be entitled to participate in the said meeting and vote therein. Copies of General Orders No. 1, 2, and 3, and of Forms 1, 4, and 5, of said Commission may be procured from the undersigned Deputy at the address below stated.

All qualified producers voting by proxy must comply with said General Order No. 3.

Dated this — day of October, 193-.

Acting Deputy District Secretary of the National Bituminous Coal Commission.
Address:

Instructions to Acting Deputy District Secretaries

(Not to be Included in Notice Published in the Newspaper)

A copy of the above notice and of General Orders No. 1, 2, and 3, and the following Forms of the Commission: in duplicate, Form 4, and in triplicate, Forms 1 and 5, shall be mailed to all known producers in the district in accordance with the provisions of said General Order No. 3.

[fol. 880] Form 3

United States Department of the Interior

National Bituminous Coal Commission

Affidavit of Service of Notice of Organization Meeting of District Board

State of —, County of —, ss:

——, being duly sworn under oath, deposes and says that he is the acting deputy district secretary of the National Bituminous Coal Commission for District No.—, as defined by Act of Congress, entitled "Bituminous Coal Conservation Act of 1935"; that he served a copy of the notice hereto attached upon all known bituminous coal producers in said district by depositing a copy of said notice in the United States mail, addressed to each of said producers.

The date or dates upon which said respective notices were mailed, and the names and addresses of said respec-

tive producers are set forth on pages — to —, inclusive, marked "Exhibit A", hereto attached, and by reference made a part hereof.
———— (Seal.)
Sworn and subscribed before me this — day of ——, 193
(Title of officer administering oath.)
Exhibit A
Date Notice Mailed Name of Producer Address to Which Mailed
[fol. 881] Form 4
United States Department of the Interior
National Bituminous Coal Commission, Washington, D. C.
Proxy for Organization Meeting of District Boards
State of, County of, ss:
The undersigned, a coal producer in District No , as defined by the Bituminous Coal Conservation Act of 1935, having become a qualified producer on the day of , 1935, in conformity with General Order No. 3 of the National Bituminous Coal Commission, does hereby make, constitute, and appoint his, her, or its true and lawful proxy and attorney, to attend the organization meeting of the bituminous coal producers of the said district, to be held at o'clock, . M., on the day of , 1935, and any adjournment or adjournments of the said meeting, and there to cast any and all votes the undersigned could or would cast, if personally present, in creating the district board and voting upon any and all matters necessary thereto and properly coming before the said meeting; hereby ratifying and confirming any

conformity herewith. In witness whereof the undersigned has caused these
presents to be duly executed this day of,
193 (Seal.)
(Seai.)
(Note.—The above proxy must be signed and acknowledged before an officer qualified to administer an oath. When in behalf of a partnership it must be signed and acknowledged by a partner thereof, and when in behalf of a corporation, by the president, vice president, or secretary thereof. A form of acknowledgment conformable to the laws of the state in which the proxy is executed shall be thereto attached.)
Attention is called to the fact that, if the producer desires to vote by proxy at the organization meeting of the District Board, an executed and acknowledged original of this form must be filed with (actually in the possession of) the acting deputy district secretary at least 48 hours prior to the date and hour fixed for the District Board meeting, pursuant to Paragraph 11 of General Order No. 3.
[fol. 882] Form 5
United States Department of the Interior
United States Department of the Interior National Bituminous Coal Commission, Washington, D. C.
- -
National Bituminous Coal Commission, Washington, D. C.
National Bituminous Coal Commission, Washington, D. C. Affidavit of Tonnage State of,
National Bituminous Coal Commission, Washington, D. C. Affidavit of Tonnage State of, County ofss:, being duly sworn on oath, deposes and says thathe makes this Affidavit of Tonnage pursuant to General Order No. 3 of the National Bituminous Coal Commission, dated the 9th day of October, 1935, and thathe is
National Bituminous Coal Commission, Washington, D. C. Affidavit of Tonnage State of, County ofss:, being duly sworn on oath, deposes and says thathe makes this Affidavit of Tonnage pursuant to General Order No. 3 of the National Bituminous Coal Commission, dated the 9th day of October, 1935, and thathe is
National Bituminous Coal Commission, Washington, D. C. Affidavit of Tonnage State of, County ofss:, being duly sworn on oath, deposes and says thathe makes this Affidavit of Tonnage pursuant to General Order No. 3 of the National Bituminous Coal Commission, dated the 9th day of October, 1935, and thathe is

in Act of Congress, entitled "Bituminous Coal Conservation Act of 1935"; that during the calendar year 1934 said producer actually produced bituminous coal from a mine or mines, owned, leased, or operated by, within (him, her, it) said District, the names of which mine or mines, the respective locations thereof, and the actual number of tons of bituminous coal produced therefrom during said calendar year, being as follows, to wit:

Name of Mine	Location of Mine	1934 Tonnage of Mine
. .		

Affiant hereby certifies that he has mailed to the Commission, at Washington, D. C., in behalf of said producer, an acceptance of the Bituminous Coal Code, duly executed, on Form 1, pursuant to the requirements of General Order No. 3 of the Commission, and that the representations and facts aforesaid are true and correct upon personal (his, her)

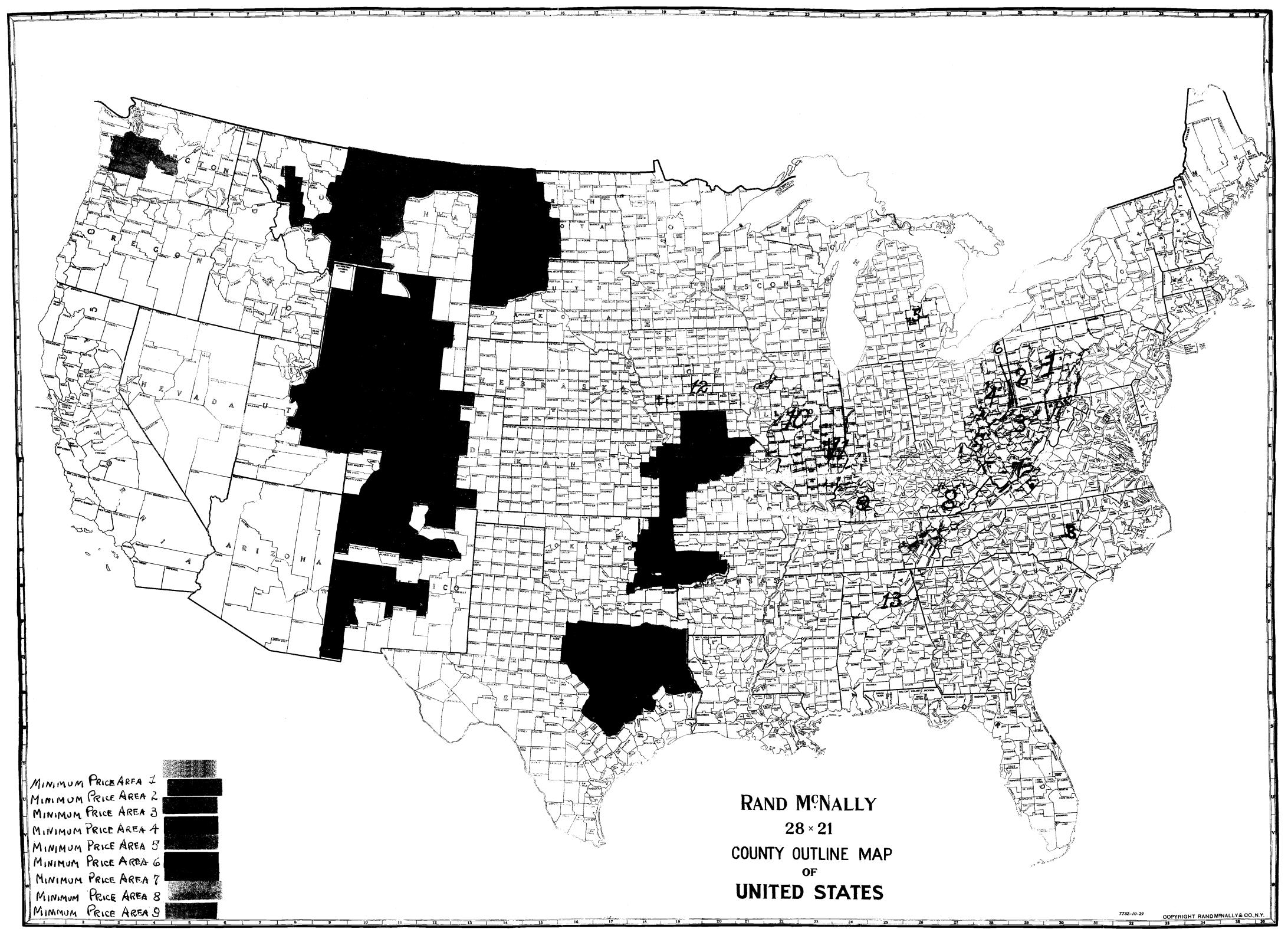
knowledge	thereof.											
				 						 (S_{0})	eal	٠,

(Title of officer administering oath.)

(Note.—The above affidavit, when made in behalf of a partnership, must be made by one of the partners thereof; when in behalf of a corporation it must be made by either the president, vice president, or secretary thereof. This affidavit must be filed, in duplicate, with the acting deputy district secretary not later than 48 hours prior to the date and hour of the organization meeting provided in General Order No. 3 of said Commission. The acting deputy district secretary shall transmit one of such duplicate originals to the Commission at Washington, D. C. and the other to the secretary of the district board, when elected.)

Attention is called to the fact that, pursuant to Paragraph 12 of General Order No. 3, two executed and acknowledged duplicate originals of the above form must be filed with (actually in the possession of) the acting deputy district secretary at least 48 hours prior to the date and hour fixed for the District Board meeting.

(Here follows 1 map, folio 883, 1 photo, folio 884, 1 map folio 885)



Plaintiff's Exhibit No. 19

#1325

No. W.C.R. 953

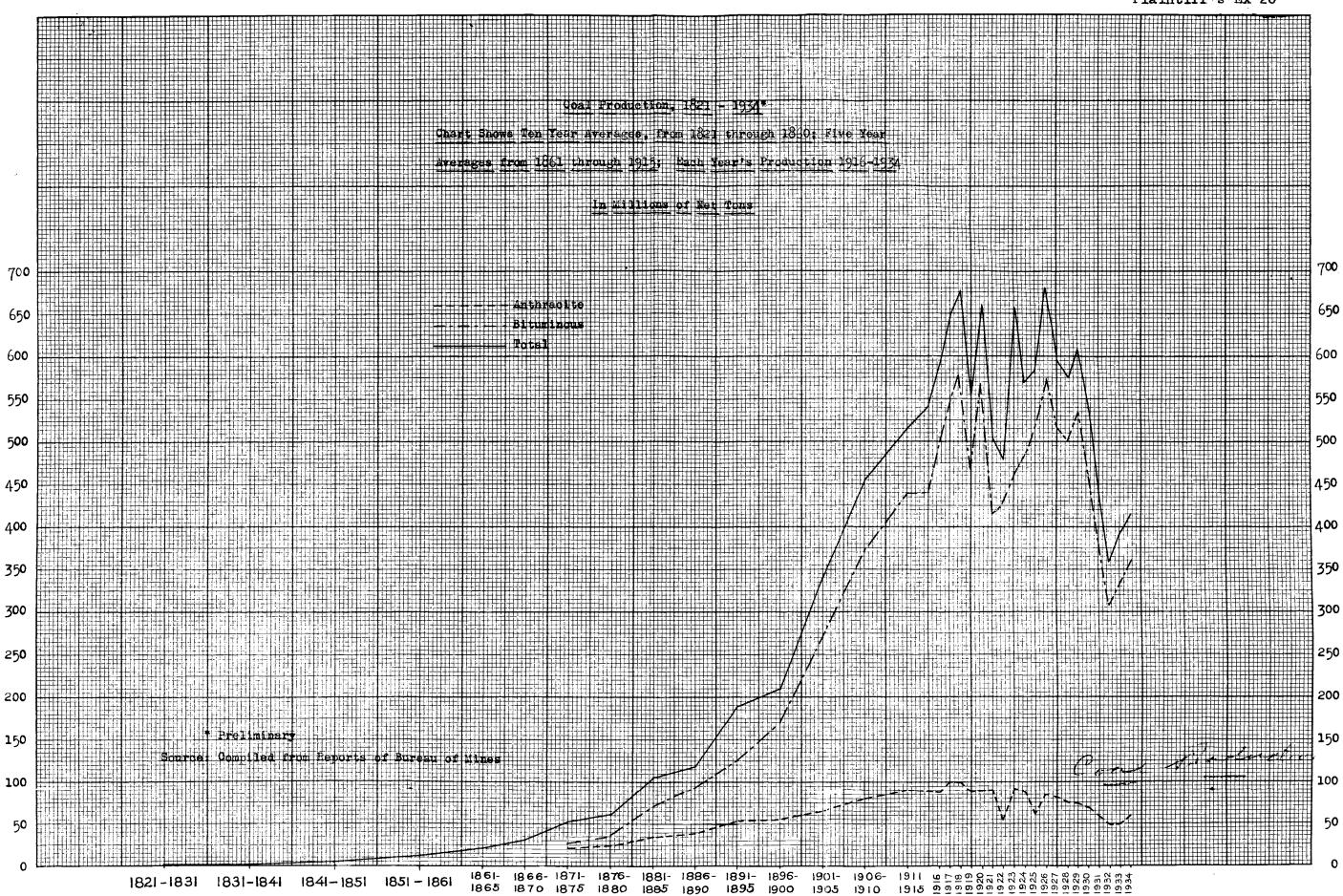
PRODUCTION OF BITUALINOUS COAL, BY DISTRICTS, AS IMPTIMED IN THE RITUALINOUS COAL CONSERVATION ACT OF 1935, 1925 TO 1934 (IN TROUGAIDS OF MET TOWS)

(This table was compiled for the convenience of the Mational Rithmineus Coal Commission and is published, as a service to the industry, with the authorization of the Commission, which is not, however, responsible for its accuracy. The preduction records courseously supplied by mine operators to the U. S. Bureau of Mines have been grouped to correspond as closely as possible with the district boundaries specified in the Rithmineus Coal Conservation Act of 1935. The allocation of mines to sees of the districts may be revised slightly as a result of interpretation by the Commission. The production for Morellian has been included in District 8 instead of in Bistrict 7 in order to follow the previsions of the Act. For a description of the boundaries see Annex to Act - Schedule of Districts.

All figures for 1934 are preliminary and subject to revision upon receipt of final reports from all operators, which will be available Newsmoor 1. The preliminary figures are largely based on reports from the old divisional code authorities, as in the case of Alabama and Southeastern Tennessee. See Weekly Coal Report No. 919, pages 3 and 4.)

