

UNCLASSIFIED

MARTIN MARIETTA ENERGY SYSTEMS LIBRARIES



3 4456 0360573 9

ORNL 605  
Progress Report  
5A

HEALTH DIVISION

REPORT FOR THE MONTH  
ENDING NOVEMBER 30, 1949

OAK RIDGE NATIONAL LABORATORY

CENTRAL RESEARCH LIBRARY

CIRCULATION SECTION  
4500N ROOM 175

**LIBRARY LOAN COPY**

DO NOT TRANSFER TO ANOTHER PERSON

If you wish someone else to see this  
report, send in name with report and  
the library will arrange a loan.

UCN-7969 (3 9-77)



OAK RIDGE NATIONAL LABORATORY  
OPERATED BY  
CARBIDE AND CARBON CHEMICALS DIVISION  
UNION CARBIDE AND CARBON CORPORATION



POST OFFICE BOX P  
OAK RIDGE, TENNESSEE

UNCLASSIFIED

UNCLASSIFIED

Report Number ORNL-605  
Copy 5 of 72.  
Series A.

This document consists of  
20 pages.

Contract No. W-7405 eng 26

HEALTH DIVISION

REPORT FOR THE MONTH ENDING NOVEMBER 30, 1949

J. S. Felton, M. D.

DATE ISSUED APR 14 1950

OAK RIDGE NATIONAL LABORATORY  
Operated by  
CARBIDE AND CARBON CHEMICALS DIVISION  
Union Carbide and Carbon Corporation  
Post Office Box P  
Oak Ridge, Tennessee

UNCLASSIFIED



3 4456 0360573 9

Oak Ridge National Laboratory Internal Distribution as Follows:

1. G. T. Felbeck (C & CCC, N.Y., N.Y.)
- 2-3 706-A Library
4. 707-B Library
- 5-6 Training School Library
7. Health Physics Library
- 8-9 Biology Library
- 10-13 Central Files
14. E. J. Murphy
15. J. A. Swartout
16. A. M. Weinberg
17. J. S. Felton, M.D.
18. A. Hollaender
19. K. Z. Morgan
20. J. H. Frye, Jr.
21. Forrest Western
22. L. B. Farabee
23. C. E. Larson
24. D. W. Cardwell
25. J. H. Gillette

Oak Ridge National Laboratory External Distribution as Follows:

26. A. H. Holland, M. D. (AEC, Townsite)
27. A. G. Kammer, M. D., Medical Director, C & CCC, South Charleston, W. Va.
28. Robert J. Hasterlik, M.D., Medical Director, Argonne National Laboratory.
- 29-35 Argonne National Laboratory
- 36-39 Brookhaven National Laboratory
- 40-43 University of California Radiation Laboratory
- 44-45 New York Directed Operations
- 46-47 Hanford Engineer Works
- 48-49 General Electric, Schenectady
50. Patent Branch, Washington
- 51-65 Technical Information Division
66. Charles L. Dunham, Jr., M.D., Ass't Chief, Medical Branch, Div. of Biology  
& Medicine, AEC, Washington
- 67-68 AEC, Washington
69. T. L. Shipman, M.D., Medical Director, Los Alamos
- 70-72. Los Alamos

DISTRIBUTION OF EFFORT FOR THE MONTH OF NOVEMBER 1949

	<u>Monthly</u>	<u>Weekly</u>	<u>Hourly</u>
<u>Personnel</u>			
Physicians	3	0	0
Industrial Hygiene Engineer	1	0	0
Industrial Designer	1	0	0
Nurses	1	5	0
Medical Technicians	0	3	0
Office Personnel	1	8	0
Custodial Personnel	0	0	2
	<u>7</u>	<u>16</u>	<u>2</u>

On loan to Industrial Relations Div.

