who gave us information regarding the discrimination in selecting applicants.

The following information has a bearing on the selection of female employees. There is no routine against hiring Italian, Spanish, Greek or Jewish female applicants but they are not selected except in cases in which individuals of these nationalities are exceptionally qualified.

The Italians are very "clannish" and think the Western Electric Company should provide jobs for their family, relatives and friends and they are quite "peevish" and cause a commotion when they are turned down.

The large Bohemian and Polish population in the immediate vicinity of the works has created a source of labor supply from which the Company can recruit its employees without employing Latin types.

Many of the supervisors are Bohemian and Polish and the employment organization tries to send Bohemian girls to Bohemian supervisors and Polish girls to Polish supervisors because they get along well together.

Approximately sixty thousand female applicants passed through the Employment Division in 1928 and 1929 and only ten thousand were employed. This data indicates that an unlimited selection of female help is available which makes possible the discrimination in selecting applicants.

The Number of Weeks Required for Inexperienced Mica  
Splitting Operators to Attain Sufficient Experience to Equal  
the Weekly Average Hourly Output of Experienced Mica Operators

A study was originated in October, 1958 to determine the length of time required for inexperienced mica splitting operators to attain experience.

The records of thirty-four (34) operators with one year or more of service on mica splitting were obtained and the weekly average hourly output over a ten week period was considered the efficiency standard.

Subsequent to this date fifty-two (52) operators were employed for mica splitting and this report indicates the length of time required by these employees to attain the efficiency standard of the thirty-four (34) experienced operators. Output records for the inexperienced operators were checked weekly and the week in which an operator attained the average weekly output of the experienced operators terminated the learning period. The intervening weeks between the starting date and this termination point was the length of time required for the operator to acquire experience.

The tabulation on Page 8 shows the number of weeks these individuals required to become experienced. The mean, median, and mode of this group of tabulations is also shown. The percentage figures show the grouping of operators by ten week periods.

The Number of Weeks Required for 32 Inexperienced Mine  
Ski-Doo Operators to Attain Sufficient Experience to Equal  
the Weekly Average Hourly Output of 34 Experienced Mine Operators

No. of Oper.	No. of Weeks to Attain Spec.	No. of Oper.	Percentage of the Group	
1	3			
4	5			
2	6			
1	7			
2	8			
3	9			
4	10			
1	11			
2	12			
5	13			
2	14			
1	15			
6	16	17	32.7	attained experience in 5 to 10 weeks
1	17	18	34.6	" " * 11 to 20 weeks
3	18	6	11.5	" " * 21 to 30 weeks
1	19	4	7.4	" " * 31 to 40 weeks
2	20	4	7.7	" " * 41 to 50 weeks
1	21	5	5.8	" " * 51 to 60 weeks
	22	52	100.0	
	23			
	24			
	25			
	26			
	27			
	28			
	29			
	30			
	31			
	32			
	33			
	34			
	35			
	36			
	37			
	38			
	39			
	40			
	41			
	42			
	43			
	44			
	45			
	46			
	47			
	48			
	49			
	50			
	51			
	52			
Total	52	1028		

Mean 20.0 weeks  
Median 15.4 "  
Mode 14 "

NOTE: \* The weekly average hourly output of the 34 experienced operators for ten weeks (10-6-28-to 12-6-28) was 165.0. This figure was used to determine the weekly average hourly output an inexperienced operator had to attain.

Mean = 20.0  
Per-Mean = 1.38  
S.D. = 14.8

-3-

After obtaining the results of this study an attempt was also made to determine the effects of age, nationality and marital status upon the length of time necessary to attain efficiency.

Page 4 shows the classification of operators by nationality, age and marital status showing the actual number of operators and the percentage of the group falling in each classification.