Ministra Price Area	192		192		192	•	192	£	192	9	193	0	193	1	19	32	193	3	193 prelimi	
and Producing District	Thousands of not tone	•f	Thousands of not tens	Percent of total	Thousands of not tens	Percent of total	Thousands of not tone	of	Thousands of not tone	of	Thousands of met tons	of	Thousands of net tons	ed	Thousands. of	of	Thousands of not tone	Percent of tetal	Thousands of not tens	of
PRICE AREA 1																			440 4444	1
Estrict 1. Mastern Pennsylvania	55.995	10.17	61,344	10.70	9.49	10.52	51,062	10.20	53,992	10.09	48,560	10.35	42,242	11.06	33.575	10.84	35,487 46,067	10.64	37,794	10.5
Histrict 2. Western Pemaylvania	26,668	16.36	96,319 34,522	16.80	\$2,836 35,723	16.00 6.90	84,071	16.79	93,597	17.50	79,410	16.99	56.370	15.27	43.375 16.773	14.01	46,067	13.51	53.591	10.
istrict 4. Okio	28,074	5.39	27,572	4.86	15,800	3.05	30,898 15,641	7.13	30,210 23,689	5.65 4.43	25,752 22,552	5.51	20,819	5.45 5.34	13,910	5.42	18,969	5.69 5.67	19,114	5. 5.
istrict 5. Hichigan	506		667	.12	757	.15	617	1.44	805	-15	22,552 661	.14	359 4,054	مَدُ. ا	13,910 446		19,589	.12	611	"
istrict 7. Southern Humbered 1		1.13 9.22	6,305	1.10	7,137	10.12	7,212 52,067	10.40	6,335	1.15	5,114	1.09	4,054	1.06	3,645	1.15	4,096	1,23	3,962	1.
istrict S. Southern Bunbered 2	100.419	19.31	112,525	19.62	113,512	21.98	103,429	20.66	57,985 105,557	10.84	51.375 93.245	10.98	\$3,723 76,759	20.09	5,996 63,620	11.94 20.94	41,820 67,964	12.55 20.57	44,138	12.
Istrict 9. West Kentucky	12,187	2.34	112,528 15,464	2.70	21,205	4.10	16,277	3.25	14,437	2.70	10,915	2.7	8,579	2,25	9.500	3.06	7,534	2.35	72,529 7,593	20.
istrict 10. Illinois		12.86	69.367	12.10	46,848	9.05 3.46	55,948	11.17	60.658	11.34	53,731 16,490	11.49	44,303	11.59	9,540 33,474	10.81	37.413	11.21	10,505	l ii.
istrict 12. Ioun	21,225	91	23,186	-50	17,996 2,950	3.40 -77	16,378	3.27	18,344 4,281	3-43	16,490	3-53	14,295	3-74	13,324	4.30	13.761	4,13	14,820	4.0
Total, Price Area 1		87.66	506,500	88,42	151,877	87.25	437,324	57.3k	469,850	57.83	\$11,698	86.05	337.393	85.25	272,540	1.25	296,622	- 96	3.45	
PRICE AREA 2							13/13/21	1100	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	- 3,032	1-1,0,0	33.07	2016905		515,500		230,022	66,91	319,50	59.2
istrict 13. Swathenstern 🏒	21,276	4.09	22,352	3.90	21,035	4.06	18,899	3-77	19,229	3-59	16,655	3-57	12,998	3,40	8,705	2.51	9.770	2.93	10,599	2.9
PRICE AREA S	Ì	İ		ļ				l		İ	l	ł		•			7			
strict 14. Arkenses-Oklahoma	1,600	-31	1,973	.*	2,156	.42	2,379	.47	2,525	.47	2,132	.46	1,673	, kie	1,445	.47	1,313	.39	1,388	١.,
PRICE AREA &		1	1	i .]			ł		ł]	1		l			ļ	1]
strict 15. Southwestern	10,173	1.95	10,845	1.89	11,045	2.13	10,506	2.10	11,047	2.07	9,312	1.99	7,712	2.01	7,503	2.42	7,200	2,18	7.392	2.
PRICE AREA 5	l	[j :		ŧ .			l	Į.	1	1	1	l		1	Ĺ	ŀ	İ		i
atrict 16. Northern Celorado		.52	2,949	.51	2,441	.47	2,896	.58	3,194	.60	2.539	.61	2 797	.72	2 504	.52		۱ ـ		
strict 17. Southern Celerade	9,111	1.75	2,949 9,437 1,069	1.65	9,133	1.77	8,615	1.72	8,179	1.53	2,639 6,350	1.36	2.727	1.22	2,548 3,677	1.15	2,405	1.03	2,296 3,574 966	
istrict 15. New Mexico		.20		-19	1,085	.21	1,049	.21	1,171	.22	911	žı	785	.21	637	.21	3,143 605	.18	3,375 566	
Total, Price Area 5	12,867	2.47	13,455	2.35	12,659	2,45	12,560	2,51	12,544	2.35	10,166	2.15	8,157	2.14	6,562	2.21	6,456	1.93	6,438	1.
PRICE AREA 6 Latrict 19. Wyoning							-									1				_
letrict 20. Whah	4.690	1.26	6,512 4,374	1.14	6,754 4,782	1.30 -93	6,572 4,843	1.31	6,705 5,161	1.25	6,088 4,257	1.30	4,994 3,350	1.30	4,171 2,852	1.35	4,013 2,675	1.20	4,749 2,418	1.
Total, Price-Area 6	11,243	2.16	10,556	1.90	11,5%	2,23	11,415	2,25	11,866	2.21	10,345	2,21	8,344	2.15	7,023	2.27	6,688	2.60	6.767	1.0
PRICE AREA 7												-	-		11.	-			-0101	
strict 21. North Dekota and South Dakota	1,339	.20	1,365	.24	1,540	.29	1,664	-33	1,575	•35	1,713	.,5	1,547	.41	1.789	.58	1.41			l .
PRICE AREA S		ŀ			i			"	1 -10//	.,,		٠,٣	1,071	•••	1,107	.50	1,041	-55	1,530	
latrict 22. Montana	3,044	•59	2,798	وبد	3,144	.60	3,324	.66	3,407	.64	.3,022	.65	2,375	.62	2,125	.69	2,152	.65	2,600	Ι.
PRICE AREA 9	1			l			- 10		'' '		'3		-10,10	-	-,12)	••	-,		2,000	-7
strict 23. Eashington		.49	2,587	.45	2,635	.51	2,519	.50	2,521	.47	2,302	وہد	1,846	38	1,592	.51	1,394	.42	1.357	١.,
GRAND TOTAL - AREAS LISTED IN ACT	519,957	99.96	573,261	99.98	517,627	99-97	500,592	99.96	534,868	99.98	467.378	99.96	361,958	99.96	309 584	99.96	333.516	99.96	358,265	99-9
ates not districted	13	·	19 87		32	.01	27	.01	20		26	.01		-						-
LASEN,	- 53	.02	-	.02	32 104	.02	126	.03	101	•02	120	.03	25 106	.01	23 103	.01 .03	19	.01 .03	15 112	
UNITED STATES	520,053	100.00	573.367	100.00	517,763	200,00	500,745	100.00	534,989	100.00	467,526	100.00	362,069	100.00	309,710	200,00	333,631	100.00	358.395	100.0

1 According to the Act, the Minimum Price Area 1 includes that part of Southeastern, district 13, comprising Van Buren, Harren, and McMinn counties in Tesmessee. Freduction, if any, for these counties has been tabulated in Price Area 2. Warren and McMinn counties have not produced coaf for many years, and the ansmal production in Van Buren in recent plans has been less than 10,000 tens.



[fol. 886]

PLAINTIFF'S EXHIBIT 21 Coal Production 1821—1934*

Note.—Figures for anthracite relate to Pennsylvania output only. Bituminous coal includes brown coal and small amounts of anthracite outside of Pennsylvania.

$\begin{array}{cccccccccccccccccccccccccccccccccccc$	37 371		In Thousands of Net Tons							
1831-1840 1,032 722 310 1841-1850 4,535 2,697 1,837 1851-1860 12,513 7,645 4,868 1861-1865 20,538 11,142 9,396 1866-1870 31,706 16,281 15,425 1871-1875 52,179 23,407 28,773 1876-1880 62,261 25,800 36,461 1881-1885 107,291 36,198 71,093 1886-1890 138,398 43,952 94,446 1891-1895 178,822 53,405 125,416 1896-1900 227,123 55,625 171,498 1901-1905 339,357 66,854 272,503 1906-1910 454,555 81,142 373,413 1911-1915 529,189 89,233 439,955 1917 651,402 99,612 551,791 1918 678,212 98,826 579,386 1919 553,952 88,092 465,860 1920 658,2		_	Total	Anthracite	Bituminous					
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	1821-1830		140	66	75					
$\begin{array}{cccccccccccccccccccccccccccccccccccc$			1,032	722	310					
$\begin{array}{cccccccccccccccccccccccccccccccccccc$				2,697	1,837					
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	1851-1860				4,868					
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	1861-1865	• • • • • • • • • • • • • • • • • • • •		11,142	9,396					
$\begin{array}{cccccccccccccccccccccccccccccccccccc$										
$\begin{array}{cccccccccccccccccccccccccccccccccccc$										
1886-1890 138,398 43,952 94,446 1891-1895 178,822 53,405 125,416 1896-1900 227,123 55,625 171,498 1901-1905 339,357 66,854 272,503 1906-1910 454,555 81,142 373,413 1911-1915 529,189 89,233 439,955 1916 590,098 87,578 502,520 1917 651,402 99,612 551,791 1918 678,212 98,826 579,386 1920 658,265 89,598 568,667 1921 506,395 90,473 415,922 1922 476,951 54,683 422,268 1923 657,904 93,339 564,565 1924 571,613 87,927 483,687 1925 581,870 61,817 520,053 1926 657,804 84,437 573,367 1928 576,093 75,348 500,745 1929 608,817 73,828 534,989 1930 536,911 69,385										
$\begin{array}{cccccccccccccccccccccccccccccccccccc$										
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	1886~1890	• • • • • • • • • • • • • • • • • • • •	138,398	43,952	94,446					
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	1891-1895				125,416					
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$			227,123		171,498					
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$										
$\begin{array}{cccccccccccccccccccccccccccccccccccc$										
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	1911–1915		529,189	89,233	439,955					
$\begin{array}{cccccccccccccccccccccccccccccccccccc$										
$\begin{array}{cccccccccccccccccccccccccccccccccccc$										
$\begin{array}{cccccccccccccccccccccccccccccccccccc$										
$\begin{array}{cccccccccccccccccccccccccccccccccccc$,								
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	1920		658,265	89,598	568,667					
1923 657,904 93,339 564,565 1924 571,613 87,927 483,687 1925 581,870 61,817 520,053 1926 657,804 84,437 573,367 1927 597,859 80,096 517,763 1928 576,093 75,348 500,745 1929 608,817 73,828 534,989 1930 536,911 69,385 467,526 1931 441,735 59,646 382,089 1932 359,565 49,855 309,710 1933 383,172 49,541 333,631					415,922					
$\begin{array}{cccccccccccccccccccccccccccccccccccc$			476,951							
1925 581,870 61,817 520,053 1926 657,804 84,437 573,367 1927 597,859 80,096 517,763 1928 576,093 75,348 500,745 1929 608,817 73,828 534,989 1930 536,911 69,385 467,526 1931 441,735 59,646 382,089 1932 359,565 49,855 309,710 1933 383,172 49,541 333,631			657,904	93,339						
$\begin{array}{cccccccccccccccccccccccccccccccccccc$										
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	1925		581,870	61,817	520,053					
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	1926		657,804	84,437	573,367					
$\begin{array}{cccccccccccccccccccccccccccccccccccc$			597,859	80,096	517,763					
1929 608,817 73,828 534,989 1930 536,911 69,385 467,526 1931 441,735 59,646 382,089 1932 359,565 49,855 309,710 1933 383,172 49,541 333,631				75,348	500,745					
1930 536,911 69,385 467,526 1931 441,735 59,646 382,089 1932 359,565 49,855 309,710 1933 383,172 49,541 333,631 333,631			608,817	73,828						
1932 359,565 49,855 309,710 1933 383,172 49,541 333,631	1930		536,911	69,385	467,526					
1932	1931				382,089					
	1932		359,565		309,710					
	1933									
·	1934*		415,780		358,395					

^{*} Preliminary, as of February 23, 1935 report of Bureau of Mines.

Source: Bureau of Mines.

Source: Page 680 of Statistical Abstract, 1934, except final 1933 and preliminary 1934.

(Here follows plaintiff's Exhibits 22 and 23, folios 887 and 888.)

ELECTRICITY PRODUCED, CONSUMPTION OF FUEL, AND CAPACITY OF GENERATORS IN PUBLIC-UTILITY POWER PLANTS

Note.—Data prior to 1919 are totals for central stations and electric railways as reported by Bureau of the Census; thereafter, they are estimated totals for all plants, based on returns from about 3.500 plants in 1919 to about 3,800 in 1933, each producing 10,000 kilowatt-hours or more per month, engaged in public service, including central stations, electric railways, steam railroads generating electricity for traction, and certain other plants. The capacity of plants reporting is about 95 percent of that of all plants

	Produc	tion of ele	etricity	Consu	imption o	of fuel	Consumption— Coal or coal equivalent			
Calendar year	Total	Water power	Fuel power	Coal	Fuel oil	Gas	Total	Per kilowatt- hour		
	kilowatt- hours	Million kilowatt- hours	Million kilowatt- hours	Thou- sand tons 1	Thou- sand barrels ²	Million cubic feet	Thou- sand tons 1	Pounds		
02	17, 572							:		
17		14,606	24, 315	35, 100	11, 050	21, 406	38, 880	3. 2		
20	40	16, 150	27, 405	37, 124	13, 123	24, 702	41, 420	3.0		
1		14, 970	26, 005	31, 585	12, 045	23, 722	35, 240	2. 7		
)		17, 207	30, 447	34, 179	13, 197	27, 172	38, 000	2. 5		
3	1 00-		36, 322	38, 966	14, 684	31, 433	43, 522	2. 4		
4			39, 044	37, 556	16, 630	48, 443	43, 130	2. 2		
5	1 4 0 00		43, 514	40, 222	10, 246	46, 521	44, 780	2. 1 1. 95		
6	73, 791	26, 189	47, 602	41, 311	9, 399	53, 207	45, 856	1. 93		
7	80, 205		50, 330	41, 888	6, 782	62, 919	45, 910 46, 387	1.76		
8	87, 850		53, 154	41, 350	7, 158	77, 326				
)	97, 352		62, 723	44, 937	10, 124	112, 707	52, 574			
) <u></u> <u>-</u>	95, 936	33, 021		42,898	9, 260	120, 230	50, 654	1. 55		
l	-1 91, 729			38, 734		139, 328	47, 134	1		
32	83, 153		49, 055	30, 290		107, 875	36, 600			
33		34, 727	50, 674	30, 575	9, 940	102, 601	37, 163	1.47		

¹ Of 2,000 pounds.

SOURCE: 1902 to 1917, Bureau of the Census; thereafter, Geological Survey, Department of the Interior.

² Of 42 gallons.

Trends in fuel efficiency in the United States, 1917-33.

SOURCE: Bureau of Mines. Above is photostat of charts appearing on page 574 of Minerals Yearbook, 1934.

[fol. 889]

Plaintiff's Exhibit 24

Indicators of the Effect of Fuel Economy on Consumption of Coal per Unit of Performance Since the World War

Tertormance since the world was	Pounds	Reduction (percent)
Steam railroads:		·-
Pounds per 1,000 gross ton-miles freight service:		
Average, 1919-20	170	
Average, 1933	121	28.8
Pounds per passenger-train car-mile:		
Average, 1919–20	18.5	
Average, 1933	15.2	17.8
Electric public-utility power plants:		2
Pounds per kilowatt-hour, 1919	3.2	
Pounds per kilowatt-hour, 1933	$1.\overline{5}$	53.1
Iron and steel—pounds coking coal per ton of pig:1		
1918	3,577	
1933	2.876	19.6
Coke manufacture: Savings of heat values through	-,0.0	20.0
recovery of gas, tar, light oils, and breeze by exten-		
sion of byproduct in place of beehive coking, 1913-		
33, expressed as percent of coal used for all coke in		
1933 ²		19.2
		10.2

¹ Includes only savings through higher yields of merchantable coke per ton of coal charged and lower consumption of coke per ton of iron. Excludes economies through recovery of byproducts, which are treated in next item.

Source: Bureau of Mines.

Source: Page 311 of "Coal", Statistical Appendix to Minerals Yearbook, 1934.

² These byproducts are used in part for boiler fuel, in part for metallurgical purposes, in part for domestic heating and cooking, and to a small extent for automotive fuel.

(Here follow 3 photos, folios 890-892.)

Modern Combustion, Coal Economics and Fuel Fallacies

A popular text-book or manual of the latest developments in fuels and their combustion.

*By*CLARENCE V. BECK

Author of "What Price Heat?"; "The Piped Fuel Bugaboo"; "Comparative Fuel Values of Coal, Oil and Gas"; "Stokers and Their Possibilities."



Published by MID-WEST COAL RETAILER

"The Modern Heating and Merchandising Magazine"
20 West Jackson Blvd.
Chicago, III.

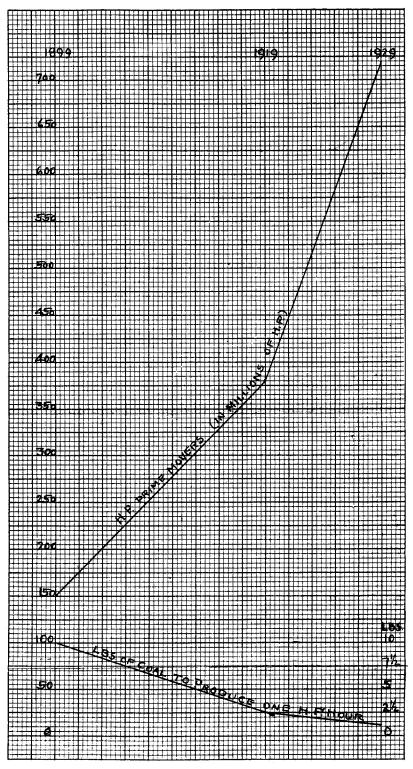
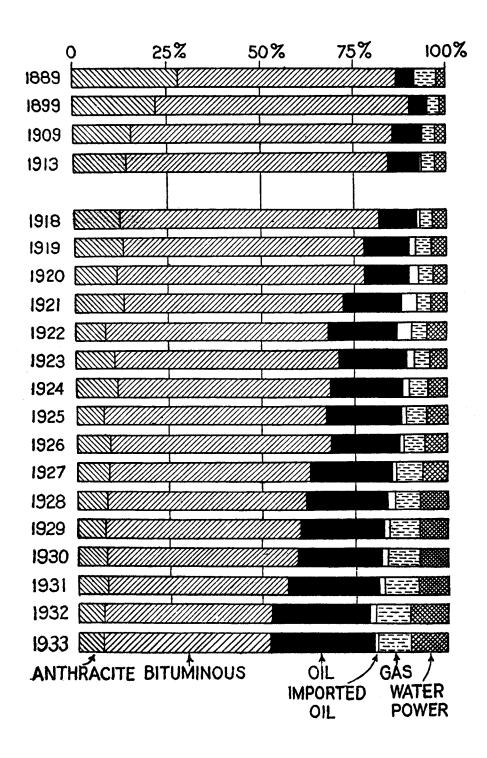


Chart No. 1—Shows Growth in Prime Movers and Decreasing Pounds of Coal Per h.p. Hour

PERCENTAGE OF THE ENERGY SUPPLY OF THE UNITED STATES

DERIVED FROM COAL, OIL, GAS, AND WATER POWER, 1889-1933



SOURCE: Bureau of Mines

[fol. 893]

PLAINTIFF'S EXHIBIT 27

Relative Rate of Growth of Coal and Other Sources of Power

Annual Supply of Energy from Mineral Fuels and Water Power in the United States, 1909-1933

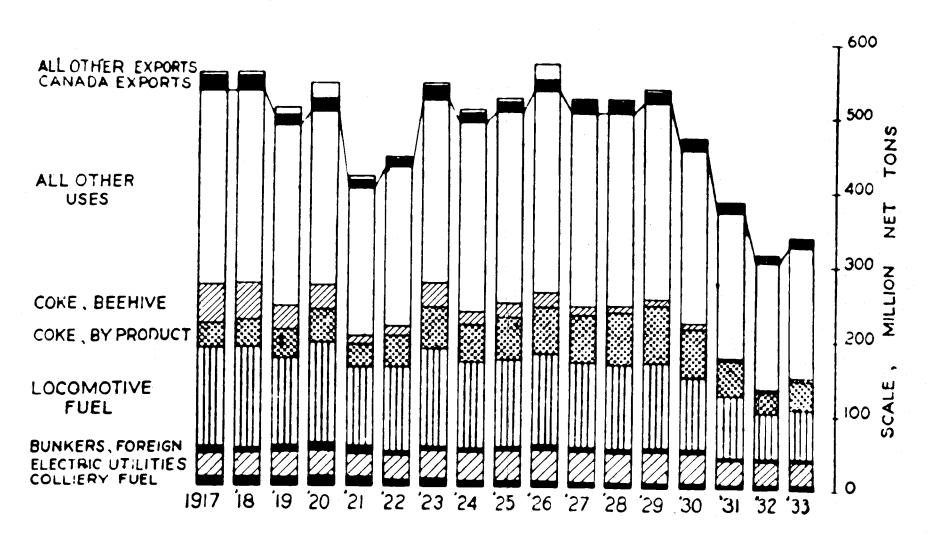
(Figures represent trillions of British thermal units and because of rounding do not always add across exactly. In calculating thermal equivalents the gross British thermal unit values are used. Water power is represented by British thermal units of coal necessary to produce the same amount of power. Figures represent production except those for oil imports and take no account of changes of stock.)