1

Number of technical personnel added: 0

Number of technical personnel terminated: 0

ALLOCATION OF TIME

<u>Physicians</u>			
Administration	1/3	0	0
Physical Examination	1 2/3	0	0
Dispensary Service	1	0	0
<u>Industrial Designer</u>	1	0	0
<u>Industrial Hygiene Engineer</u>	1	0	0
<u>Nurses</u>			
Supervision	1/2	0	0
Dispensary Shift Nursing	1/2	5	0
<u>Medical Technicians</u>			
General Laboratory	0	1	0
Blood Studies	0	1/2	0
Urinalysis	0	1/2	0
X-ray	0	1	0
<u>Office Personnel</u>	1	8	0
<u>Custodial Personnel</u>	0	0	2
	<u>7</u>	<u>16</u>	<u>2</u>

STATISTICAL SUMMARY

Severity Rate .....	2.8 days lost per absence
Disability Rate .....	12.6 days lost per 1000 days scheduled
Frequency Rate .....	4.9 absences per 1000 days scheduled
Number of Patients .....	1110
Number of Visits .....	2631
Number of Procedures .....	3217
Number of Employees at Laboratory .....	2024
Percent of Employees Visiting Dispensary .....	52.7
Number of Visits per Employee .....	1.3
Number of Illness Absences per Employee .....	0.1
Ratio of Occupational to Non-occupational Procedures .....	1 : 1.2
Ratio of Non-occupational to Occupational Injuries, first visit .....	1 : 2.3
Ratio of Non-occupational to Occupational Injuries, all visits .....	1 : 3.3
Ratio of Occupational to Non-occupational Illnesses, first visit .....	*
Ratio of Occupational to Non-occupational Illnesses, all visits .....	*
Ratio of Occupational to Non-occupational Absences .....	1 : 68
Ratio of Occupational to Non-occupational Days Lost .....	1 : 14.3

\*Ratios are not given since there were no occupational illnesses for the month of November.

PROCEDURES ACCOMPLISHED FOR THE MONTH OF NOVEMBER 1949

	<u>No. of Procedures</u>
Non-occupational injury	68
"          "          , revisit	117
Non-occupational illness	818
"          "          , revisit	299
Occupational injury or exposure, chemical	8
"          "          "          "          "          , revisit	15
Occupational injury or exposure, chemical, a.o.q.*	4
"          "          "          "          "          , revisit	11
Occupational injury or exposure, n.o.c.**	137
"          "          "          "          "          , revisit	413
Occupational injury, n.o.c.**, a.o.q.*	1
"          "          "          "          "          , revisit	0
Occupational injury or exposure, radiation	4
"          "          "          "          "          , revisit	6
Occupational injury or exposure, radiation, a.o.q.*	2
"          "          "          "          "          , revisit	2
Occupational illness, n.o.c.**	0
"          "          "          , revisit	0
Absence due to illness or injury, non-occupational	204
Absence due to illness or injury, occupational	3
Physical examination, industrial hygiene	45
Physical examination, pre-placement	28
Physical examination, rehire	13
Physical examination, periodic health	9
Physical examination, job transfer	1
Physical examination, termination	11
Physical examination, food handler	0
Physical examination, other	7
Audiogram	71
Blood donation	16
Clinical laboratory procedure <sup>‡</sup>	236
Electrocardiogram	65
Field clinical laboratory procedure	0

\*a.o.q. - alleged or questionable

\*\*n.o.c. - not otherwise classified

‡ see next page

		<u>No. of Procedures</u>
Occupational vision section procedures:		
Spectacles issued, plano	21	
Spectacles ordered, prescription	10	
Spectacles issued, prescription	16	
Orthorater examination	67	
Orthorater examination, field	0	
Partial replacement	10	
Adjustment or repair	18	
Advisory service	2	
Total		144
X-ray examination:		
X-ray examination, non-occupational condition	41	
X-ray examination, occupational condition	93	
Total		134
Special study interview		24
Psychodiagnostic test		15
Consultation, non-occupational condition		128
Consultation, occupational condition		4
Consultation, without patient, non-occupational		12
Consultation, without patient, occupational		1
Home visit		0
Pre-marital serodiagnostic test		1
Immunization		117
Diagnostic procedure for an outside physician		6
GRAND TOTAL		3217