Page 4A shows the relation of age to the length of time to acquire experience. Operators between the ages of 22 to 25 years seemed to require the shortest training period. It will be noted that operators of 30, 31 and 32 years required a short training period, however, the number of instances are so few that the element of chance may be a determining factor. Combining the operators in three groups, those of ages 20 and 21, those between 22 and 25, and those between the ages of 26 and 41 years, a mean of 14.45 weeks for the second group shows that the learning period for this group is much shorter than that of groups 1 and 3, with means of 23.86 and 23.5 respectively. The critical ratio  $I = \frac{M_1 - M_2}{S_{\bar{x}_1} + S_{\bar{x}_2}}$  for groups 1 and 2 is 2.53, indicating that the chances are 50 in 100 that the true difference between the two groups is greater than zero. An I of 4.0 is required for absolute reliability, therefore 2.53 is 63.3% of that which is required for complete reliability. The I for groups 2 and 3 is 3.12 or 78 chances in 100 that the true difference is greater than zero. This critical ratio 3.12 is 78% of the I of 4.0 required to insure absolute reliability.

Page 4B shows the relation of place of birth to length of time required to attain experience. These operators were classified as those born in the United States and those born in Europe. These operators were also placed in ten week groupings, in order to show the percentage of operators in each grouping. The comparison of the averages of the group born in the United States, with those born in Europe indicates that the foreign born employees were able to attain experience in less time than those born in United States, there being a difference of 4.6 weeks in favor of the European operators. This result is not very reliable however because of the small size and distribution of the groups. The critical ratio  $(I = \frac{M_1 - M_2}{S_{\bar{x}_1} + S_{\bar{x}_2}})$  was only 1.72 which interpreted, means that the chances are 50 in 100 that the true difference between the two groups is greater than zero i.e. that there is a true difference. An I of 4.0 is required before the difference may be considered completely reliable. Therefore the obtained I, 1.72 is about 43% of what it should be in order to insure a true difference. (Completely reliable results.) No doubt social and economic differences between this country and Europe are contributing factors to these results.

Page 4C shows the relation of marital status to the length of time necessary to attain experience. The averages of the single

-8- (Cont'd.)

and married operators indicate that married employees attain experience in less time than single employees. However, the critical ratio ( $I_c$ ) is 1.6 which interpreted indicates that the chance are 50 in 100 that the true difference between the two groups is greater than zero i.e. that there is a true difference. The obtained  $I$  of 1.6 is about 40% of the  $I$  of 4.0 which is required to insure complete reliability. The number of cases of divorcees and widows are so few that chance may be a predominating factor.

Demographic of US Immigrant Operators  
IN MANUFACTURING AND SERVICE SECTORS

Nationality (Extraction)	No. of Oper.	% of the Group	Age			No. of Oper.	% of the Group	Marital status
			No. of Oper.	% of the Group	Range(Yrs.)			
Polish	22	45.4	21	40.4	20 to 29	36	67.4	Single
Austria Hungarian	3	9.6	15	28.9	23 to 25	13	25.0	Married
German	5	9.6	8	11.6	26 to 28	2	5.6	Widowed
Lithuanian	4	7.7	3	5.6	29 to 31	3	5.6	Divorced
Europe	4	7.7	—	—	32 to 34	—	—	—
Bohemian	3	5.8	2	5.6	35 to 37	—	—	—
American	3	5.8	3	5.6	38 to 40	—	—	—
Russian	1	1.9	2	5.6	41 to 43	—	—	—
Jugo Slavian	1	1.9	—	—	—	—	—	—
Moravian	1	1.9	—	—	—	—	—	—
Czechoslovakian	1	1.9	—	—	—	—	—	—
No record	2	5.6	—	—	—	—	—	—
	<b>52</b>	<b>100.0</b>						