				Domestic oil (total crude, including	Natural gas	Imported oil (total crude, including	Total	Total		Grand total including
		Bituminous	Total	that	(total	that	oil and	mineral	Water	water
Year	Anthracite	coal	coal	refined)	production)	refined)	gas	fuels	power	power
1909	2,205	9,949	12,155	1,099	517	*	1,616	13,771	411	14,182
1913	2,490	12,535	15,025	1,491	626	102	2,219	17,243	588	17,831
1918	2,688	15,180	17,868	2,136	775	226	3,137	21,005	837	21,842
1919	2,396	12,206	14,602	2,270	802	317	3,389	17,991	892	18,883
1920	2,437	14,899	17,336	2,658	858	637	4,153	21,489	971	22,460
1921	2,461	10,897	13,358	2,833	712	752	4,297	17,655	908	18,563
1922	1,487	11,063	12,551	3,345	820	764	4,929	17,480	1,024	18,504
1923	2,539	14,791	17,330	4,394	1,082	492	5,968	23,298	1,136	24,434
1924	2,392	12,672	15,064	4,284	1,227	467	5,978	21,042	1,167	22,209
1925	1,681	13,625	15,306	4,582	1,278	371	6,231	21,537	1,290	22,827
1926	2,297	15,022	17,319	4,625	1,411	362	6,398	23,717	1,492	25,209
1927	2,179	13,565	15,744	5,407	1,553	350	7,310	23,054	1,687	24,741
1928	2,049	13,120	15,169	5,409	1,686	479	7,574	22,743	1,942	24,685
1929	2,008	14,017	16,025	6,044	2,062	474	8,580	24,605	1,929	26,534
1930	1,887	12,249	14,136	5,388	2,089	373	7,850	21,986	1,856	23,842
1931	1,622	10,011	11,633	5,106	1,813	284	7,203	18,836	1,721	20,557
1932	1,356	8,114	9,470	4,711	1,673	268	6,652	16,122	1,900	18,022
1933	1,348	8,741	10,089	5,434	1,672	191	7,297	17,386	1,931	19,317

^{*} Imports negligible before 1913.

Source: Bureau of Mines. Source: Page 623, Table 7 of "Coal in 1930" for data up to 1930, page 284. Table 2 of "Coal", Statistical Appendix to Minerals Yearbook, 1934.

(Here follows Plaintiff's Exhibit 28, folio 894.)



Tonnage of bituminous coal absorbed by the principal branches of consumption, 1917-33.

SOURCE: Bureau of Mines

[fol. 895]

PLAINTIFF'S EXHIBIT 29

Changes in the United States Consumption of Bituminous Coal by Such Classes of Consumers as Report Currently, and by all other consumers 1929–1933, in Thousands of Net Tons

(Information on several other classes of consumers is available for certain years. The items shown in this table are selected because they are available in strictly comparable form for each year.)

			Exp								
V	Colliery	Electric public	Bunkers foreign	Locomo- tive fuel class I	Coke beehive	Coke by-product	All	Total consump-	To Canada and	To All other	Total of consump- tion and
Year	fuel	utilities 1	$trade^2$	$roads^3$	ovens4	ovens4	uses ⁵	${f tion^6}$	Mexico ²	countries ²	exports7
1929	4,663	44,937	4,287	113,894	10,028	76,759	264,987	519,555	14,727	2,702	536,984
1930	3,993	42,898	3,497	98,400	4,284	65,521	236,397	454,990	13,667	2,210	470,867
1931	3,205	38,735	2,195	81,725	1,767	46,846	197,396	371,869	10,647	1,479	383,995
1932	2.781	30,290	1,350	66,498	1,030	30,887	174,081	306,917	8,429	385	315,731
1933	2,858	30,575	1,316	66,198	1,408	38,681	180,712	321,748	8,600	437	330,785

U. S. Geological Survey. Includes a small amount of anthracite.
 Bureau of Foreign and Domestic Commerce.

⁴ U. S. Bureau of Mines.

Source: Bureau of Mines. (Statistical Appendix to Minerals Yearbook, 1934). Source: Table 25, page 311, of chapter on "Coal" in Statistical Appendix to Minerals Yearbook, 1934.

³ Interstate Commerce Commission. Note that consumption in shops, roundhouses, and stations is excluded, also the entire consumption of class II and III roads.

Obtained by subtracting the known items from the total consumption. Includes general manufacturing, domestic, and many miscellaneous uses. From other sources it is known that consumption in steel works and general manufacturing is decreasing and that consumption for domestic uses is increasing.

Production plus imports minus exports, plus or minus changes in consumers' stocks.
 Note that consumption includes the small amount imported.

(Here follows 1 poster, folio 896 and 1 map, folio 897.)

NOTE. -- The figures, except coal equivalent, represent the equivalent of the heating power of the classes of fuel in trillions of British thermal units. Data represent production, except those for oil imports, and take no account of exports, imports, or changes in stocks

		n:						Grand total	Equival bitumi coa	nous
Annual average or year	An- thra- cite	Bi- tumi- nous	Total coal	Do- mestic oil	Nat- ural gas	Imported oil	Water power 1	fuels and water power	Million tons of 2,000 lbs.	Per capita, tons
1871-1875	637	754	1,391	49	•	-	(1)	1,520	58	1.4
1876-1880	718	955	1,673	101	-	-	(1)	1,857	71	1.5
1881-1885	985	1,863	2,848	153	3 24	-	(1)	3,110	119	2.2
1886-1890	1,195	2,474	3,669	198	3 264		(1)	4,221	161	2.7
1891-1895	1,453	3,286	4,739	307	3 166	-	104	5,316	203	3.0
18%-1900	1,513	4,493	6,006	357	3 198	-	129	6,690	255	3.5
1901-1905	1,818	7.140	8,958	615	323	-	209	10,102	386	4.8
1906-1910	2,207	9,783	11,990	1,037	470	1	3 69	13,867	529	5. 9
1911-1915	2,427	11,527	13,954	1,486	619	72	591	16,722	638	6.6
1916-1920	2,523	13,981	16,504	2,176	820	297	851	20,648	7 88	7.6
1921-1925	2,112	12,610	14,722	3,888	1,024	569	1,105	21,308	813	7•3
1926-1930	2,084	13,595	15,679	5.375	1,760	408	1,781	25,002	954	8.0
1928	2,049	13,120	15,169	5,409	1,686	479	1,942	24,685	942	7•9
1929	2,008	14,017	16,025	6,044	2,062	474	1,929	26,534	1,013	8.3
1930	1,887	12,249	14,136	5,388	2,089	373	1,856	23,842	910	7•4
1931	1,622	10,011	11,633	5,106	1,813	284	1,721	20,557	785	6.3
1932	1,356	8,114	9,470	4,711	1,673	268	1,900	18,022	688	5•5
1933 4	1,344	8,592	9,936	5,393	1,591	203	1,931	19,054	727	5. 8

The fuel equivalent for water power is calculated from the reported horsepower of installed water wheels. Prior to 1890 data were unsatisfactory, but estimates are included in the total.

² Calculated at 26,200,000 British thermal units per ton.

³ Based on the amount of coal displaced by gas, as estimated by the gas companies at the time.

⁴ Preliminary.

[fol. 898]

Plaintiff's Exhibit 32

Statement Showing Some Examples of Coal Tonnage Lost to Competing Forms of Fuels or Energy in 31 States

(Compiled to November, 1934)

(Source: National Coal Association)

(Source: National Coal Associ	ation)	
	Displaced by	Actual ton- nage lost (Tons)
Alabama:	v	` ,
Anniston—Anniston Gas Company	Natural Gas Natural Gas Natural Gas Natural Gas	6,000 10,000 100,000 100,000 36,000 20,000
Connecticut:		
Ansonia—Ansonia Manufacturing Company Ansonia—Farrell Birmingham Company Baltic—Baltic Mills Branford—Atlantic Wire Company	Oil Oil Oil Oil	1,000 15,000 15,000 1,500
Bridgeport:		
Bassick Company	Oil Oil Hydro-Elec. Oil Oil Oil Oil	750 200 20,000 1,100 2,300 8,700 10,000
Bristol:		
Bristol Brass Corporation. New Departure Manufacturing Company. Wallace Barnes Company. Chester—Jennings-Russell Manufacturing Co. Collinsville—Collins Company. Cromwell—Pierson, Inc., A. W. Dayville—Assawaugan Company. Deep River—Dennison Bros. Deep River—White Wash Laundry. Derby—Driscoll Wire Company. Danielson—Larkin Reed Corp. Easthampton—Gong Bell Manufacturing Co. Easthampton—Hill Brass Company. East Hartford—Pratt & Whitney Aircraft Co. Elmwood—Abbott Ball Company. Forestville—Barnes Company, Wallace. Forestville—Sessions Clock Company. Glastonbury—Williams Company. J. B. Groton—Electric Boat Company.	Oil Hydro-Elec. Hydro-Elec. Oil Oil Oil Oil Oil Oil Oil Oil Oil Oil	7,500 10,000 6,000 1,500 3,100 2,000 6,000 1,000 1,200 2,000 2,000 2,000 2,500 2,100 5,000 3,000 2,500
Hartford:	O:I	200
American Wire Works Company. Billings & Spencer. Clark, Cuttaway, Harrow Company. Cushman Church. Colt Patent Firearms Company. Fuller Brush Company.	Oil Hydro-Elec. Hydro-Elec. Oil Oil Hydro-Elec.	300 9,000 1,500 1,000 20,000 8,000

I DAMACIAN S EMILIBII II OU	illi ucu	
	Displaced by	Actual ton- nage lost (Tons)
Frissell Fabric Company General Cigar Company Hartford Electric Light Company Hartford Gas Company Hartford Street Railway Company Martin-Parry Corporation Pratt & Whitney Company Puritan & Smith Royal Typewriter Company Skayke Ball Bearing Company Terry Steam Turbine Company Union Drawn Steel Company	Oil Oil Oil Hydro-Elec. Oil Oil Oil	1,500 3,000 140,000 11,000 10,000 400 10,000 400 8,000 500 3,000 5,000
Meriden:		
Guarantee Hard Wheel Company. Handell Company. Manning Bowman & Company. Meriden Electric Light Company. Meriden Street Railway Company. Miller Company.	Hydro-Elec. Hydro-Elec.	900 1,500 5,000 8,000 4,000 7,000
Middletown:		
Middletown Electric Light Company. Middletown Street Railway Company. Russell Manufacturing Company. Tuttle Brick Company. Wesleyan University.	Hydro-Elec. Hydro-Elec. Oil Oil	5,000 4,000 5,000 5,000 2,500
Wilcox Crittendon Company	(Oil	800
Wilcox Lace Company Mt. Carmel—Lyons Manufacturing Company Mystic—Packer Manufacturing Company Naugatuck—Eastern Malleable Iron Company	Hydro-Elec. Oil Oil Oil Oil Hydro-Elec.	3,000 800 1,000 1,250 18,000
New Britain:		
Fafnir Bearing Company Landers, Frary & Clark New Britain Electric Light Company New Britain Machine Company North & Judd Manufacturing Company Stanley Works New Canaan—New Canaan Laundry	Oil	3,000 9,000 10,000 1,200 10,000 3,000 200
New Haven:		
Corsitry, Inc. New Haven Screw Company. Stiles Brick Company. United Smelting & Aluminum Company.	Oil Oil Oil Oil	1,200 1,000 3,000 700
[fol. 900]		
New London:		
New London Electric Light Company New London Street Railway Company Palmer Bros. (also Montville, Conn.) New Milford—Robertson Bleachery & Dye Works Norwalk—American Hat Company.	Hydro-Elec	12,000 7,000 2,500 5,900 3,000

	Displaced by	Actual ton- nage lost (Tons)
Norwich—Atlantic Carton Company	Oil Oil Hydro-Elec. Oil Oil Oil Oil Oil	1,500 1,500 5,000 600 1,200 570 16,000 3,800
Plantsville:		
Atwater Manufacturing Company. Blakeslee Forging Company. Thompson Drop Forging Company. Portland—Brownstone Quarries. Putnam—Powdrell & Alexander. Rainbow—Stevens Paper Co., Edw. Sandy Hook—Curtis & Son, S. Seymour—New Haven Copper Company. Shelton—Driscoll Wire Company. Simsburg—Ensing Bickford Company. Southington—Southington Hardware Company. So. Manchester—Cheney Bros. So. Norwalk—Nash Engineering Company. Springdale—Stamford Rolling Mills Company. Stafford Springs—R. I. Worsted Company. Stamford—Stamford Rolling Mills. Thomaston—Seth Thomas Clock Company. Thomaston—Seth Thomas Clock Company. Torrington—Torrington Electric Light Company. Torrington—Torrington Street Railway Company Unionville—Case Manufacturing Company. Versailles—Hygiene Fibre Company.	Hydro-Elec. Oil Hydro-Elec. Oil Oil Oil Oil Oil Oil Oil Oil Oil Oil	1,500 1,000 500 1,500 250 6,000 1,000 5,000 1,500 7,000 3,000 8,000 9,000 3,800 3,800 3,800 2,400 1,500
Versailles—Inland Paper Board Company	Oil	40,000
Wallingford: Judd Company, H. L Municipal Electric Light Company. N. Y. Insulated Wire Company. Wallace Silver Company, R Wallingford Steel Company.	Hydro-Elec.	3,000 3,000 1,500 12,000 2,500
Waterbury:		
Bristol Company. Lux Cloth Manuscturing Company. Waterbury Clock Company. Waterbury Electric Light Company. Waterbury Paper Company. Waterbury Rolling Mill Company.	Oil Oil	3,100 500 10,000 40,000 1,000 750
WestbrookKrothe Bros	(Hydro-Elec. Oil	750 1,000
[fol. 901]		,
West Haven—Western Electric Company. Winsted—Fitzgerald Manufacturing Company. Winsted—Gilbert Clock Company. Winsted—Morgan Silver Plate Company. Winsted—Strand & Sweet. Windsor—Windsor Company.	Oil Oil Hydro-Elec. Oil Oil Oil	250 1,500 3,000 800 1,500 1,000

•	Displaced by	Actual ton- nage lost (Tons)
Windsor Locks: American Writing Paper Company Cent. Conn. Light & Power Company Montgomery, Geo. M Montgomery Company, J. R	Oil	14,000 2,000 4,000 1,800
Delaware: Dover—Romeo & Company, F New Castle—Delaware Rayon Company Wilmington—National Vulcanized Fibre Co	Oil Oil Oil	300 10,000 18,000
Florida: Fernandina—Florida Phosphate Mines Jacksonville—Logan Coal & Supply Company Pensacola—Pensacola Gas Company	Oil Oil Natural Gas	20,000 20,000 3,000
Georgia: Adairsville—Hood Brick Company, B. M Atco—Goodyear Cleanwater Mills	Natural Gas Hydro-Elec.	1,300 15,000
Atlanta: American Can Company. Atlantic Biltmore Hotel. Atlantic Gas Light Company Atlantic Ice & Coal Company Atlantic & Pacific Bakery Company Atlantic Steel Company. Atlantic Steel Company. Block Candy Company. Chevrolet Motor Company. Citizens & Southern Natl. Bank Building. Emory University. Exposition Cotton Mills. Georgia Baptist Hospital. Georgia Terrace Hotel. National Biscuit Company. Stone Baking Company. U. S. Prison. U. S. Veterans Hospital. Wilson & Company. Cartersville—Thompson-Weiman Company. Cedartown—U. S. Finishing Company. Cedartown—U. S. Finishing Company. Columbus—Eagle Phoenix Mills. Gainesville—Gainesville Cotton Mills. Griffin—Ideal Bakery. Griffin—Ponoma Products Company. La Grange—Calloway Group Mills.	Hydro-Elec. Natural Gas	1,100 3,500 40,000 20,000 500 75,000 3,100 20,000 1,100 1,7500 700 1,100 12,500 1,400 1,100 1,350 350 20,000 10,000 50 800 15,000
[fol. 902]		
McIntyre—Akron Pigment Company McIntyre—Edgar Products Company Macon—Atlantic Ice & Coal Company Macon—Bibb Manufacturing Company Macon—Carling Tile Company Macon—Dempsey Hotel Milledgeville: Georgia State College Oconee Clay Products Company Natural gas company has run a line down from	Natural Gas Hydro-Elec. Natural Gas Natural Gas Natural Gas	350 14,500 15,000 15,000 5,250 1,000 600 3,500
Macon and this will displace coal in the amount of	• • • •	150,000