† The figure on page 5 represents the number of clinical laboratory visits. More than one laboratory procedure may be performed in one visit. The following is a breakdown of the procedures performed:

Basal Metabolism	5
Blood Chlorides	1
Blood Glucose	8
Bromsulphalein	1
Complete Blood Count	135
Feces - Parasitological	1
Gastric Analysis	2
Kahn	60
Malarial Parasites	1
Red Blood Count and Hemoglobin	15
Rh Factor	37
Sedimentation Rate	5
Sperm Count	2
Typing - Blood	37
Urinalysis	177
Vital Capacity	36
White Blood Count and Differential	34
Total	557

DISPOSITION FOLLOWING DISPENSARY VISITS

Return to regular work	2625
Return to modified or part-time work	436
Remain off work	75
Granted leave	0
Died in plant	0
New employee, rejected	1
New employee, accepted conditionally	1
New employee, accepted	39
Sent to hospital or physician's office	40
AGGREGATE	3217

PERSONNEL ATTENDING PATIENTS

First Aid Attendant	0
First Aid Attendant and Nurse	0
First Aid Attendant, Nurse and Doctor	0
Nurse	1777
Nurse and Doctor	151
Doctor	575
Doctor and First Aid Attendant	1
Technician	687
Psychologist	26
AGGREGATE	3217

TIME LOST DUE TO ILLNESS ABSENCE

	<u>No. of Absences</u>	<u>No. of Days Lost</u>
Less than 1 day	26	0
1 day	106	106
2 days	27	54
3 days	6	18
4 days	7	28
5 days	4	20
6 days	3	18
7 days	4	28
8 days	5	40
9 days	2	18
10 days	5	50
11 days	1	11
13 days	1	13
14 days	2	28
15 days	1	15
17 days	2	34
18 days	1	18
19 days	1	19
20 days	2	40
22 days	1	22
AGGREGATE	207	580

NUMBER OF PROCEDURES BY GENERAL DIAGNOSIS GROUPS

	<u>Number of Procedures</u>	
Illnesses:		
Allergy	41	
Blood abnormality	1	
Cardio-vascular disease	5	
Dental disorder	9	
Dermatitis	68	
Endocrine disorder	17	
Eye and ear disorder	34	
Gastro-intestinal disease	134	
Genito-urinary disease	22	
Hernia	2	
Infections and parasitic disease	95	
Menstrual disease	37	
Nervous and mental state, neurologic disorder	55	
New growth	31	
Orthopedic disorder	81	
Pain and headache	88	
Respiratory disease	607	
Tuberculosis	0	
Miscellaneous	67	
Aggregate		1394
Injuries:		
Injuries	768	
Injuries, potential	4	
Aggregate		772
Operative procedure		35
Total		2201
Special services not involving diagnosis		1016
GRAND TOTAL		3217

November 30, 1949

ABSENCE AND TIME LOST BY GENERAL DIAGNOSIS GROUPS

	<u>No. of Absences</u>	<u>Days Lost</u>
Illnesses:		
Allergy	2	12
Blood abnormality	0	0
Cardio-vascular disease	0	0
Dental disorder	0	0
Dermatitis	5	25
Endocrine disorder	0	0
Eye and ear disorder	0	0
Gastro-intestinal disease	36	74
Genito-urinary disease	10	19
Hernia	0	0
Infections and parasitic disease	7	27
Menstrual disease	16	15
Nervous and mental state, neurologic disorder	4	20
New growth	3	49
Orthopedic disorder	9	26
Pain and headache	7	5
Respiratory disease	87	193
Tuberculosis	0	0
Miscellaneous	1	1
Injuries:		
Injuries, non-occupational	7	36
Injuries, occupational	1	1
Operative procedures	12	77
Total	207	580