Relation of Age to Length of Time Required  
to Attain Experience

No. of Weeks Required to Obtain Age Attain Exp.	Average	No. of Weeks Required to Obtain Age Attain Exp.	Average
6 30	5	8 25	5
7 31	6	9 27	7
8 32	7	10 30	9
9 33	8	11 31	10
10 34	9	12 32	11
11 35	10	13 33	12
12 36	11	14 34	13
13 37	12	15 35	14
14 38	13	16 36	15
15 39	14	17 37	16
16 40	15	18 38	17
17 41	16	19 39	18
18 42	17	20 40	19
19 43	18	21 41	20
20 44	19	22 42	21
21 45	20	23 43	22
22 46	21	24 44	23
23 47	22	25 45	24
24 48	23	26 46	25
25 49	24	27 47	26
26 50	25	28 48	27
27 51	26	29 49	28
28 52	27	30 50	29
29 53	28	31 51	30
30 54	29	32 52	31
31 55	30	33 53	32
32 56	31	34 54	33
33 57	32	35 55	34
34 58	33	36 56	35
35 59	34	37 57	36
36 60	35	38 58	37
37 61	36	39 59	38
38 62	37	40 60	39
39 63	38	41 61	40
40 64	39	42 62	41
41 65	40	43 63	42
42 66	41	44 64	43
43 67	42	45 65	44
44 68	43	46 66	45
45 69	44	47 67	46
46 70	45	48 68	47
47 71	46	49 69	48
48 72	47	50 70	49
49 73	48	51 71	50
50 74	49	52 72	51
51 75	50	53 73	52
52 76	51	54 74	53
53 77	52	55 75	54
54 78	53	56 76	55
55 79	54	57 77	56
56 80	55	58 78	57

1. Age Group 20 & 21 yrs. 2. Age Group 22 - 25 yrs. 3. Age Group 26 - 41 yrs.  
Mean = 22.76      Mean = 24.45      Mean = 33.5  
Pe(Mean) = 3.8      Pe(Mean) = 1.1      Pe(Mean) = 2.7

Dif. 1 & 2 = 2.81      Dif. 2 & 3 = 9.08  
Pe(Dif.) = 3.07      Pe(Dif.) = 2.0  
 $\frac{Pe(Dif.)}{Pe(Mean)} = 2.05$        $\frac{Pe(Dif.)}{Pe(Mean)} = 3.12$

RELATION OF PLACE OF BIRTH TO LENGTH  
OF TIME SPENT IN NEW YORK CITY

Born, Born in the United States

No. of Open.	No. of of the group	No. of Percentage who to attain years.	No. of who to attain years.
10	29.6	3 to 10	3
13	37.2	11 to 20	5
4	11.3	21 to 30	3
2	5.7	31 to 40	2
5	6.6	41 to 50	1
5	6.6	51 to 60	1
Total	80	100.0	9

Born, Born in Europe

No. of Open.	No. of of the group	No. of Percentage who to attain years.	No. of who to attain years.
6	37.5	3 to 10	5
5	31.2	11 to 20	5
2	12.5	21 to 30	7
2	12.5	31 to 40	6
1	6.3	41 to 50	9
1	6.3	51 to 60	9
Total	16	100.0	12

10	12
10	14
10	14
11	17
12	22
14	22
14	31
15	33
15	44
16	56

$$\text{Mean} = 16.8 \\ \text{Per-(Mean)} = 8.00$$

$$\begin{aligned} \text{Diff} &= 4.7 \\ \text{Per-Diff} &= \sqrt{\frac{4.7}{\text{Per-Mean}} + \frac{\text{Per-Mean}}{4.7}} \\ &\approx 2.725 \end{aligned}$$

$$I = \frac{\text{Diff}}{\text{Per-Diff}} = \frac{4.7}{2.725} \approx 1.72$$

Total 700

$$\begin{aligned} \text{Mean} &= 26.4 \\ \text{Per-Mean} &= 1.75 \end{aligned}$$

RELATION OF MARRITAL STATUS TO LENGTH  
OF TIME TO ATTAIN EXPERIENCE

No. of Oprs.	Percent- age of the group	Single		Married		No. of wks to attain expr.	No. of wks to attain expr.	No. of Divorced
		No. of wks. wks. to to attain attain	No. of wks. wks. to to attain attain					
11	31.4	3 to 10	5	6	46.1	3 to 10	5	18
14	40.0	11 to 20	5	5	25.1	11 to 20	5	26
2	5.7	21 to 30	6	3	23.1	21 to 30	5	55
3	9.6	31 to 40	6	-	-	31 to 40	8	
5	9.6	41 to 50	7	1	7.7	41 to 50	9	
8	5.7	51 to 60	6	-	-	51 to 60	10	
			9				14	
TOTAL	35	100.0	10	13	100.0		16	
			10				22	
			11				23	
			12				29	
			13				44	
			14			Total	201	44
			14					68
			15					
			15		Mean = 16.0			
			15		Po-Mean = 2.2			
			16		SD = 11.8			
			16					
			17					
			18		Diff = 4.5		3.9	
			18		Po-Diff = 2.79			
			20					
			28		I = $\frac{Diff}{Po-Diff}$ = 1.61		1.4	
			29					
			31					
			35					
			39					
			41					
			42					
			43					
			54					
			56					
			TOTAL	695				