Thanking Daniel of Con	ucu	Actual ton
	$\begin{array}{c} \textbf{Displaced} \\ \textbf{by} \end{array}$	Actual ton- nage lost (Tons)
Rockmont—Southern States Portland Cement Co.	Natural Gas	38,500
Rome—Atlanta Plow Company	Natural Gas	$\frac{1,200}{1,200}$
Rome—Rome Hosiery Mills	Natural Gas	17,000
Savannah—Savannah Electric Company Savannah—Savannah Sugar Refinery business	Oil Oil	50,000 50,000
Iowa:		
Cedar Rapids:		
Three Minute Cereal Company		15,000
Penick & Ford, Inc		100,000 40,000
Council Bluffs:	••••	40,000
Abraham Lincoln High School	Natural Gas	400
Deaf & Dumb State School	Natural Gas	3,500
Gooch Food Products	Natural Gas	500
Hurd Creamery	Natural Gas	3,750
J. Edmundson Hospital	Natural Gas	3,200
Lainson, Florist	Natural Gas	3,750 $1,500$
Wilcox, Florists	Natural Gas	6,000
Woodward Candy Company	Natural Gas	2,500
Davenport—Kohrs Packing Company Davenport—Western Flour Mills		8,000
Davenport—Western Flour Mills		17,500
Iowana—Riverside Power Manufacturing Co Linwood—Dewey Portland Cement Company		$65,000 \\ 135,000$
Mason City:	• • • •	100,000
Decker, Jacob & Company		25,000
Electric Light Plant Company		25,000
Lehigh Portland Cement Company		112,000
Mason City Brick & Tile Company	• • • •	65,000
Northwest States Portland Cement Co		160,000
Peoples Gas & Elec. Company	т	20,000
Muscatine—Heinze Company, H. J	Notural Gas	Indetermined 4,000
Sioux City:	THE CALL	1,000
Armour Packing Company	Natural Gas	20,000
Catholic Institutions		6,000
Cudahy Packing Company	Natural Gas	20,000
Morrill & Company, John. Sioux City Gas & Elec. Company		35,000
		80,000
Swift Packing Company	Nat. Gas (00)	6) 22,000
[fol. 903]		
Illinois:		
Alton—Owens-Illinois Glass Company	• • • •	200,000
Chicago:		
Crane Company		50,000
Domestic household consumers	Natural Gas	250,000
(23,000 burners installed in houses since July 1, 1933)		
General American Tank Car Company		30,000
Lever Bros	• • • •	50,000
Republic Steel Corporation	Natural Gas	
Water gas sets and coal formerly used for manu-		
facturing water gas coke at State Line Generating Company		1 000 000
ating Company		1,000,000 $250,000$
Depue—Mineral Point Zinc Company		30,000 to
2 Sand Some and Some		50,000
		•

	Displace by	ed A	actual tonnage lost (tons)
East St. Louis:	Natural	Con	400,000
Aluminum Ore Company	Macuiai	Cas	400,000 250,000
O'Bear Nester Glass Company			30,000
Eagle Pitcher Lead Company			3,000
Granite City:			•
Granite City Steel Company			70,000
Natl. Enameling & Stpg. Company Union Starch & Rfg. Company			30,000
Union Starch & Rfg. Company		-	60,000
Joliet—American Can Company	• • •		12,000
Joliet—Ruberoid CompanyOttawa—Libbey-Owens-Ford Company			35,000 75,000
Ottawa—Natl. Plate Glass Company		•	225,000
Roley—American Maize Products Company			100,000
Streator—Mississippi Glass Company			40,000
Streator—Owens-Illinois Glass Company			90,000
Waukegan—Johns Manville Company			50,000
Woodward—Roxana Corporation	Oil		125,000
Woodriver—Standard Oil Company	Oil		250,000
Indiana:			
East Chicago—Cudahy Packing Company			10,000
			,
Kansas:			
Emporia:	NT - 4 1	α	50
Axe Bros. Bakery	Natural Natural		50 400
Broadview Hotel	Oil	Cas	100
College of Emporia	Natural	Gas	500
Congress Anartments	Natural	Gas	75
Humphrey's Bakery	Natural	Gas	100
Martin Laundry	Oil		600
Newman Memorial Hospital	Oil		500
New Process Laundry	Oil Oil		1,000 400
St. Mary's HospitalState Teachers College	Oil		1,200
Junction City—Entire business district	Natural	Gas	5,000
Manhattan—Kansas State Agr. College	Naturai	Gas	15,000
OttowaHigh School	Naturai	Gas	400
Ottowa-Ottowa College	Naturai	Gas	600
Ittawa Ottawa College	Naturai	Gas	600
Tecumsen—Ransas Power & Light Company	Naturai	Gas	50,000
[fol. 904]			
Topeka:			
Beatrice Creamery	Natural	Gas	7,500
Christs Hospital			800
City Hand Laundry	Natural		1,200
Grace Cathedral	Natural		1,000
Kansan Hotel	Natural	Gas	600
Merrill Packing Company	Natural	Cas	10,000
Seymour Packing Company			15,000 7,500
Topeka Packing Company	Natural	Gas	200
Topeka Pure Milk Company	Natural	Gas	2,000
Louisiana:			,
Bogalusa—Bogalusa Paper Company	Natural	Gas	60,000
Baton Rouge—State University	Natural	Gas	5,000
New Orleans—American Sugar Refining Co New Orleans—New Orleans Public Service Co	Natural	Gas	150,000
Mem Ottestis—Mem Ottestis I double pervice Co	TANGULARI	Cas	275,000

		Actual ton-
	Displaced	nage lost
Maine:	by	(Tons)
Auburn—Cushman Hollis Shoe Company Augusta—Cushnoc Paper Company Belfast—Amer. Agricultural Chemical Co Brewer—Eastern Manufacturing Company Bethel—Bethel Inn	Hydro-Elec.	3,000 25,000 5,000 30,000 400 10,000 1,000 5,000 1,000 1,000 60,000 30,000 5,000 1,000 1,000 5,000
Portland:		
Ayer-Houston Company American Can Company Bancroft & Martin Burnham & Morrill Cumberland Co. Power & Light Company Central Maine Cold Storage Company Chapman Building Columbia Coal Storage Company Congress Square Hotel Emery Waterhouse Company Globe Laundry Greely Laundry	Oil Oil Oil Oil Oil Oil Oil Oil Oil Oil	1,500 1,000 10,000 1,000 1,000 1,200 3,000 350 5,000 125 800 800
[fol. 905]		
Hotel Lafayette Henley-Kimball Company Hinds Building Maine Eye & Ear Infirmary N. E. Cold Storage Company Porteus Mitchell & Braun Police Department Headquarters Portland Buick Company Ramsdell Packing Company Strand Building Seacoast Tanning Company St. Barnabas Hospital State Building State Street Hospital Trelawney Building Winslow & Company Rockland—Lawrence Packing Company Rumford—International Paper Company Saco—York Manufacturing Company Sanford—Sanford Mills	Oil Oil Oil Oil Oil Oil Oil Oil Oil Oil	500 200 400 1,500 3,000 300 100 200 350 250 350 800 350 25,000 15,000 25,000
Sanford—Goodall Worsted Company	Ŏil	25,000

	Displaced by	Actual ton- nage lost (Tons)
Searsport: American Agricultural Chemical Company. Armour & Company. Summers & Company. Skowhegan—Maine Spinning Company. South Brewer—Eastern Manufacturing Company. South Lincoln—American Thread Company. South Windham—Androscoggin Pulp Company. Waterville—Keyes Fibre Company. Waterville—Wyandotte Worsted Company. Westbrook—Dana Warp Mills. Wilton—Blue Mountain Inn. Wilton—Wilton Woolen Mills.	Hydro-Elec. Hydro-Elec. Hydro-Elec.	10,000 500 2,000 500 5,000 18,000 40,000 4,000 3,000 100 5,000
Maryland: Baltimore: American Paving & Contracting Co. Anchor Post Fence Company. Baltimore Steam Packet Company. Commercial Pigments Company. Consolidated Gas, Elec. Light & Power Co. Davidson Chemical Company. Ellicott Machine Corporation. Foote & Co., Inc., D. E. Grebb, Louis. Greenwald, Inc. Griffith & Boyd. Gunthers Brewery. High Pressure Pumping Station. Hinde & Dauch Paper Company. Lighthouse Service Company. Miller Fertilizer Company.	Oil Oil Oil Oil Oil Hydro-Elec. Oil Hydro-Elec. Hydro-Elec. Oil Hydro-Elec. Oil Hydro-Elec. Oil Hydro-Elec. Oil Hydro-Elec. Oil Oil Oil Oil Hydro-Elec.	3,600 300 28,000 750 58,000 1,000 5,000 300 2,000 100 5,000 5,000 850 2,000 2,500
[fol. 906] Mutual Chemical Company. Oles Envelope Company. Prudential Oil Corporation. Renneberg & Son, Edw. Standard Fruit & S. S. Co. Tin Decorating Company. University Hospital. Weiskittell & Sons Co., A. Frederick—Corp. of Frederick. Savage—Savage Manufacturing Company. Woodsboro—Barrick & Sons, S. W.	Oil Oil Oil Oil Oil Oil Oil Oil Oil Oil	30,000 100 15,000 200 12,000 5,000 3,600 1,000 1,500 4,000 600
Massachusetts: Andover—Tyler Rubber Company. Assonet—Crystal Dye & Bleachery Co. Attleboro: Apco Mossberg Corporation. Bigney Company, S. O. Briggs Company, D. F. Eden Company, C. H. Makepeace Company, D. E. Mossberg Pressed Steel Co. Simmons Company, R. P. Tappan Bros. Union Plate & Wire Company Watson Company.	Oil Oil Oil Oil Oil Oil Oil Oil Oil Oil	5,000 700 1,000 500 700 250 800 6,000 500 500 1,000 500

PLAINTIFF'S EXHIBIT 32—Con	tinued	
	Displaced by	Actual ton- nage lost (Tons)
Wolfenden & Sons Company, R	Oil	5,000
Ayer—Ayer Electric Light Company	Hydro-Elec.	400
Ayer—Ayer Water Works	Hydro-Elec.	1,200
Beverly—United Shoe Machinery Company	Oil	10,000
Blackington—Blackington Company	Hydro-Elec.	500
Bondville—Bondville Bleachery & Dye Works	Oil	7,500
Bondville—Boston Duck Company	Ōil	7,500
Boston:		*,
American Rubber Company	Oil	1,000
Ashton Valve	Ŏil	1,200
Badger Building.	Öil	1,200
Boston City Hospital	Oil	20,000
Cabot, Cabot & Forbes Bldg	Ŏil	6,000
Catholic Institutions	Oil	7,000
Christian Science Church	Öil	3,000
City of Boston Fire Department	Öil	5,000
City of Boston Schools	Õil	9,000
City of Boston Supply Company	Oil	25,000
Commonwealth Pier No. 5	Öil	2,800
Copley Plaza Hotel	Oil	4,000
Eastern S. S. Company—Bunkers	Oil	25,000
Edison Electric Ill. Company	Hydro-Elec.	125,000
Eliott Addressograph Company	Oil	3,000
Employers Liability Bldg	Oil	4,000
Filene's Sons Company, Wm	Oil	6,000
[fol. 907]		,
	0:1	1 000
Toss Co., H. C.	Oil	1,200
Franklin Sq. House	Oil	1,000
Free Hosp, for Women	Oil Oil	3,000
Gillette Safety Razor	Oil	15,000 15,000
Gypsum Co., U. S	Oil	1,000
Hildroth Co. H. A.	Oil	2,000
Hildreth Co., H. A Holtzer-Cabot Elec. Co	Oil	900
Hotel Somerset.	Öil	2,000
Kinney Mfg. Co	Oil	400
Lambrette-Garnette Mills	Öil	400
Mass. General Hospital.	Öil	10,000
Mass. Memorial Hospital	Öil	1,000
New Eng. Confectionery Co	Öil	4,000
Nordblom's Bldgs., R. A	Oil	20,000
Old Colony Trust Co	Oil	1,000
Page & Shaw	Oil	1,200
Pilgrim Laundry	Oil	1,000
Plant Co., Thos. B	Oil	20,000
Prince Co., S. S.	Oil	1,200
Quincy Mkt. & C. S. Whse Co	Oil	20,000
Revere Sugar Refining	Oil	25,000
Salada Tea Co	Oil	1,000
Simmons College	Oil	1,800
Simplex Wire & Cable Co	Oil	4,000
Standard Oil Co	Oil	2,500
State House	Oil	4,000
Stone & Webster	Oil	4,000
Security Mills	Oil	3,000
Squire Co., John B	Elec.	20,000
United Carr Fastner Co	Oil	5,000
United Drug Co	Oil	8,000
United Fruit Co.—Bunkers	Oil	60,000
Woods Machine Co., S. A	Oil	1,000 4,000
Bridgewater—White Shoe Co., L. L	Oil	1 ,00 0

Brockton:	Displaced by	Actual ton- nage lost (Tons)
Barbour Welting Co.	Oil	1,600
Goldthwaite, C. H.	Ŏil	300
Plymouth County Div.—Goudy Factory	Oil	700
Plymouth County Div.—Goudy Factory White Star Laundry	Oil	1,200
Brookline—Chestnut Hill Pumping Sta	Oil	10,000
Cambridge:		
Aldens Speare's Sons Co	Oil	1,000
American Rubber Co	Oil	5,000
Ashton Valve Co	Oil	1,200
[fol. 908]		
Briggs Co., C. A	Qil	1,800
Harvard	Elec.	3,600
Dewey & Almy Chemical Co	Oil	1,500
Hews & Co., A. H	Oil Oil	$^{1,800}_{250}$
Harvard Stillman Infirmary	Oil	500
Johnson Educator Food Co	Ŏil	500
Library Bureau	Ŏil	1,500
Mansion House Ice Cream Co	Ŏil	350
N. E. Confectionery Co	Oil	3,000
Rand-Kardex Bureau, Inc	Oil	600
Sawyer & Son, H. M	Oil	500
Canton:		
Plymouth Rubber Co	Oil	3,000
Springdale Finishing Co	Oil	4,000
Careyville—Taft Woolen Co	Elec.	1,200
Charlestown—Stickeny & Per Co	Oil Oil	1,200
Chartley—Holmes Co	Oil	8,000 1,000
Chartley—Study Bros	Öil	500
Chester—Cortland Grinding Wheeler Corp	Ŏil	700
Chelsea—Forbes Lithograph Co	Ŏil	5,000
Chelsea—Mexican Petroleum Corp		
Chelsea—Revere Rubber Co	Oil	30,000
Chicopee Moore Drop Forging Co	Oil	18,500
Chicopee Falls—Stevens Arm Co	Elec.	10,000
City Mills—Buckley & Mann Inc	Elec.	2,500
Clinton:	0:1	00 /05 000
Bigelow-Sanford Carpet Co	Oil Oil	20/25,000
Brusquet, N	Oil	30 200
Conti, A. E.	Oil	100
Johnson, Allen	Ŏīl	90
Roubaix Mills. Inc	Oil	750
Cliquot—Safepack Mills	Oil	1,000
Concord—Concord Municipal Light Co	<u>O</u> il	5,000
Concord—Public Serv. Co	Elec.	40,000
Dighton—Anchor Color & Game Works	Elec.	500
Dighton—Mt. Hope Finishing Co Dodgeville—Dodgeville Finishing Co	Oil Elea	20,000
Dudley—Dudley Paper Co.	Elec. Oil	500 1,000
E. Barintree—City Service Refining Co	Oil	5,000
East Boston—Bethlehem Shipbuilding Corp.	Ŏil	3,000
East Boston—Maverick Mills	Ŏil	4,000
E. Bridgewater—Edison Elec. III. Co. of Brockton	Qil	20,000
E. Dedham—Dedham Finishing Co	Qil	5,000
E. Hampton—Western Mass. Co	Elec.	1,500
E. Cambridge—House of Correction	Oil	2,700

	Displaced by	Actual ton- nage lost (Tons)
E. Mansfield—Dustin Bros. Greenhouses East Taunton—Chandler Oilcloth Co East Whittenton—Whittenton Mfg. Co	Oil Oil Oil	500 3,000 8,000
[fol. 909]		
Everett:		
American Solv. & Chem. Corp	Oil Oil Oil Oil	8,000 400 1,000 40,000
Fall River:	0.1	25 000
American Printing Co. F. R. Elec. Light Co. Mechanix Fdry. & Mach. Co. Farnams—U. S. Gypsum Co. Farnumsville—Wuskanut Mills.	Oil Oil Elec. Oil Oil	35,000 20,000 500 24,700 3,500
Fitchburg:	0''	F0.
American Hand Laundry. Christ Church Crocker-Burbank Ass'n. De Jonge Co., Louis. Faluah Paper Co.	Oil Oil Oil Elec. Elec.	50 130 $35,000$ $2,000$ $1,500$
Falulah Paper Co	Oil	25,000
Grant Yarn Co	Oil Oil	10,000 115
Ideal Hand Laundry	Oil	60
Padula, J. A. (Bakery) Sacred Heart Church	Oil Oil	150 250
St. Francis Church	Oil	180
St. Joseph's Church	Oil Oil	200 125
Swanson Bakery	Oil	400
Fore River—Bethlehem Steel Corp	Elec. Oil	7,500 10,000
Framingham—Boston, Worchester & N. Y. St. Ry.	Elec.	5,000
Framingham:	0.1	700
Butterworths GreenhousesInt. Engineering Corp	Oil Oil	500 1,000
Int. Engg. Co	Oil	1,200
Hodgman Rubber Co	Oil Oil	2,000 300
Franklin:		
Appleton Rubber Co	Oil	5,000
Clark, Cutter & McDermottFranklin Yarn Co	Oil Elec.	1,000 800
Haywood Woolen Co	Elec.	1,200
Gardner: City of Gardner Water Dept. Collier-Keyworth Co. Gardner Auto Co. Gardner Elec. Light Co. Gardner Upholstered Co. Heywood Hospital. Heywood Wakefield Co. Mahoney Chair Co. Parker Bros. Silbert Co., A. W.	Elec. Elec. Oil Elec. Oil Elec. Oil Elec. Elec. Elec.	250 500 500 2,000 500 600 6,000 500 500
~==×××××××××××××××××××××××××××××××××××	EDACU.	500