NUMBER OF VISITS BY PERSONAL, OCCUPATIONAL AND GROUP CHARACTERISTICS

	<u>No. of Visits</u>	<u>No. of Employees</u>	<u>Average</u>
TOTAL	2561	2024	1.3
<u>SEX</u>			
Female	438	387	1.1
Male	2123	1637	1.3
<u>OCCUPATION</u>			
Life scientist	23	51	0.5
Physical scientist	287	269	1.1
Engineer	185	184	1.0
Technical assistant	356	245	1.5
Administrative and managerial personnel	138	137	1.0
Clerical personnel	359	345	1.0
Laborer	76	71	1.1
Maintenance personnel	123	94	1.3
Protective personnel	264	156	1.7
Craftsman	584	344	1.7
Chemical operator	113	68	1.7
Equipment operator	53	60	0.9
<u>RACE</u>			
Colored	100	119	0.8
White	2461	1905	1.3
<u>MARITAL STATUS</u>			
Married	2065	1588	1.3
Single	437	392	1.1
Divorced	32	20	1.6
Widowed	27	24	1.1
<u>HEALTH STATUS*</u>			
H-1	629	520	1.2
H-2	1598	1264	1.3
H-3	334	240	1.4

\*H-1 Physically qualified for any position.

H-2 Physically qualified for any position, but has minor defects.

H-3 Physically qualified for special employment only, with restrictions.

	<u>No. of Visits</u>	<u>No. of Employees</u>	<u>Average</u>
<u>DIVISION</u>			
Operations	97	76	1.3
Physics	58	67	0.9
Chemistry	260	212	1.2
Technical	260	176	1.5
Biology	73	104	0.7
Metallurgy	36	46	0.8
Training Program	15	8	1.9
Graduate Training Program	0	0	
Health Physics	147	115	1.3
Engineering and Maintenance	926	663	1.4
Industrial Relations	219	175	1.3
Health	12	24	0.5
General Office	117	135	0.9
Security	232	151	1.5
Directors	85	57	1.5
Wage Standards	3	3	1.0
Mathmatics Panel	21	12	1.8
<u>AGE GROUP</u>			
18 to 19 years	6	6	1.0
20 to 29 years	940	739	1.3
30 to 39 years	987	764	1.3
40 to 49 years	417	360	1.2
50 to 59 years	180	137	1.3
60 to 65 years	31	18	1.7
<u>SHIFT</u>			
Straight days	1976	1723	1.1
Rotating shifts	557	277	2.0
Straight shift	28	24	1.2
<u>PAYROLL</u>			
Hourly	1191	778	1.5
Weekly	625	532	1.2
Monthly	745	714	1.0

TIME LOST BY PERSONAL, OCCUPATIONAL AND GROUP CHARACTERISTICS

	<u>Days Lost</u>	<u>Scheduled Days</u>	<u>Percent Time Lost</u>
TOTAL	580	42504	1.4
<u>SEX</u>			
Female	192	8127	2.4
Male	388	34377	1.1
<u>OCCUPATION</u>			
Life scientist	0	1071	0.0
Physical scientist	29	5649	0.5
Engineer	48	3864	1.2
Technical assistant	112	5145	2.2
Administrative and managerial personnel	23	2877	0.8
Clerical personnel	159	7245	2.2
Laborer	10	1491	0.7
Maintenance personnel	20	1974	1.0
Protective personnel	53	3276	1.6
Craftsman	103	7224	1.4
Chemical operator	6	1428	0.4
Equipment operator	17	1260	1.3
<u>RACE</u>			
Colored	36	2499	1.4
White	544	40005	1.4
<u>MARITAL STATUS</u>			
Married	461	33348	1.4
Single	85	8232	1.0
Divorced	19	420	4.5
Widowed	15	504	3.0
<u>HEALTH STATUS*</u>			
H-1	124	10920	1.1
H-2	299	26544	1.1
H-3	157	5040	3.1

\*H-1 Physically qualified for any position.

H-2 Physically qualified for any position, but has minor defects.

H-3 Physically qualified for special employment only, with restrictions.