$$\begin{aligned} M &= 20.0 \\ Po-(M) &= \pm 1.72 \\ SD &= 14.37 \end{aligned}$$

The investigation of nationalities show that almost the entire group was composed of slavic types. The absence of Latin types on this job was explained by the Employment Division who gave us information regarding the discrimination in selecting applicants.

The following information has a bearing on the selection of female employees. There is no routine against hiring Italian, Spanish, Greek or Jewish female applicants but they are not selected except in cases in which individuals of these nationalities are exceptionally qualified.

The Italians are very "clannish" and think the Western Electric Company should provide jobs for their family, relatives and friends and they are quite "peevish" and cause a commotion when they are turned down.

The large Bohemian and Polish population in the immediate vicinity of the works has created a source of labor supply from which the Company can recruit its employees without employing Latin types.

Many of the supervisors are Bohemian and Polish and the employment organization tries to send Bohemian girls to Bohemian supervisors and Polish girls to Polish supervisors because they get along well together.

Approximately sixty thousand female applicants passed through the Employment Division in 1928 and 1929 and only ten thousand were employed. This data indicates that an unlimited selection of female help is available which makes possible the discrimination in selecting applicants.

<u>Nationality (Extraction)</u>		<u>Age</u>	<u>Marital Status</u>
7.7% Group or 31 to 40 Weeks	25.0 Polish 25.0 Bohemian 25.0 Czechoslovakian <u>25.0 Moravian</u> <u>100.0</u>	% Average 23.0 Range - 21 to 27 yrs.  75.0 20 to 24 yrs. 25.0 25 to 29 yrs. <u>100.0</u>	75.0 Single <u>25.0</u> Divorced <u>100.0</u>  % in relation to the entire Group 8.6 Single 50.0 Divorced
7.7% Group or 41 to 50 Weeks	25.0 Polish 25.0 Lithuanian 25.0 Europe <u>25.0 U. S. A.</u> <u>100.0</u>	% Average 28.0 Range - 20 to 38 yrs.  25.0 20 to 24 yrs. 50.0 25 to 29 yrs. 30 to 34 yrs. <u>25.0</u> 35 to 39 yrs. <u>100.0</u>	75.0 Single <u>25.0</u> Married <u>100.0</u>  % in relation to the entire Group 8.6 Single 7.7 Married
5.8% Group or 51 to 60 Weeks	66.7 U. S. A. <u>33.3</u> Europe <u>100.0</u>	% Average 27.3 Range - 20 to 41 yrs.  66.7 20 to 24 yrs. <u>33.3</u> 40 to 45 yrs. <u>100.0</u>	66.7 Single <u>33.3</u> Divorced <u>100.0</u>  % in relation to the entire Group 5.7 Single 50.0 Divorced

RECORD OF DEXTERITY, OBSERVATION AND MEMORY, AGE,  
NATIONALITY, AND MARITAL STATUS IN RELATION TO  
LENGTH OF TIME TO ATTAIN EXPERIENCE ON MICA SPLITTING