	Displaced by	Actual ton- nage lost (Tons)
Gloucester: Booth Fisheries	Oil	300
[fol. 910]		
Cape Ann Quarry Co	Oil Oil	$\overset{500}{2,000}$
Greenfield: Greenfield Gas Light CoGreenfield Tap & Die Corp	Oil Oil	$^{1,400}_{1,400}$
Groton: Groton Private Hospital Groton Water Co	Oil Elec.	60 200
Sacred Heart Church. Cuttyhunk—William Wood. Halifax—Halifax Gorden Co.	Oil Oil	2,000
Haverhill: Archibald, F., Inc Building Trust Co Allen, Edgar L	Oil Oil Oil	$\begin{array}{c} 4,500 \\ 2,500/3,000 \\ 100 \end{array}$
Snyder Shoe Co Stevens, M. T. & Sons, Co Hebronville—Ray Cotton Co	Oil Oil Elec.	500 10,000 2,000
Holyoke: Afflect Ruling & Stationery Co American Tissue & Paper Co., 12,000 Elec Buchanan Bolt & Wire Eureka Blank Book Co.	Oil Oil Oil Oil	30 1,200 500 225
Holyoke Electric Co	Elec. Elec. Elec. Oil	20,000 10,000 5,000 75
Marvellum Paper Co	Elec. Oil Elec. Elec.	8,000 5,000 20,000 500
Taylor Logan Paper Co	Elec. Elec. Elec. Elec.	5,000 9,000 5,000 10,000
Hudson: Elks Block Elm Theatre Hudson Co. Operative Bank	Oil Oil	200 250 150
Hudson Light & Power PlantHudson National BankHudson Worsted Co	Oil Oil Oil Oil	2,500 200 4,000
Huntington—Lovering Co., Wm. M	Oil Oil Oil Elec.	700 3,000 4,700 1,500
Lawrence: Amer. Woolen Co. (Washington M.) Amer. Woolen Co. (Wood Mills)	Oil Oil	55,000 195,000
Capital Theatre	Oil Oil Oil	6,000 150 125
Jersey Ice Cream Co	Oil	350

[fol. 911]	Displaced by	Actual ton- nage lost (Tons)
Lawrence:	DJ.	(IOLS)
Klous, H. Meadow Brook Laundry Merchants Trust Co. Monomae Spinning Co. Pacific Mills. St. Augustine's Church St. Mary's Convent. Leominster—Dupont Viscaloid Co. Leominster—Leominster Elec. Light Co.	Oil Oil Oil Oil Oil Oil Oil Oil Oil Oil	1,000 500 40 8,500 100,000 125 75 12,000 5,000
Lowell:		
American Woolen Co. (Bay State M.) Bagshaw & Co., W. H. Lawrence Mfg. Co. Merrimac Mfg. Co. Nasbina Mfg. Co. Post Office Garage Waterhead Mills, Inc. U. S. Bunting Co. Lunenburg—Fish Farm Lynn—Lydia Pinkham Medicine Co. Malden—Boston Rubber Shoe Co.	Oil Oil Oil Oil Oil Oil Oil Oil Oil Oil	6,000 1,000 10,000 30,000 5,000 100 7,500 10,000 150 500 5,000
Malden:		
Converse Rubber Co. Family Laundry Halycon Laundry Co. Malden Elec. Co. Malden Knitting Mills. Potter Drug & Chem. Corp. Revere Knitting Mills. Wadsworth Howland Co. Mansfield—Chocolate Refiners, Inc. Mansfield—Mansfield Bleachery Marlboro—Duane Shoe Co. Marlboro Wine Goods Co.	Oil Oil Oil Elec. Oil Oil Oil Oil Oil Oil Oil Oil Oil Oil	3,500 300 800 1,000 3,000 1,500 100 500 4,000 5,000 100 200
Maynard:		
American Powder Co. Assabet Savings Bank Case, W. B. Cleary, Genevieve Fowler, Guyer Gruber Bros. Guyer Fowler Maynard Trust Co. Roosevelt School. Medfield—Mitchell Co., E. B.	Oil Oil Oil Oil Oil Oil Oil Oil Oil Oil	3,000 100 50 100 100 150 3,000
Medford:		
Amrad Corp. Gair Co., Robt. Medford Br. Solvent Products Co. Tufts College. Warner & Childs. Worchester Paper Box Corp.	Oil Oil Oil Oil Oil Oil	500 500 300 4,000 900 1,000

[fol. 912]	Displaced by	Actual ton- nage lost (Tons)
M: J.B. barre		
Middleboro:	Oil	150
Maxim Motor Co	Oil	150
Middleboro Poor Farm	Oil	100
Middleboro Savings Bank		100
Millbury—Felters Co	Oil Oil	1,500
Millis—Safe Pack Co	Oil	1,500
Millville—Woonsocket Rubber Co	Oil	2,500
Milton—Baker & Co., Inc., Walter	On	12,000
Natick:	0"	F 000
Natick Box & Board Co	Oil	5,000
N. E. Pressed Steel Co	Oil	1,500
New Bedford:		
Acushnit Process Co	Elec.	2,500
Beacon Mfg. Co	Oil	12,000
Bristol Mfg. Co	Oil	5,000
Dartmouth Mfg. Co	Qil	15,000
Devon Mills	Elec.	3,000
Firestone Cotton Mills	Elec.	4,500
Fisk Rubber Co	Oil	10,000
Fisk Tire Fabric Co	Elec.	3,500
Grinnell Mfg. Co	Oil	3,000
National Spun Silk	Oil	6,000
Neild Mfg. Co	Oil	4,500
New Bedford Rayon Co	Elec.	5,000
Wamsutta Mills	Oil	18,000
Whitman Mills	Oil	12,000
Newton—Boston College	Oil	2,000
Newton—Saxony Worsted Mills	Oil	700
Newton—Security Mills, Inc.	Oil	3,000
Newton U. Falls—Stowe & Woodward Co	Elec.	500
Northampton—Belding Hemingway Co	Oil Oil	2,500
Northbridge—Kupper Bros	Oil	1,500
Northampton—Northampton Gas Light Co	Oil	3,000
Northampton—Northampton Street Ry. Co Northampton—Rogers, Wm. A., Ltd	Oil	$\frac{5,000}{1,400}$
Northbridge—Whitin Mfg. Co., Paul	Oil	2,500
N. Abingdon—Plymouth Rock Ice Cream Co	Oil	500
N. Abingdon—Bay State Nurseries	Öil	1,000
N. Attleboro—Banks St. Greenhouses	Öil	400
N. Attleboro—Frank W. Whiting Co	Ŏil	500
Page & Baker Mfg. Co	Öil	800
Whiting Co., Frank W	Oil	500
N. Cambridge—Dewey & Almy Chem. Co	Oil	2,000
N. Dighton—Mt. Hope Finishing Co	Oil	20,000
N. Easton—Ames Shovel & Tool Co	Oil	2,000
N. Plymouth—Plymouth Cordage Co	Oil	25,000
Palmer—Better Brushes, Inc	Oil	200
Palmer—Wickwire-Spencer Steel Co	Oil	1,400
Peabody—Danvers Bleachery & Dye Works	Oil	3,000
Hunt Rankin Leather Co	Oil	1,000
Pennerell Water Dent	2.2.	
Pittsfield—Berkshire Street Ry. Co	Oil	5,900
[fol. 913]		
Pittsfield—Jones & Son, E. H	Oil	1,000
Manlewood Cleaners & Dvers, Inc	Oil	500
Pittsfield—N. Eng. Lime Co	Oil	10,000
Pittsfield—Pittsfield St. Rv. Co	Elec.	6,000
Plymouth—American Woolen Co	Oil	3,000
		*

	Displaced by	Actual ton- nage lost (Tons)
Plymouth—Edes Mfg. Co	Oil	250
Plymouth—Puritan Mills	Oil	6,000
Quincy—Bethlehem Steel Corp	Oil	10,000
Quincy—Bethlehem Steel CorpQuincy—Eastern Mass. St. Ry. Co	Oil	60,000
Reading:		
Reading Elec. Lt. Co	Elec.	3,000
Reading Rubber Mfg. Co	Oil	4,000
Reading Sanford Mills, Inc	Oil	12,000
Revere—Forbes Lith-Mfg. Co	Oil	5,000
Riverdale—Kupper Bros	Oil	2,500
Rockport:	Oil	500
Cape Ann Tool Co	Oil	500
Postmont Anghor Works	Oil	500
Johnson Quarry Rockport Anchor Works Russell- Westfield River Paper Co	Oil	1,500
Salem—Salem Electric Co., Elec. 60,000	Oil	5,900
Saundersville—Saunders Cotton Mills	Oil	10,000
Saxonville—Roxburg Carpet Co	Oil	2,000
Shawsbeen—American Woolen Co	Oil	6,000 25,000
Sheffield—U. S. Gypsum Co	Oil	25,000
Somerset—Montaup Elec. Light Co.	Oil	$10,200 \\ 250,000$
Sommensville—Agar Mfg. Co	Oil	250,000
Somerville—No. Packing & Prov. Co	Ŏil	18,000
Somerville—Squire & Co., J. P.	Ŏil	16,000
Southbridge—Amer. Optical Co	Oil	25,000
Somerville—Squire & Co., J. P. Southbridge—Amer. Optical Co. Southbridge—Atlas Plywood Corp.	Elec.	1,000
Southbridge:		1,000
Central Optical Co	Oil	1,000
Hyde Mfg. Co	Ŏil	1,000
Littlefield Shuttle Co.	Ŏil	500
Snell Mfg. Co.	Öil	500
Southbridge Elec. Co	Elec.	3,500
Southbridge Ptg Co	Oil Oil	9,000
Southbridge Finishing Co.	Oil	7,000
webster Elec. Lt. Co	Oil	3,000
So. Weymouth—Stetson Shoe Co	Oil	3,000
So. Wilmington—Merrimac Chemical Co	Oil	3,000
Springfield:		,
Amer. Bosch Magneto Co	Oil	2,300
Diair Mig Co	Oil	3,000
Elweil fron Works, H. F.	Oil	800
CHIDER W. Darnour	Oil	3,000
Hampden Grindging Wheel Co	Oil	1,400
Hampden Grindging Wheel Co. Indian Motor Cycle Co. Moore Prop Form Co.	$\mathbf{Elec}.$	10,000
MODE DIOD FORE CO.	Qil	1,200
N. E. Pack. Mach. Co	Oil	500
Packaga Machinawa Ca	0"	
Package Machinery Co	Oil	800
Perkins Soap Co. Philip Buston Inc.	Oil	500
Philip Buston, Inc Springfield Elec. Lt. Co.	Oil	90
Stoneham:	Elec.	40,000
	1701	
Amer. Gelatine Co. Bay State Boy Co.	Elec.	4,500
Bay State Box Co U. S. Army	Elec.	1,500
U. S. Army Stoughton:	Oil	4,000
Binton & Co E E	0.11	
Binton & Co., F. E. Phillips, F. C. Shawmut Wollon Mills	Oil	200
Shawmut Wollen Wills	Oil	150
	Oil	300
Sudbury—Hawes, E. Roy.	Oil	100

	Displaced by	Actual ton- nage lost (Tons)
Tauton:	•	,
Dudley, Sumner A. Glenwood Range Co. Herrodite Finishing Co. Tauton Municipal Light Co. Taunton & N. Bedf. Copper Co. Robertson Motor Car Co. Stiles & Hart Brick Co. Taunton Knitting Co.	Elec. Oil Oil Oil Oil Oil Oil	500 1,000 2,000 18,000 15,000 200 3,500 1,000
Taunton Rubber Co. Whittendon Mfg. Co. Tewksbury—Patton & Co. Tewksbury—State Infirmary Three Rivers—Otis Co. Turner Falls—Greenfield Tap & Die Corp. Uxbridge—Worcester Suburban Elec. Co.	Oil Oil Oil Oil Oil Elec.	2,500 15,000 500 10,000 7,500 7,000 5,000
Waban—Boston Gardening Co Wakefield—Crescent Laundry	Oil Oil	900 250
Waltham: Belgian Enamel Corp Belgian Spinning Co	Oil Oil	1,000 1,000
Bettinger Spinning Co. Boston Mfg. Co. Potter Pres. Waltham Bleachery & Dye Works. Waltham Foundry Co.	Oil Oil Oil Oil	10,000 500 5,000 1,500
Ware—Bliss Fabyan & Co	Oil	7,500
Hood Rubber Co Lewardos, Inc Watertown Arsenal.	Oil Oil Oil	20,000 3,000 6,000
Webster: The Slater Co	Oil	10,000
Slater & Sons, Inc	Oil Oil	7,500 9,000
Wellesley: Babsons Statistical Org	Oil	1,000
[fol. 915]		
Cafars Greenhouses, A Lake Waban Laundry Co Wellesley College Westfield:	Oil Oil Oil	250 500 10,000
Westfield Elec. Lt. Co Westfield Mfg. Co W. Dudley—W. Dudley Paper Co W. Medway—Stone Mills Co	Elec. Oil Oil Elec.	4,500 1,400 2,500 500
W. Springfield: Gelbert & Baker Mfg. Co. New England Smelting Works. Wico Elec. Co. W. Stockbridge—Grangers Mfg. Co. W. Stockbridge—Lee Lime Corp.	Oil Oil Oil Oil Oil Oil	12,000 700 1,000 500 700 6,000
W. Warren—Thorndike Co	Oil	3,000

	Displaced by	Actual ton- nage lost (Tons)
Wilkinsonville—Anco Mills	Oil Elec. Elec. Elec.	2,000 3,000 2,500 3,000
Winchester: N. England Laundries Co. Puffer Mfg. Co. Winchester Ldry. Co. Woburn—Bailey & Blendinger Mfg. Co. Woburn—Tribble Cordage Mills.	Oil Oil Oil Oil Oil	500 1,500 2,000 500 300
Worchester: Adams, J. J. American Optical Co. Amer. Steel & Wire Co. Artex Grinding Co. Art Museum Assumption College Bieber-Polar Co. Bowker-Hamblin Co. Bowker-Hamblin Co. Budish & Kaplan Calvery Stearns Co. Church of Ascension City of Worcester (All Places) John P. Couglin. Crompton & Knowles. Eagles Bldg. Fairlawn Hospital Federal Baking Co. Fitzgerald West St. (All Places) Worchester-Hadley Furniture Co. Hahnemann Hospital Harper, Jos. Hatch & Barnes Hillcrest Dairy	Oil Oil Oil Oil Oil Oil Oil Oil Oil Oil	165 200 25,000 135 200 500 135 235 135 200 165 400 200 335 165 165 165 200 135
Holy Name of Jesus Church Humphrey G. Grafton St. Hyatt, Irving St. (All Places) [fol. 916]	Oil Oil Oil	260 165 165
Johnson Wire. Johnson & Bassett. Lady of Mt. Carmel Church Lady of Vilna Church. McDermott, Dr. (All Places). Manning Pie Bakery. Mass. Baking Co. Mass. Protective Assn. Notre Dame Church. Norton Co. Odd Fellows Bldg. Osgood Bradley Car Works. Rice, Barton & Wales. Rockwood Sprinkler Co. Sacred Heart Church. St. Ann's Church. St. Ann's Orphanage. St. Casimir's Church. St. John's Church (All Places). St. Mary's Church.	Oil Oil Oil Oil Oil Oil Oil Oil Oil Oil	300 265 165 200 200 165 235 235 235 235 235 135 135 135 235 300 165 235