	<u>Days</u> <u>Lost</u>	<u>Scheduled</u> <u>Days</u>	<u>Percent</u> <u>Time Lost</u>
<u>DIVISION</u>			
Operations	3	1596	0.2
Physics	14	1407	1.0
Chemistry	64	4452	1.4
Technical	66	3696	1.8
Biology	4	2184	0.2
Metallurgy	14	966	1.4
Training Program	0	168	0.0
Graduate Training Program	0	0	
Health Physics	38	2415	1.6
Engineering and Maintenance	198	13923	1.4
Industrial Relations	28	3676	0.8
Health	1	504	0.2
General Office	42	2835	1.5
Security	69	3171	2.2
Directors	39	1197	3.3
Wage Standards	0	63	0.0
Mathematics Panel	0	252	0.0
<u>AGE GROUP</u>			
18 to 19 years	0	126	0.0
20 to 29 years	182	15519	1.2
30 to 39 years	248	16044	1.5
40 to 49 years	83	7650	1.1
50 to 59 years	67	2877	2.3
60 to 65 years	0	378	0.0
<u>SHIFT</u>			
Straight days	504	36183	1.4
Rotating shifts	70	5817	1.2
Straight shift	6	504	1.2
<u>PAYROLL</u>			
Hourly	226	16338	1.4
Weekly	232	11172	2.1
Monthly	122	14994	0.8

EMPLOYEES WITH ONE OR MORE ILLNESS ABSENCE BY PERSONAL, OCCUPATIONAL AND  
GROUP CHARACTERISTICS

	<u>Absentees</u>	<u>No. of Employees</u>	<u>Percent Absentees</u>
TOTAL	181	2024	8.9
<u>SEX</u>			
Female	78	387	20.2
Male	103	1637	6.3
<u>OCCUPATION</u>			
Life scientist	1	51	2.0
Physical scientist	10	269	3.7
Engineer	20	184	10.9
Technical assistant	45	245	18.4
Administrative and managerial personnel	5	137	3.6
Clerical personnel	59	345	17.1
Laborer	4	71	5.6
Maintenance personnel	3	94	3.2
Protective personnel	13	156	8.3
Craftsman	17	344	4.9
Chemical operator	1	68	1.5
Equipment operator	3	60	5.0
<u>RACE</u>			
Colored	8	119	6.7
White	173	1905	9.1
<u>MARITAL STATUS</u>			
Married	124	1588	7.8
Single	46	392	11.7
Divorced	6	20	30.0
Widowed	5	24	20.8
<u>HEALTH STATUS*</u>			
H-1	38	520	7.3
H-2	115	1264	9.1
H-3	28	240	11.7

\*H-1 Physically qualified for any position.

H-2 Physically qualified for any position, but has minor defects.