16 OPERATORS - DEPT. 6335

<u>Name</u>	<u>I Peg-board</u>	<u>II Peg-board</u>	<u>Observation and Memory</u>	<u>No. of Wks. to attain Experience on Mica</u>	<u>Age</u>	<u>(Extraction) Nationality</u>	<u>Marital Status</u>
	136	8.0	11	15	21	Jugo Slavia	S.
	136	6.8	11	16	21	Poland	S.
	132	7.8	9	54	20	Europe	S.
	147	7.8	14	31	23	Moravia	S.
	161	6.8	-	3	25	Poland	M.
	133	8.6	10	39	21	Czecho Slovakia	S.
	130	8.6	8	9	21	Poland	S.
	146	8.8	13	5	20	Poland	S.
	147	8.4	14	41	26	U.S.A.	S.
	125	8.7	10	43	20	Europe	S.
	134	9.0	11	35	21	Bohemia	D.
	127	7.6	10	42	28	Poland	S.
	139	6.3	14	8	20	Poland	S.
	136	8.2	12	9	21	Lithunia	S.
	140	L. R. 7.4 8.1	11	6	25	Austria-Hungary	S.
	124	8.7	8	8	22	Poland	M.

Note: Pegboard Test No. 1 = Number of pegs placed in board in 9 $\frac{1}{2}$ -minute intervals.

Pegboard Test No. 2 = Number of minutes required to place 300 pegs.

Observation & Memory = Perfect score is 14.

LEL-ER

	<u>Name</u>	<u>Age</u>	<u>Place of Birth</u>	<u>Father's Place of Birth</u>	<u>Marital Status</u>	<u>No. of Wks. Required to attain Experience</u>
35.		26	U.S.A.	U.S.A.	Single	41
36.		20	Chicago	Europe	Single	43
37.		21	Bohemia	Bohemia	Divorced	33
38.		28	Green Bay, Wisc.	Poland	Single	42
39.		25	Poland	Poland	Married	9
40.		22	Chicago	Poland	Married	29
41.		30	Chicago	Germany	Single	14
42.		23	Poland	Poland	Single	14
43.		22	Chicago	Poland	Single	10
44.		21	"	"	"	5
45.		20	Poland	Poland	"	8
46.		21	Lithuania	Lithuania	"	9
47.		24	Chicago	Europe	Married	14
48.		23	Minnesota	Hungary	Single	6
49.		28	Chicago	Germany	"	10
50.		22	Chicago	Poland	"	18
51.		31	Lithuania	Lithuania	"	14
52.		22	Pennsyl- vania	Poland	Married	8

[ ] LEL-ER

INEXPERIENCED MICA OPERATORS.

<u>Name</u>	<u>Age</u>	<u>Place of Birth</u>	<u>Father's Place of Birth</u>	<u>Marital Status</u>	<u>No.of Wks. Required to attain Experience</u>
1.	24	Chicago	Bohemia	Single	15
2.	26	Poland	Poland	Single	17
3.	23	Canada	Austria	Single	18
4.	25	Chicago	Poland	Single	11
5.	21	Joliet	Jugo-Slavia	Single	15
6.	40	Brooklyn, N. Y.	Germany	Widow	26
7.	21	Cicero	Poland	Single	16
8.	24	Austria	Austria	Single	12
9.	27	Hungary	Austria- Hungary	Married	5
10.	25	Chicago	No record	Married	16
11.	20	Chicago	Europe	Single	54
12.	21	Chicago	Poland	Single	16
13.	22	Chicago	Hungary	Single	6
14.	20	N.Dakota	Germany	Single	28
15.	25	Transferred to Kearny. No Rec. No Rec.			10
16.	22	Chicago	Bohemia	Single	12
17.	27	Whiting,Ind.	Poland	Single	35
18.	25	Europe	Poland	Single	7
19.	35	Poland	Poland	Married	5
20.	22	Chicago	Europe	Single	10
21.	23	Moravia	Moravia	Single	31
22.	25	Chicago	Poland	Married	3
23.	41	Cicero	Lithuania	Widow	18
24.	35	Poland	Europe	Married	22
25.	25	Chicago	Poland	Single	20
26.	21	Chicago	Czecho- Slovakia	Single	39
27.	38	Lithuania	Lithuania	Married	44
28.	41	Chicago	Massachusetts U.S.A.	Divorced	55
29.	25	U.S.A.	Poland	Single	29
30.	21	Calumet City	Poland	Single	9
31.	20	Chicago	Poland	Single	5
32.	38	Europe	Russia	Married	22
33.	21	Chicago	Chicago	Single	56
34.	30	Bohemia	Germany	Married	14