	Displaced by	Actual ton- nage lost (Tons)
St. Margaret's Church. St. Matthew's Church. St. Steven's Church. Second Advent Church. Sisters of Mercy. Stafford Iron Works. Standard Foundry. Telegram & Gazette. Washburn & Garfield. Woods, W. J. Worcester Co-op. Bank. Worcester Elec. Light Co. Worcester Elec. Light Co. Worcester Stamped Metal Co. Worcester Stamped Metal Co. Worcester Stamped Metal Co. Worcester Women's Club. White & Bailey Co. Zylonite—Hoosac Valley Lime Co. Zylonite—N. E. Lime Co.	Oil Oil Oil Oil Oil Oil Oil Oil Oil Oil	135 260 200 165 200 165 235 265 235 165 335 300 165 26,000 135 1,000 9,200 24,700
[fol. 917]		
Michigan: Alma—Crystal White Sugar Co Grand Haven—City of Grand Haven. Midland—Dow Chemical Co Milwaukee—Commonwealth Power Co Mt. Pleasant—Isabella Sugar Co	Oil Oil Oil Oil Oil	10,000 14,000 200,000 73,000 15,000
Minnesota: Albert Lea—Electric Light Plant. Albert Lea—Interstate Power Co. Austin—Geo. Hormel & Co. Minneapolis—Minneapolis Gas Light Co. Minnesota—Minnesota State Institution. Newport—Cudahy Packing Co. Northfield—Carleton College. Owantonna—City Light Plant. Rochester—City Light Plant. Rochester—Franklin Heating System. Rochester—State Hospital. St. Paul—Armour & Co. St. Paul—Swift & Co.	Gas Gas Natural Gas Natural Gas Natural Gas	34,000 25,000 35,000 65,000 27,000 15,000 4,000 10,000 16,000 10,500 90,000 75,000
Mississippi: Biloxi—Biloxi Gas Co Bulport—Miss. Power Co Jackson—Buckeye Cotton Oil Co Jackson—Jackson Gas Co Laurel—Masonite Corp Meridian—Insane Hospital.	Natural Gas Natural Gas	10,000 30,000 10,000 10,000 25,000 8,000
Missouri:		
Crystal City—Pittsburg Plate Glass Co. Jefferson City—Mo. Power & Light Co. Hines—St. Louis County Water Co. Kansas City—Armour & Co. Kansas City—Cudahy Packing Co. Kansas City—Standard Oil Kansas City—Swift & Co.	Natural Gas Natural Gas	180,000 47,500 13,500 120,000 48,000 327,500 48,000

	Displaced by	Actual ton- nage lost (Tons)
Kansas City—Wilson Packing Co St. Louis—Alpha Portland Cement Co	Natural Gas Gas	48,000 80,000
St. Louis—American Can Co		2,000
St. Louis—Crunden Martin Mfg. Co		5,000
St. Louis—Evans & Howards Service Co St. Louis—General Cables Corp	• • • •	20,000 5,000
St. Louis—Hydraulic Press Brick Co		25,000
St. Louis—Krey Packing Co		12,000
St. Louis—Laclede Christy Clay Products Co	Gas	20,000
St. Louis—Mississippi Glass Co		30,000
St. Louis—Monarch Metal Products Co St. Louis—Orchard Paper Co		150 600
St. Louis—Quick Meal Store Co.		8,000
St. Louis—St. Louis Malleable Casting Co		6,000
Nebraska:		
Hastings—Municipal Light Plant	Natural Gas	4,600
Lincoln—Iowa-Nebraska St. & Power Co		90,000
Omaha—Armour Packing Co	Natural Gas	127,500
Omaha—Cudahy Packing Co	Natural Gas	55,000
Omaha—Dold Packing Co		18,250
So. Omaha—Armour & CoSo. Omaha—Cudahy Packing Co	• • • •	$100,000 \\ 5,000$
[fol. 918]	* * * *	3,000
New Hampshire:		
Berlin:		
Berlin Street Railway Co	Elec.	2,500
International Paper Co	Oil	10,000
Belmont Hosiery Co	Elec.	1,000
Claremont:	0.11	
Claremont Paper Co	Oil	5,000
Magnet Theatre	Oil Oil	200 150
Concord—Perry Bros. Granite Co	Elec.	400
Conway—Conway Elec. Light & Power Co	Elec.	1,500
Danbury—Danbury Light & Power Co	Elec.	1,000
Dover—Pacific Mills	Elec.	15,000
E. Andover—East Andover Light & Power Co	Elec.	1,500
Franklin:	0:1	100
Buell Block Franklin Light & Power Co.	Oil Elec.	$\substack{100 \\ 2,000}$
Franklin National Bank	Oil	2,000
Griffin Co., G. W	Oil	500
Pastime Theatre	Ōil	60
Pourtois Block	Oil	25
Proctor Block.	Oil	30
Stewart Block. Sulloway Mills.	Oil Oil	$\begin{array}{c} 75 \\ 3,800 \end{array}$
Hanover—Dartmouth College	Oil	10,000
Hill—Hill Light & Power Co	Elec.	2,000
Keene:	o.,	
Hotel Ellis	Oil	150
Perkins Machine Co. St. Bernard's Parochial School	Oil Oil	$\begin{array}{c} 125 \\ 200 \end{array}$
Turner Inn	Oil	150
Laconia:	O.I.	100
Harriman Block.	Oil	100
Laconia Gas & Electric Co	Ōil	4,000
Laconia National Bank.	Oil	75

	Displaced by	Actual ton- nage lost (Tons)
Lakeport:		
Lakeport National Bank	Oil	75
Mount Belknap Hotel	Oil	100
Lake Sunapee—W. F. Mortan	Oil	150
Lebanon—Carter & Churchill Co	Oil	500
Lebanon—Carter, H. W. & Sons	Oil	100
Lisbon—Lisbon Mfg. Co	Oil	1,500
Littleton—Littleton Power Co	Oil	1,500
Littleton—Kendrick & Davis Co	Oil	500
Manchester:		
Amoskeago Mfg. Co	Oil	75,000
Public Service Co., Elec. 25,000	Öil	25,000
Sihulkau Shoe Co	Ŏil	150
Meridith:	011	100
Meriutui: Utilitiaa Power Co	Elec.	2 000
Utilities Power Co		2,000
Milford Comboner Volley Flor Co	Elec.	500
Milford—Sowhegan Valley Elec. Co	Elec.	1,500
Nashua:	0"	^ -
Asbestos Wood & Shingle Co	Οij	200
Dunlop Block	Oil	150
[fol. 919]		
Nashua Manufacturing Co	Oil	25,000
Oakland Pontiac Bldg	Oil	100
Snow White Laundry	Oil	600
Goodrich Falls Elec. Co	<u>Oil</u>	1,000
Newport—Newport Elec. Light Co	Elec.	1,000
Portsmouth—New Hampshire Gas & Elec.	o	
Co., Elec. 25,000	Qil	25,000
Rochester—Fownes Mfg. Co	Elec.	2,000
Tilton—Ideal Mfg. Co	Qil	100
Warren—Mica Crystal Co	Elec.	50
Warren—Water & Lighting Co	Elec.	1,000
Wolfebora—Wolfebora Fire Precinct	Oil	450
New Jersey:		
Allwood:		
Osborne Co	Oil	2,000
Alpha—Vulcan Silk Co.	Oil	200
Atlantic Highlands—County Gas Co	Oil	4,500
	014	4,000
Bayonne:	Oil	9 700
E. Jersey R. R. & Terminal Co	Oil Oil	3,700
Electric Dynamic Co		900
Huber, J., Inc.	Oil	600
Bayonne—Ingram Richardson Corp	Oil	350
International Nickel Co	Oil	100
Ogden, J. E.	Oil	350
Belleville—Harlow & Goodman Co	Oil	1,500
Bloomfield—Eastern Love & Mfg. Co	Oil	700
Bloomfield:		
General Electric Works	Oil	17,900
Lehn & Fink Co	Qil	4,400
Nevins Church Press	Oil	900
Peerless Tube Co	Oil	1,200
Wiggins, H. B., Sons Co	Oil	1,200
Boonton:		
Van Raelte Silk Co	Oil	600
Bound Brook—Causse Mfg. & Importing Co.	Oil	300
Bound Brook—Cooke, E. L. & Co	Oil	500
Bound Brook—Fischer-Sweeney Bronze Co	Oil	250
•		_

Bridgeton Water Works Elec 150		Displaced by	Actual ton- nage lost (Tons)
Camden: Southwark Mfg. Co.	Bridgeton Water Works		
Carteret: Amer. Agricultural Chem. Co. Oil 4,500 Metal & Thermmt Corp. Oil 12,000 Moore & Co., Inc. Oil 250 Warner Chemical Co. Oil 12,000 Clinton Oil 4,000 Ounnellen—Art Color Printing Co. Oil 900 E. Patterson—Nat'l. Silk Dyeing Co. Oil 25,000 Edgewater—Barrett Co. Oil 22,000 Edgewater—Artional Sugar Co. Oil 22,000 Edgewater—Spencer Kellogg & Sons. Oil 22,000 Edgewater—Spencer Kellogg & Sons. Oil 22,000 Edison—Edison Cement Co. Elec. 50,000 Edison—Edison Cement Co. Elec. 50,000 Edison—Edison Cement Co. Oil 22,000 Edison—Edison Cement Co. Oil 22,000 Edison—Hartion Provided Co. Oil 22,000 Edison—Hartion Provided Co. Oil 22,000 Edison—Edison Cement Co. Oil 22,000 Edison—Edison Cement Co. Oil 22,000 Edison—Edison Cement Co. Oil 22,000 Edison—Edison Cement Co. Oil 22,000 Farriningdale—A. C. Soper & Co. Oil 178,500 Farriningdale—A. C. Soper & Co. Oil 178,500 Garfield—Hammersey Mfg. Co. Oil 1,000 Garwood—Aeolian Co. Oil 5,300 Garwood—Aeolian Co. Oil 1,800 Oil 1,80	Camden:	Oil	1,200
E. Patterson—Nat'l. Silk Dyeng Co.	Carteret: Amer. Agricultural Chem. Co. Metal & Thermmt Corp. Moore & Co., Inc. Warner Chemical Co. Clinton. Eureka Printing Co. Dunnellen—Art Color Printing Co.	Oil Oil Oil Oil Oil Oil	12,000 250 12,000 4,000 4,000 900
Edgewater—Spencer Kellogg & Sons Oil 22,000 Edison—Edison Cement Co. Elec. 50,000 Elizabeth—Elizabethtown Consol. Gas Co. Oil 43,000 Elizabeth—Elizabethtown Consol. Gas Co. Oil 22,000 Fairrivew—Bellman Brook Bleachery. Oil 500 Farmingdale—A. C. Soper & Co. Oil 178,500 Flemington—New Jersey Northern Gas Works. Oil 500 Garfield—Hammersey Mfg. Co. Oil 1,000 Garwood—Aeolian Co. Oil 1,800 Garwood—Aeolian Co. Oil 1,800 Wailes-Dove-Herminston Corp. Oil 1,800 Wailes-Dove-Herminston Corp. Oil 1,800 U. S. Aluminum Co. Oil 2,900 Grasselli: American Cyanamid Co. Oil 17,800 General Ariline Co. Oil 17,800 General Ariline Co. Oil 17,800 General Ariline Co. Oil 6,500 Warner-Quinlan Co. Oil 6,500 Warner-Quinlan Co. Oil	E. Patterson—Nat'l. Silk Dyeing Co Edgewater—Barrett Co	Oil	22,000
Edison	[fol. 920]		
Carwood:	Edison—Edison Cement Co. Elizabeth—Elizabethtown Consol. Gas Co. Elizabeth—Nat'l. Elec. Products Co. Fairview—Bellman Brook Bleachery. Farmingdale—A. C. Soper & Co. Flemington—New Jersey Northern Gas Works. Garfield—Hammersey Mfg. Co.	Elec. Oil Oil Oil Oil Oil Oil Oil	50,000 43,000 22,000 500 178,500 500 1,000
American Cyanamid Co. Oil 17,800 General Ariline Co. Oil 21,000 Grasselli Chemical Co. Oil 9,000 Structural Gypsum Co. Oil 5,500 Warner-Quinlan Co. Oil 6,500 Hackensack—Berger Products Co. Oil 700 Hackensack—Cito Chemical Co. of America. Oil 3,000 Harrison—Edison Lamp Works. Oil 2,000 Hawthorne—Textile Dyeing Co. of America. Oil 24,000 Jamesburg—N. J. State Home for Boys. Oil 178,500 Jersey City: Air Reduction S. Co. Oil 500 American Can Co. Oil 3,000 Armour & Co. Oil 300 Boyle, J. F. & Co. Oil 9,000 Brunswick Laundry Oil 1,200 Erie R. R. Oil 800 Gandier, J. H. Co. Oil 50 General Baking Co. Oil 1,800 Gillespie Varnish Co. Oil 250 Greater Corrugated Paper Co.	Garwood: Thatcher Foundry Co Wailes-Dove-Herminston Corp	Oil	1,800 1,800
Hackensack—Berger Products Co. Oil 700 Hackensack—Cito Chemical Co. of America Oil 3,000 Harrison—Edison Lamp Works. Oil 2,000 Hawthorne—Textile Dyeing Co. of America Oil 24,000 Jamesburg—N. J. State Home for Boys. Oil 178,500 Jersey City: Air Reduction S. Co. Oil 500 American Can Co. Oil 3,000 Armour & Co. Oil 300 Boyle, J. F. & Co. Oil 9,000 Brunswick Laundry Oil 1,200 Erie R. R. Oil 800 Gandier, J. H. Co. Oil 50 General Baking Co. Oil 1,800 Gillespie Varnish Co. Oil 250 Greater Corrugated Paper Co. Oil 1,200 Inter-Folding Box Co. Oil 250 Koven, L. O. & Bro., Inc. Oil 1,200 Lehigh Valley R. R. Oil 700 Lorillard, P. & Co. Oil 1,500	American Cyanamid Co. General Ariline Co. Grasselli Chemical Co. Structural Gypsum Co.	Oil Oil Oil Oil	21,000 9,000 5,500 6,500
Air Reduction S. Co. Oil 500 American Can Co. Oil 3,000 Armour & Co. Oil 300 Boyle, J. F. & Co. Oil 9,000 Brunswick Laundry Oil 1,200 Erie R. R. Oil 800 Gandier, J. H. Co. Oil 50 General Baking Co. Oil 1,800 Gillespie Varnish Co. Oil 250 Greater Corrugated Paper Co. Oil 1,200 Inter-Folding Box Co. Oil 250 Koven, L. O. & Bro., Inc. Oil 1,200 Lehigh Valley R. R. Oil 700 Lorillard, P. & Co. Oil 1,500	Hackensack—Berger Products Co Hackensack—Cito Chemical Co. of America Harrison—Edison Lamp Works. Hawthorne—Textile Dyeing Co. of America Jamesburg—N. J. State Home for Boys	Oil Oil Oil	$700 \\ 3,000 \\ 2,000 \\ 24,000$
Greater Corrugated Paper Co. Oil 1,200 Inter-Folding Box Co. Oil 2550 Koven, L. O. & Bro., Inc. Oil 1,200 Lehigh Valley R. R. Oil 700 Lorillard, P. & Co. Oil 1,500	Air Reduction S. Co. American Can Co. Armour & Co. Boyle, J. F. & Co. Brunswick Laundry Erie R. R. Gandier, J. H. Co.	Oil Oil Oil Oil Oil Oil	3,000 300 9,000 1,200 800 50
Merrill Spinning Co Oil 350	Greater Corrugated Paper Co. Inter-Folding Box Co. Koven, L. O. & Bro. Inc.	Oil Oil Oil Oil Oil Oil	250 1,200 250 1,200 700 1,500

	Displaced by	Actual ton- nage lost (Tons)
Mueaney Iron Works, F. J	Oil	600
National Products Refg. Co	Oil	1,500
New Jersey & N. Y. R. R	Oil	10
N. Y. S. & W. R. R.	Oil	30 100
North Hudson Grocery Co	Oil Oil	150
Reimer, Robt., Inc	Oil	500
Standard Laundry	Öil	250
Whitlock Cordage Co	Oil	4,000
Kearney—Puolir Serv. Corp	Oil	700,000
Kearney—Carborundum Co	Oil	6,000
Keyport—Calco Chemical CoLincoln—C. A. Leetch Mfg. Co	Oil Oil	700 250
Lirden—Commercial Steel Equipment Co	Öil	119,000
[fol. 921]		,-
Lirden—John Norman Carpet Co	Oil	178,500
Little Falls—Passaic Consol. Water Co	Ŏil	30,500
Lodi—Gregg Co	Oil	1,500
Lodi—United Piece Dye Works	Oil	900
Morristown—Electrical Alloy Co	Oil	250
Mountain View—Enterprise Brick Works	Oil Oil	600 300
Mountain View—Mountain View Brick Works Maywood—Citro Chemical Co	Oil	500 500
Millington—Asbestos, Ltd	Oil	700
Newark—American Can Co	Oil	700
Newark:		
American Oil & Supply Co	Oil	700
Arglo-American Varnish Co	Oil	1,750
J. L. Armitage & Co	Oil Oil	1,500
Ballantine, P. & SonsBamberger, L. & Co	Oil	$\frac{1,450}{2,500}$
Blanchard Bros	Ŏil	8,000
Burroughs Co	Oil	600
Chien, J. & Co	Qil	300
Clark Thread Co	Oil	25,000
Claudius Ash & Co	Oil Oil	350 700
Devoe & Reynolds Co., Inc	Oil	3,500
Eagle Picher Lead Co	Öil	3,000
Eastern Steel Castings Co	Oil	700
Essex Varnish	Oil	700
Gattfried Krueger Brewing Co	Oil Oil	50 1 400
Geneese Baking Co	Oil	1,400 700
Harell Mfg. Co.	Oil	300
Hertz, Max Leather Co	Oil	900
Hess & Drucker, Inc	Oil	2,000
Irvington Varnish & Insulator Co	Oil	200
Kraewter & CoLincoln Farm Products Co	Oil Oil	$^{200}_{1,000}$
Murphy Varnish Co	Oil	3,000
National Fork Washer Co	Õil	1,200
Pyrere Mfg. Co	Oil	1,200
Republic Varnish Co	Oil	700
Sherwin-Williams Co	Oil Oil	700
Simons Pipe Berding Works. Sweet Foundry Co., Wm. J. Universal Tobacco Mach. Co.	Oil	350 600
Universal Tobacco Mach. Co.	Oil	100
A. C. Waterman Co	Oil	900
Woburn-Degressing Co	Oil	3,000