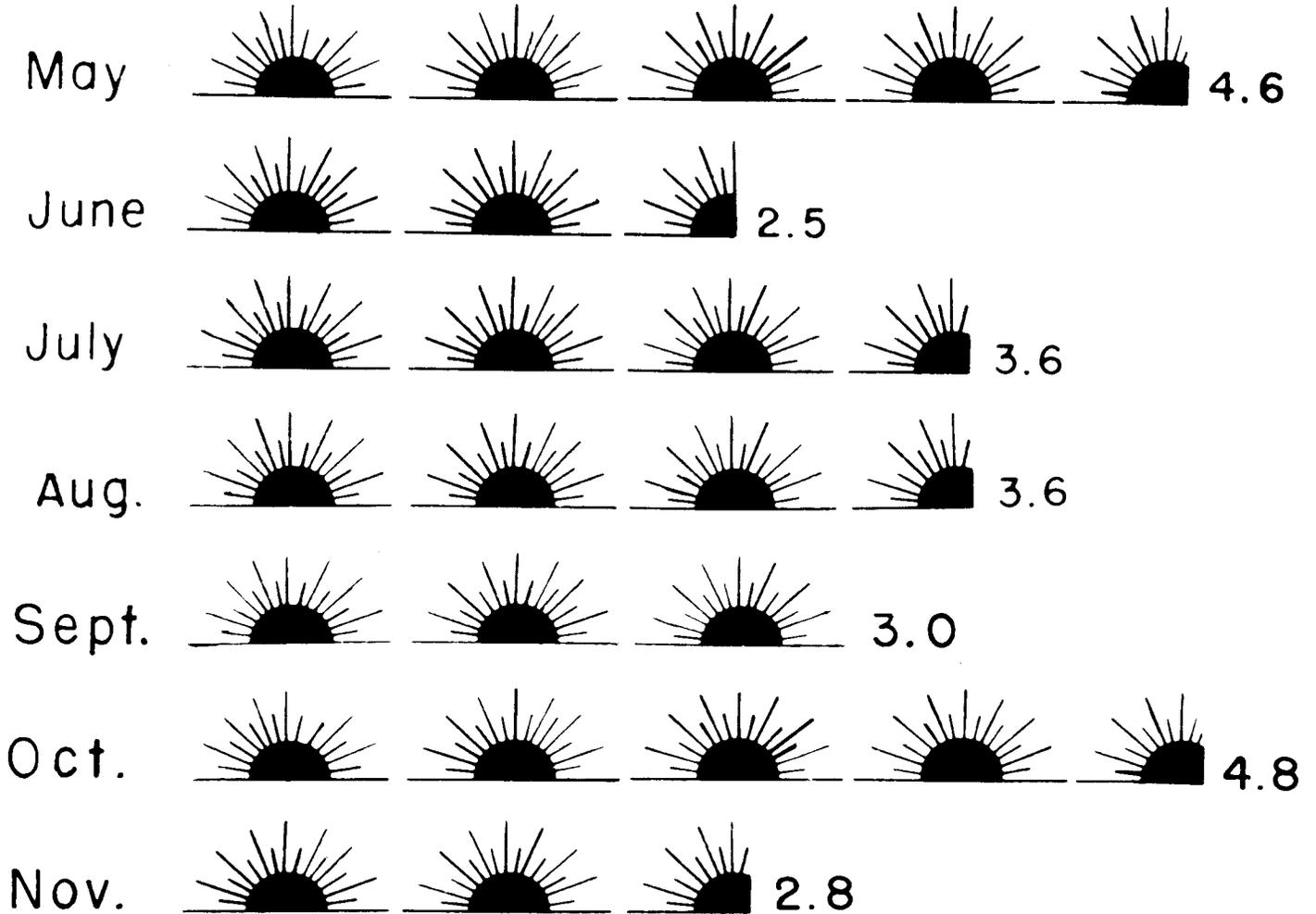
H-3 Physically qualified for special employment only, with restrictions.

	<u>Absentees</u>	<u>No. of Employees</u>	<u>Percent Employees</u>
<u>DIVISION</u>			
Operations	2	76	2.6
Physics	2	67	3.0
Chemistry	33	212	15.6
Technical	18	176	10.2
Biology	3	104	2.9
Metallurgy	5	46	10.9
Training Program	0	8	0.0
Graduate Training Program	0	0	
Health Physics	11	115	9.6
Engineering and Maintenance	52	663	7.8
Industrial Relations	13	175	7.4
Health	2	24	8.3
General Office	10	135	7.4
Security	20	151	13.2
Directors	10	57	17.5
Wage Standards	0	3	0.0
Mathematics Panel	0	3	0.0
<u>AGE GROUP</u>			
18 to 19 years	0	6	0.0
20 to 29 years	87	739	11.8
30 to 39 years	64	764	8.4
40 to 49 years	21	360	5.8
50 to 59 years	9	137	6.6
60 to 65 years	0	18	0.0
<u>SHIFT</u>			
Straight days	155	1723	9.0
Rotating shifts	25	277	9.0
Straight shift	1	24	4.2
<u>PAYROLL</u>			
Hourly	41	778	5.3
Weekly	96	532	18.0
Monthly	44	714	6.2