LAINTIFF S DANIBIT 02CORD	nucu	
	Displaced by	Actual ton- nage lost (Tons)
New Brunswick:		
American Incubator Co	Oil	300
Armstrong Cork Co	Ŏil	1,200
Autozyline Chemical Co	ŎîÎ	150
Cadgene Piece Dye Works	Ŏil	350
	Oil	300
Gulhenkain Seamless Rug Co	Oil	
	Oil	6,000
Webb Wire Works	Oil	500
Nutley—Westinghouse Lamp Co	On	3,000
[fol. 922]		
Perth Amboy—Federal Seaboard Terra Cotta Co.	Oil	3,000
Perth Ambov—Fords Porcelain Works	Oil	12,000
Perth Amboy—Pardoe Works, C	Oil	1,750
Perth Amboy—Rossman Coys	Oil	1,500
	-	,
Patterson:		
Empire Piece Dyeing Co	Oil	5,000
Expert Dyeing Co	Oil	2,000
Hessler Laundry	Oil	3,000
Lyons Piece Dye Works	Oil	10,000
Nichelson File Co	Öil	500
Paterson-United Piece Dye Works	Öil	25,000
Weidman Silk Dyeing Co	Ŏil	71,400
Wright Aeronautical Corp	Oil	7,000
·	On	7,000
Passaic:		
Botany Worsted Mills	Oil	25,000
McLean, Andrew Co	Oil	500
Manhattan Print Works	Oil	1,500
Midwest Pipe Co	Oil	500
Minwax Co.	Oil	100
Okonite Co.	Öil	15,000
Union Bldg. & Const. Co	Ŏil	600
Rahway:		
Nat'l. Pneumatic Co., Inc.	Oil	700
Royal Mfg. Co.	Oil	700 200
Uniform Chemical Products, Inc.	Oil	
Red Bank—Monmouth Consolidated Water Co.	Oil	250
Ridgefield—Dengen Commented Dengen Co.		50
Ridgefield—Denson Corrugated Paper Co	Oil	1,750
Rutherford Flintkote Co., Inc.	Oil	12,000
Rutherford—McCullough Wm. & Co Secaucus—Harson County Mental Disease Hos-	Oil	3,000
pital	Oil	1,750
pital South River—American Enameled Brick & File	On	1,700
Co	Oil	1,200
South River:		•
	0.1	1 550
Nat'l. Fireproofing Co	Oil	1,750
N. Y. & N. J. Clay Products Co	Oil	1,200
South River Brick Co.	Oil	1,200
Summit—Enterprise Laundry.	Oil	300
Trenton—Federated Metals Corp.	Oil	3,000
2101001 -G. D. Hill & UA	Oil	4,000
	Oil	1,450
ZIOTIONI—TREUDOX CO	Oil	3,000
	Oil	21,400
THOMAN THE VIDE AND HINT (Lines (1)	Oil	800
	Oil	175
dream rispestos Mig. Co	Oil	600
33—636		

	Displaced by	Actual ton- nage lost (Tons)
New York:		
Albany:		
Albany Felt Co	Oil	1,500
B. T. Babbitt, Inc.	Oil	2,000
A. P. W. Paper Co	Oil	700
Simmons Machine Coal Corp	Oil	350
Amsterdam: Ritter Chemical Co	Oil	700
Auburn:	Tiles	15 500
Bowen Products Co	Elec.	15,500
[fol. 923]		
Auburn:	Tal	0.000
Columbia Rope Co	Elec.	9,000
Henry & Allen	Elec.	4,000
Henry Forge & Coal Co., Inc.	$egin{array}{c} ext{Oil} \ ext{Elec.} \end{array}$	3,000 10,000
McIntosh Seymore Co	Oil	1,800
Batavia:	OII	1,000
Climax Corp	Oil	4,700
Doehler Dic. Casting Co	Oil	1,500
Massey-Harris-Harvester Co	Öil	5,000
Bath:		-,
Bath Water Works Co	Oil	700
Bay Shore—Bay Shore Hospital	Oil	350
Briarcliff Manor—Briarcliff Laundry	Oil	350
Brooklyn:		
Aaron Levy Co	Oil	1,000
Amer. Mfg. Co	Oil	1,500
Askell Safety Bay Co	Oil	1,500
Atlantic Tidewater Team	Oil	12,000
Bishoff, IncBrooklyn Fire Brick Work	Oil Oil	$\substack{150 \\ 2,500}$
Brooklyn Shield & Rubber Co	Oil	150
Chamber of Commerce Bldg	Oil	300
Chelsea Fibre Mills	Ōil	1,500
Doehler Die Casting Co	Oil	600
Doran Maraghrise Bronze Co	Oil	150
Fertel Baz Co., Dan W	Oil	600
Gair Realty Corp.	Oil	12,000
Greenpoint Terminal Co	Oil Oil	1,500 1,000
Hilo Varnish Co.	Oil	1,000
Hudson Brass Works	Oil	150
Humboldt Dye Works	Öil	50
Ingersoll, Oliver M	Oil	100
Lane, C. M. Lifeboat Co	Oil	50
Leibmann Brew. Co	Oil	24,000
Leviton Mfg. Co	Oil	150
Maltine Mfg. Co	Oil Oil	350 600
Moller & Schumann Co	Oil	1,000
Phoenix-Hermetic Co	Oil	1,200
Roberts Numbering Mach. Co	Ŏil	50
Sapolin Co	Oil	700
Sheldon Foster Co	Oil	2,000
S. S. Laundry Co	Oil	2,000
United Refrigerator Co	Oil	300
Victory Towel Sup. Co	Oil	500
York Ice Machinery Corp	Oil	100

PLAINTIFF'S EXHIBIT 32—COIL	unuea	
	Displaced by	Actual ton- nage lost (Tons)
Bronx:		
Great Atlantic & Pacific Tea Co Buchanan—Standard Textile Products Co Buffalo:	Oil Oil	$\underset{22,000}{\overset{100}{}}$
Atlas Steel Casting Co	Oil Oil Oil	1,500 500 1,000
[fol. 924]		
National Anilire & Chemical Co. Pierce Arrow Motor Car Co. Pratt & Letchworth. Rogers Brown Iron Co. Strong Steel Foundry Co. U. S. Aluminum Casting Co. Camillers Cutlery Co. Corning Glass Works.	Oil Oil Oil Oil Oil Oil Oil Oil Oil	2,500 6,500 500 1,000 1,000 1,500 1,400 28,500
Cortland County Fraction Co	Oil	15,000
Dansville: Blum Shoe Co. Jackson Health Resort. Owen Publishing Co. Power Specialty Co.	Elec. Elec. Elec. Oil	4,000 2,400 9,500 500
Depew: Gould Coupler Co	Oil	2,500
Endicott: Endicott Forgery & Mfg. Co. Union Forging Co. Elmira Heights—Amer. Bridge Co. Elmira: Elmira:	Oil Oil Oil	6,000 750 6,000
Eclipse Machine Co	Oil Elec. Oil	5,000 4,000 750
E. Hampton: Long Island Ice & Coal Corp. Westerhoff Hotel.	Oil Oil	250 125
Farmingdale—Industructo Glass CorpFarmington—Meadowbrook HospFulton—Victoria Paper Mills Co	Oil Oil Oil	200 1,500 3,000
Garden City—Doubleday Page & Co	Oil Natural Gas Elec.	1,750 $175,000$ $7,700$
Glen Cove—Knickerbocker Ice CoGreat Neck—Citizens Water Supply CoGreenport—Town of Greenport Water Co	Oil Oil Oil	550 700 1,200
Greenport—Sage Brick Co Huntington—New York Water Co Hornell—Merrill Silk Co	Oil Oil Elec.	600 2,400 4,500
Herkimer—Herkimer Fibre Co. Haverstraw—West Shore Gbs. Co. Haverstraw—Kay Laboratories.	Oil Oil Oil	$ \begin{array}{r} 3,000 \\ 450 \\ 1,450 \\ 3,000 \end{array} $
Ilion—Remington Co. Islys—Islys Sanatary Laundry Ithaca—Morse Chair Co. Jamaica—Merkel Inc.	Oil Oil Oil Oil	3,000 1,500 3,500 2,000
Jamaica—Park Laundry Co. Jamaica—Queens General Hospital. Johnson City—Endicott Johnson Co.	Oil Oil Elec.	2,500 20,000 70,000

	Displaced by	Actual ton- nage lost (Tons)
Johnson City—The Felters Co. LeRoy—Lapps Insulator Co. LeRoy—Rozerson Cold Storage. Lockport—Harrison Radiator Corp.	Elec. Oil Elec. Oil	15,000 9,700 1,800 5,000
[fol. 925]		
Lockport—Western Block Co Long Beach—Long Beach Laundry	Oil Oil	500 300
Long Island City: Atlantic Macoroni Co Proctor & Gamble Co Smith, Edw. & Co Long Lake—New York State Elec. & Gas Co	Oil Oil Oil Oil	1,500 180,000 500 400
Manhattan: Ansonia Hotel. Bowling Green Bldg. Columbia University. Equitable Life Ins. Co. Bldg. Equitable Office Bldg. Imperial Hotel. Macy, R. H. & Co. Metropolitan Life Ins. Bldg. Mt. Sinai Hospital. National Biscuit Co. N. Y. Edison Co. New York Times Bldg. Runkell Bros., Inc. St. Luke's Hospital. Singer Bldg. United Dressed Beef Co. Wilson & Co. Vanderbilt Hotel. Central Paper Box Co.	Oil Oil Oil Oil Oil Oil Oil Oil Oil Oil	350 1,200 1,750 875 3,000 500 1,200 3,000 500,000 700 300 200 175 4,000 3,000 600 700
Mineola—Knickerbocker Ice Co	Oil Oil Oil	250 300 700
Mt. Vernon: Mt. Vernon General Optical Co. No. Amer. Dye Corp Royal Cleaners & Dyers Co Willow Brook Dairy Co Mumford—Mumford Paper Mills.	Oil Oil Oil Oil Elec.	9,000 3,000 1,750 3,000 3,800
New York City—(Queens):		
Allied Die Casting Corp. B. Altman & Co. Andrews Lead Co. Anheuser-Busch Ice Cream Co. Bohacks, H. C. & Co. Bradley, Wm. & Son	Oil Oil Oil Oil Oil Oil	175 5,000 150 250 1,200 700
Breyer Ice Cream Co Dictograph Products Co. E. R. Durkee & Co. Four Hundred Madison Ave. Thos. Gregory. Hotel New Yorker	Oil Oil Oil Oil Oil Oil	350 175 1,450 Undetermined 150 16,000
A. C. Horn & Co. Larger, Ed. Printing Co. Le Blood-Schacht Trunk Co.	Oil Oil Oil	250 700 100

	Displaced by	Actual ton- nage lost (Tons)
[fol. 926]		
LeBlord-Schacht Trunk Co. Leowers-Gambrimus Brew. Co. Merit Hosiery Co. National Bridge Works. N. Y. Edison Co. Nichols Copper Co. Paramet Chemical Corp. Patterson-Sargent Co. Peerless Glass Co. Peil Bros. Brew. Co. Pittsburgh Plate Glass Co. Steel & Tubes, Inc. Trazeser, John. West Disinfecting Co. White Co. Whitestone Dye Works.	Oil Oil Oil Elec. Oil Oil Oil Oil Oil Oil Oil Oil Oil Oil	100 3,600 175 700 500,000 17,800 175 350 250 3,000 175 300 600 700 600 700
Newark—Bloomer Bros. Co. Northport—Long Island Lighting Co. Northport—Northport Water Works. No. Towanda—Buffalo Bolt Co. Olean—Acme Glass Co. Oneida—National Casket Co.	Oil Oil Oil Oil Oil Elec.	4,000 49,000 700 4,500 8,000 Undetermined
Oswego—Universal Pressing Machine Co. Ozone Park—Columbia Wax Works. Painted Post—Ingersoll Rand Co. Patchogue—Knickerbocker Ice Co. Pearl River—Dexter Folder Co. Peekskill—Westchester Lighting Co. Pelham—Knickerbocker Ice Co.	Oil Oil Oil Oil Oil Oil Oil	300 2,000 15,000 350 2,100 1,600 3,000
Perry—Robinson Cutlery Co Port Chester—Russell, Burdsall & Ward Bolt & Nut Co Rensselaer—F. C. Huyck & Son. Richmond—American Dork Co Richmond:	Elec. Oil Oil Oil	1,200 6,000 3,000 350
Murals Co., Inc. Proctor & Gamble Co. Rubsain & Hermans U. S. Gypsum Co. Rochester—General Ry. Signal Co. Rochester—F. H. Symington Co. Rockville Center—Village of Rockville Center. Rome—Northern New York Utilities. Rome—Rome Brass & Copper Co. Rome—Rome Turney Radiator Co. Roseton—Jova Brick Works. Roseton—Jova Brick Works. Roseton—Roseton Brick Corp. Salamanca—Union Tanning Co. Saranac Lake. Shortsville—Paper Machine Co.	Oil Oil Oil Oil Oil Oil Oil Oil Oil Oil	350 125,000 2,000 500 1,450 500 6,500 175 350 3,000 1,750 500 350 3,000
Sodus—Grasselli Chemical Co Southampton—Edwards Laundry Southampton Ice Co [fol. 927] Southampton—Southampton Hospital	Oil Oil Oil	350 100 300
So. Bethlehem—Callaham Road Improvement	Oil	1,450

1 LAINTIFF S EXHIBIT 52—Continued		
	Displaced by	Actual ton- nage lost (Tons)
Spring Valley—S. A. Stevens & Son	Oil Oil	250 21,000
Onondaza Silk Co	Oil	350
Prosperity Co	Oil	700
Syracuse San-Equip, Inc	Oil Oil	600 6,200
Syracuse Lighting Co	Oil	21,000
Utica—Masonic Home	Oil	6,500
Utica—Richardson & Boynton Victor—Victor Flour Mills	Oil Oil	1,400 500
Watertown—Northern New York Utilities Corp	Oil	50
Wellsville—Sinclair Refining Co	Natural Gas	45,000
North Carolina:		
Ashville—Carolina Power & Light Co	Elec.	20,000
Burnsville—Northwestern Carolina Utilities	Oil Floo	1,200
Caroleen—Henrietta Mills	$egin{array}{c} egin{array}{c} egin{array}$	$10,000 \\ 12,000$
Charlotte—Southern Public Utilities Co	Oil	3,200
Cramerton—Cramerton Mills	$\mathbf{Elec}.$	15,000
Durham: Durham Hosiery Mills	Elec.	10.000
Imperial Tobacco Co.	Oil	$\frac{10,000}{3,100}$
Watts Hospital	Oil	3,000
Edenton—Edenton Cotton Mills Elizabeth City—Foreman Blades Co	Elec. Oil	6,000
Greensboro—North Carolina Pub. Service Co	Oil	1,000 1,600
Greystone—Raleigh Granite Co	Elec.	500
Hickery—Piedmont Utility Co	Oil	200
Kannapapolis—Cannon MillsLincolnton—Lincoln Milling Co	$egin{array}{c} egin{array}{c} egin{array}$	45,000 500
Louisburg Light & Water Co	Oil	360
Monroe—Henderson Roller Mill Co	Elec.	500
Oxford—Oxford Cotton Mills	Elec. Oil	1,000 600
Sanford—Southern Milling Co	Õil	120
Statesville—Nat'l. Utilities of No. Carolina	Oil	400
Wake Forest—Royal Cotton Mills	Oil Oil	1,200 360
Wilmington—Southport Fisheries	Ŏil	10,000
Winston-Salem—Forsythe Roller Mill Co	Elec.	1,000
Winston-Salem—North Carolina Pub. Utilities Winston-Salem—So. Side Roller Mills	Oil Elec.	200 1,500
	2200.	2,000
Ohio:	Oil	250
Ashland—Union Malleable Mfg. Co Findlay—Nat'l. Refining Co	Oil	15,000
Findlay—Nat'l. Refining Co Forstoria—Seneca Wire & Mfg. Co	Oil	1,500
Lima—The Solar Refining Co	Oil	90,000
Merriton—Interstate Tissue Co	Elec. Oil	6,000 30,000
Toledo—Libbey-Owens Ford Plate Glass Co	Artificial Gas	70,000
Toledo—Sun Oil Co	Oil	30,000
[fol. 928]		
Pennsylvania:		
Allentown—Allentown Rapid Service Co	Elec.	4,000
Ambler—Comm. Paint Co	Oil Oil	1,000 500
Auburn—Artistic Knitting Mills	OII	500