# SEVERITY RATE

## Days Lost Per Absence

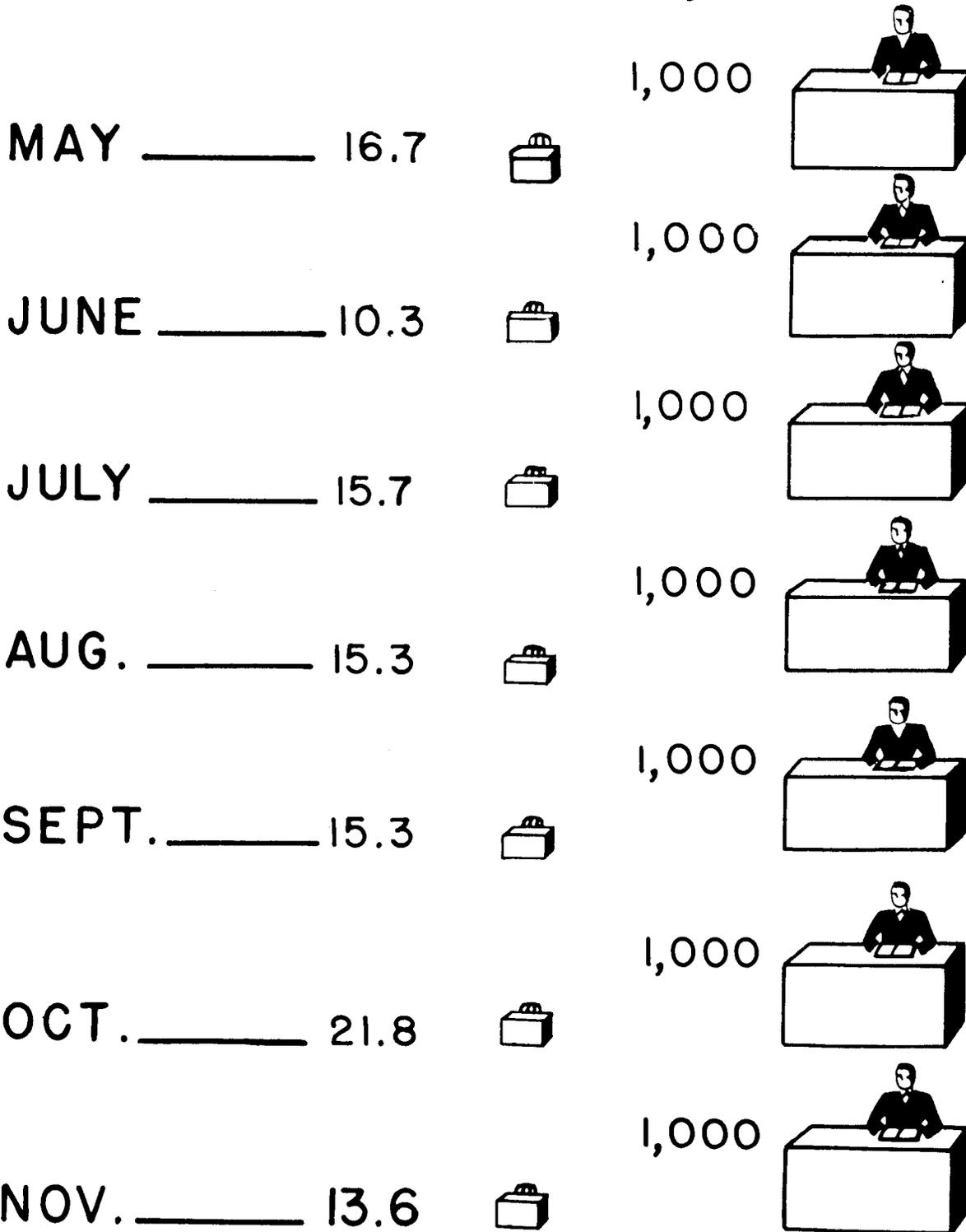
Dwg. 8412  
Unclassified



# DISABILITY RATE

Days Lost Per 1,000 Days Scheduled

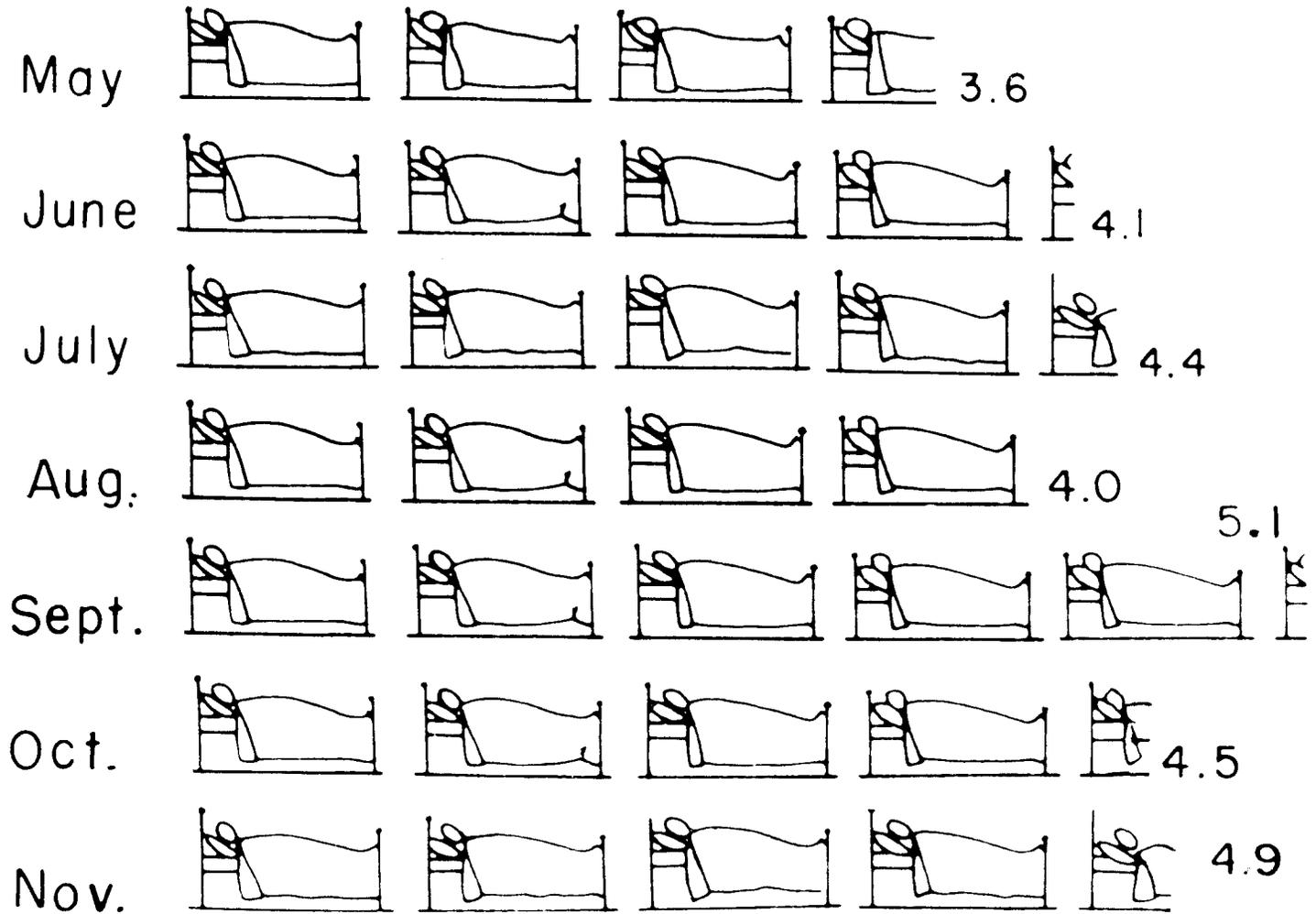
Dwg. 8413  
Unclassified



# FREQUENCY · RATE

Illness Absences Per 1,000 Days Scheduled

Dwg. 8414  
Unclassified



# PERCENT OF EMPLOYEES VISITING DISPENSARY

Dwg. 8415  
Unclassified