FLAINTIFF'S EXHIBIT 52—COI	itinuea	
	Displaced by	Actual ton- nage lost (Tons)
Auburn—Delaware Seamless Tube Co Bridgeport—York Heating & Ventilating Co	Oil Oil	200 150
Columbia—Manor Mfg. Co	Oil Oil	500 300
Coatesville—Lukens Steel Co	Oil	40,000
Frankfort—The Barrett Co	Oil	26,000
Larsdale—A. C. Godshall & Co	Oil	1,800
Manheim—Hershey Mach. & Fdry. Co Morristown—McCarter Iron Works	Oil	1,000
Nazareth—Nazareth Paper Box Co	Oil Oil	500 800
Norristown—Ford & Kendig Co	Öil	3,500
Oaks—Campbell Hosiery Co	Oil	500
Oaks—Detco Mfg. Co	Oil	500
Philadelphia:		
Collins & Aikman	Oil	25,000
Cornung Brewery Co	Oil	2,000
Delaney & Co	Oil	8,000
Depont Co	Oil Oil	60,000 3,000
Felin & Co., John J	Oil	3,000
Ford & Kendig Co	Oil	4,000
Gotham Silk Hosiery Co	Elec.	500
Hess Bright Mfg. Co	Oil	1,200
Hubschumann, H. Hulton Dyeing Co.	Oil Oil	$1,200 \\ 1,500$
Martin, L. Co	Ŏil	2,500
Moore & White Co	\mathbf{E} lec.	600
Phila. Storage & Battery Co	Elec.	2,500
Morganthaler Bros	Elec. Oil	10,000 5,000
Mazer Paper Co	Oil	500
Phila. Box & Board (Fibre) Co	Oil	12,000
Watson, C. B	Oil	1,000
Phoenixville: Phoenix Iron Co	Oil	60,000
	On	00,000
Primos:	Oil	500
Equipment Corp. of America	Oil	500
	011	-
Ridgeway: Ridgeway Light & Power Co	Elec.	50,000
Roversford—Diamond Glass Co	Oil	2,000
Royersford—Royersford Fdry & Machine Co	Elec.	1,500
Royersford—Royersford Needle Works	Oil	1,000
Titusville—Crew Lewick Co	Oil Elec.	12,000 800
York—York Ice & Milk Co.	Elec.	500
Westfield—PennaEberle Tanning Co	Natural Gas	8,000
Wird Gap	${f Elec}.$	1,500
Rhode Island:		
Albion—Valley Falls Co.	Elec.	5,000
Anthony—Coventry Co	Elec.	2,500
[fol. 929]		
Apponaug:		
Appanaug Co	Oil	15,000
Apponaug Print Works	Oil	500 2 000
Narragansett Cotton Mills	Oil	3,000

LAINTIFF S MAHIBIT 02—0011	unueu	
	Displaced	Actual ton- nage lost
A = h =	by	(Tons)
Ashaway: Ashaway Line & Twine Co	Oil	1,000
Ashton—Lonsdale	Elec.	3,000
Auburn—General Fire Ext. Co.	Oil	3,500
Auburn—Universal Wind Machine	Õil	10,000
Berkelev—Berkelev Mills	Elec.	3,500
Bristol—Cransted Worsted Mills	Oil	2,000
Bristol—National India Rubber Co	Oil	8,000
Centerdale—Centerdale Worsted Mills	Oil	2,000
Central Falls—Weypoyset Mfg. Co	Oil	2,500
Cranston—Imperial Print & Fin. Co	Oil	2,500
Darlington—American Elec. Works	Oil	20,000
E. Greenwich—Boston Wire Stitcher Co	Oil	1,500
E. Greenwich:	T31	=00
East Greenwich Water Supply Co	Elec.	700
Greenwich Bleachery Co	Oil	3,000
Greenwich Mills, Elec. 2,000	Oil	5,000
Providence Drysalters Co	Oil Oil	1,500
Esmond—Esmond Mills, Inc	Oil	8,000 4,500
Fiskeville—Interlaken Mills Forestdale—Branch River Combing Co		4,000
Greystone—Benn Corp., Jos	Oil	10,000
Hillsgrove—Elizabeth Mills	Oil	1,000
Hillsgrove—R. I. Malleable Iron Works		500
Hope—Hope Co	Oil	4,000
Jamestown—Jamestown & Bristol Ferry Co	Oil	1,500
Lymansville—Lymansville Co	Oil	5,000
Manton—Joslin Mfg. Co	Oil	1,000
Manville—Manville Jenkes Co	Oil	15,000
Narragansett—Narragansett Elec. St. Co	Oil	250,000
No. Grosvenondale—Grosvenondale Co	Oil	10,000
Oakland—Mapleville Mill	Oil	4,000
Olneyville—Crown Worsted Co	Oil	3,000
Olneyville—R. I. Wool Combing Co	Oil Oil	2,000
Pawtucket—Acme Finishing Co	On	5,000
Pawtucket:	TPI - a	F00
Attleboro Braiding Co	Elec. Elec.	500
Blackstone Stocking Co	Oil	500 1,000
Cadillac Silk Co	Oil	6,000
Coats, J. & P	Oil	3,000
Comrad Mfg. Co	Oil	500
Corning Glass Works, Inc.	Ŏil	1,000
Crosby Co., J. D.	Öil	500
Crown Mfg. Co	Oil	3,500
Davis-Jones Insulated Wire Co	Oil	500
Davis Mfg. Co., Frank	Oil	1,000
Draper Co., J. O	Oil	500
Eureka Dyeing & Bleaching Co	Oil	1,500
General Cable Co	Oil	11,500
fol. 930]		
Hallowell Co	Oil	1,000
Hallowell Worsted Mfg. Co	Oil	1,000
Hope Bedding Co	Oil	7,000
Ideal Thread Co	Elec.	500
Loraine Mfg. Co	Oil	1,000
Lumb Knitting Co	Oil	1,000
Manville Jenckes Co	Oil	5,000
Mars Grand Rug Co	Oil	500

PLAINTIFF'S EXHIBIT 32—Con	unuea	
	701 1: 1	Actual ton-
	Displaced	nage lost
	by	(Tons)
Moore Fabric Co	Oil	1,000
New England Machine & Elec. Co	Elec. Elec.	500
Pawtucket Hosiery Co Phillips Wire Co	Oil	1,000 500
Potter & Johnson Machine Co	Oil	700
Potter Fine Spinners, Inc.	Öil	1,000
Pressed Metal Co	Oil	1,500
Royal Weaving Co	Oil	500
Carl Schoen Silk Corp	Oil	500
Shannock Narrow Fabric Co	Oil	1,000
Union Wadding Co	Oil	500
U. S. Knitting Co	Oil	1,500
Very Small Mills	Oil Oil	10,000
Waypoysett Mfg. Co	Oil	$15,000 \\ 1,000$
Woodlawn Finishing Co.	Oil	1,500
Peacedale—Peacedale Mills	Öil	5,000
Phenix—Phenix Lace Mills	Elec.	1,500
Phenix—Phenix Mill	Elec.	2,500
Phillipsdale—Amer. Electrical Works	Oil	500
Phillipsdale:		
Glenlyn Finishing Co	Oil	4,000
Rumford Chemical Works	Oil	3,000
Rumford Textile Co	Oil	2,000
Sayles Finishing Co	Oil	15,000
Sunlight Chemical Co	Oil	1,000
Wasburn Wire Co	Oil	5,000
Providence:	0.1	700
Wayland Manor	Oil Oil	700 500
Waite Thresher Co	Oil	250
Wanskuck	Oil	2,000
U. S. Gutta Percha Paint Co	Oil	3,500
Universal Color Chemical Co	Öil	500
Universal Winding Co	Oil	1,000
United Wire & Supply Co	${f Elec}.$	500
United Braid & Lace Co	Elec.	1,000
Union Wadding Co	Oil	3,000
Union Hand Laundry	Oil	500
Title Guarantee Bldg	Oil Oil	$\frac{300}{1,200}$
Turks Head Bldg Textile Finishing Co	Oil	1,500
T. W. Foster & Co.	Oil	1,000
Taylor Symonds Co	Öil	150
Swiss Cleansing Co	Oil	500
[fol. 931]		
Studley Bldg.—Providence	Oil	300
Providence:	On	300
Starkweather & Shepley Co	Oil	200
Sherwood Block.	Oil	200
Shepard Co	Ŏil	1,500
St. Joseph Hospital	Oil	1,000
St. Peter & Paul Cathedral	Oil	1,500
Sayles Finishing Plants	Oil	75,000
Reynolds Block	Oil	100
Revere Rubber Co.	Oil	40,000
Rhode Island School of Design	Oil	1,500 200
Rhode Island Catholic Orphan Asylum Rhode Island Tool Co	Oil Oil	2,000
TOUR OUT OUT OUT	On	2,000

	Displaced by	Actual ton- nage lost (Tons)
Rhode Island New Co. Bldgs	Oil	150
Rhode Island Insurance Co	Öil	500
Rhode Island Yarn Co	Oil	1,000
Rhode Island Hospital Trust Bldg	Oil	2,000
Providence Lying-in Hospital	Oil	1,000
Providence Public Library Bldg	Oil	300
Providence Public Market Bldg	Oil	300
Providence & Washington Ins. Co	Oil	200
Providence Institution for Svgs	Oil	200
Providence City Schools Dept	Oil	500
Providence Chamber of Commerce		75
Providence Journal	Oil	500
Providence Combing Co	Oil	1,500
Phenix Bldg	Oil	200
Pilgrim Plush Co	Oil Oil	1,000
Peoples Savings Bank	Oil	150 300
Paye & Baker Co	Oil	1,500
Paragon Worsted CoParamount Theatre	Oil	300
Old Colony Co-op. Bank		300
Ochee Spring Water Co	Öil	75
Outlet Co	Ŏil	7,000
Ostby & Barton Co	A	1,000
Nicholson File Co	Oil	3,500
N. England Hosiery Co	Elec.	500
N. England Butt Co	Oil	500
Nat'l & Providence Mills	Oil	2,000
Narragansett Milling Co	Oil	1,400
Narragansett Lbr. Co	Oil	75,000
Narragansett Hotel	Qil	1,000
Narragansett Elec. Light Co	Oil	225,000
Morris Plan Co. Bldg		100
Modern Theatre		150
Minden Apts	Oil	300
Manufacturers Bldg		3,000
Majestic Theatre	Oil	300
Mac Rae, F.	Oil	200
M. & F. Worsted Mills	Oil Oil	2,500
Lymansville Co	Oil	5,000 500
London & Co Leonard-Rootes Co	Elec.	500
Leonard-Rootes Co	Diec.	500
[fol. 932]		
Loew Estate Bldgs	Oil	300
Loews State Theatre	Ŏil	600
Jno. B. Lewis, Inc.	Oil	3,000
Lapham Bldg	Öil	600
Lauderdale Bldgs	Öil	1,000
Kresge Bldg	~	200
Koppleman, Jos. E	Oil	5,000
Kinsley Bldg	Oil	300
Kenney Mfg. Co	Oil	1,000
Kelley Ice Cream Co		500
Johnson, Oliver & Co		150
International Braid Co		1,000
Industrial Trust Bldg		4,000
Irons & Russell Building		500
Improved Seamless Wire Co		300
Imperial Printing & Finishing Co		500
Hawarth, Albert	~	100 6,000
Hope Webbing Co	On	0,000

	Displaced by	Actual ton- nage lost (Tons)
Hope Theatre	Oil	150
Hoppin Homestead Bldg	Ŏil	200
Home for Aged Women	Oil	150
Home for Aged Men & Couples	Oil Oil	300 1,500
High Schools	Oil	500
Grosvenordale Company	Oil	10,000
Grosvenor Bldg	Oil	1,200
Greene, R. L. Co	Oil Oil	$100 \\ 1,500$
Glendale Elastic Fabric Co	Oil	500
General Fire Ext. Co	Oil	5,000
General Baking Co	Oil	500
Franklin Process Co	Oil Oil	$\frac{5,000}{1,000}$
Franklin Hotel	Oil	150
Fays Theatre	Oil	250
Everett & Barren Co	Oil	500
Elks Bldg	Oil Oil	$\begin{array}{c} 250 \\ 3,000 \end{array}$
Eagle Mills Dutton Co., M. W	Oil	500
Dorset Woolen Co	Ŏil	2,500
Doran Bldg	$\underline{\mathbf{O}}$ il	700
Dolbey Ice Cream Co	Elec.	500 1,500
Daval Rubber Co	Elec. Oil	3,000
Crown Hotel	Ŏil	2,000
Conrad Bldg	Oil	150
Colonial Knife Co	Oil	500
Coated Textile Co	Oil Oil	$^{2,000}_{200}$
City Hall.	Ŏil	300
Churchill House	Oil	100
Cherry & Webb Co	Oil	300
Capitol	Oil	150
[fol. 933]		
Calvery Baptist Church	Oil	150
Caeser Misch	Oil	200
Cady Moving & Storage Co	Oil	100
Burrill Bldg Budlong Mfg. Co	$egin{array}{c} ext{Oil} \ ext{Elec.} \end{array}$	400 500
Brownell Mach. Co.	0	1,000
Brown University	Oil	4,500
Boston Store		1,500
Bodell Bldg	Oil Oil	$\begin{array}{c} 200 \\ 2,000 \end{array}$
Biltmore HotelBeuna Vista Apts	Oil	300
Berkander, Geo. F	Oil	500
Baird-North Co	Oil	200
Amer. Woolen Co	Oil Oil	4,000 3,000
Amer. Silk Spinning Co	Oil	2,500
Allen Hotel	Ŏil	150
Albee Theatre	Oil	400
River Point—Rapperport Finishing Co	Oil Oil	6,000 5,000
Rumford—Rumford Chem. CoStillwater—Centerdale Worsted Mills	Oil Oil	4,500
Slatersville—Branch River Wool Combing Co.	Ŏil	3,000
Saylesville—Springdale Finishing Co	Oil	10,000

	Displaced by	Actual ton- nage lost (Tons)
Saylesville—Saylesville Finishing Plants. Valley Falls—Crown Mfg. Co. Valley Falls—Hindley Mfg. Co. Valley Falls—Standard Nut & Bolt Co. Warren—Consolidated Thread Mills. Warren—Mt. Hope Mills W. Barrington—Collins & Aikman Corp. Westerly—Lorraine Mfg. Co. Westerly—New England Silk Mills. W. Warwick—Pawtuxet Valley Dyeing Co.	Oil Oil Oil Elec. Oil Oil Oil Oil	4,500 1,500 250 2,000 1,500 3,500 3,000 5,000 1,500 2,500
Woonsocket: Amer. Paper Tube Co. Branch River Wool Comb Co. Crown Piece Dye Works. Desurmont Worsted Co. Falls Yarn Mill. Florence Dye Works. French Worsted Mills. Guerin Mills. Manville Jenckes Co. Nyanza Mills. Philmont Worsted Co. River Spinning Co. Sydney Worsted Co. Taft Pierce Mfg. Co. Very Small Mills (Prov.) Woonsocket Brush Co. Woonsocket Dye & Blchy. Co. Woonsocket Falls Mills.	Oil Oil Oil Oil Oil Oil Oil Oil Oil Oil-Elec Oil Oil Oil Oil Oil Oil Oil Oil Oil Oil	5,000 3,500 1,500 7,000 1,000 3,500 3,500 10,000 1,000 1,500 3,500 1,500 3,500 1,500 1,500 3,500
[fol. 934] Woonsocket Mach. & Press Co	Oil	500
Woonsocket Napping Machine Co	Oil Oil	1,000 1,000
South Carolina: Anderson—Gas & Utility Co. Buffalo—Union Buffalo Mills. Charleston—Southern Ice. Charleston—United Fruit Co. Clinton—Clinton Cotton Mills. Columbia—So. Cotton Oil Co. Greenville—Southern Public Utilities. Greenville—Woodside Cotton Mill. Hartsville—Hartsville Oil Mill. Lancaster—Lancaster Cotton Mills Rocky Hill—Rocky Hill Gas Co.	Oil Elec. Oil Elec. Oil Elec. Elec. Elec. Elec. Elec.	650 12,000 8,000 12,000 10,000 60,000 150 30,000 12,000 15,000 300
South Dakota: Belle-Fourche-Utah-Idaho Sugar Co	Natural Gas Natural Gas Natural Gas	15,000 20,000 28,000
Tennessee:		•
Memphis: Baptist Hospital. Chisca Hotel. Commercial Chemical Co. Gayoso Hotel.	Gas Gas Gas Gas	2,500 5,500 2,500 5,500

	Displaced by	Actual ton- nage lost (Tons)
Memphis Steam Laundry Memphis Baking Co Oakville Sanatorium Oliver—Finnie Co Peabody Hotel Veteran Hospital West Tenn. State Teachers College	Gas Gas Gas Gas Gas Gas	5,500 3,000 2,000 2,500 9,000 2,250 2,500
Vermont: Bristol—Draker Smith & Co Bristol—Vermont Box Co Dauby—Whiting Milk Co Gilman—Gilman Paper Co Hydeville—Hydeville Cons. Slate Works Ludlow—Town of Ludlow Nutland—Clarendon Marble Co Nutland—Eastman Marble Co Manchester Marble Co Poultney—Auld & Conger Co Poultney—General Slate Co Poultney—Geriffiths Slate Co	Elec. Elec. Elec. Elec. Oil Elec. Elec. Elec. Elec. Elec. Elec. Elec.	500 1,500 20,000 2,000 2,000 1,500 1,000 1,000 1,500 500
Poultney: Manhattan Shirt Co. N. Y. Cons. Slate Co. Owens Slate Co. United Slate Co. Williams Machine Co. St. Johns—Carrie Maple Sugar Co. Springfield: Bryant Company.	Elec. Elec. Elec. Elec. Wood	1,350 1,000 500 500 250 3,000
[fol. 935]		
Springfield: Jones & Lamson Machine Co Lovejoy Tool Co White River Junction—Grafton Co. Elec. Co Winooski—Green Mt. Power Co Winooski—Richard Mfg. Co	Oil Oil Elec. Oil Oil	1,000 500 1,500 3,500 500
Virginia: Alexandria—Mutual Ice Co Berryville—Robinson Ice & Cold Storage Corp Eieldvale—Carolina Cotton & Woolen Mills Harrisonburg—Shenandoah Mfg. Co Norfolk—Industries, Towboats, Etc Norfolk—Wood Towing Co Winchester—Robinson Ice & Cold Storage Corp	Elec. Elec. Elec. Oil Oil Elec.	600 600 8,000 300 100,000 8,000 1,500
West Virginia: Clarksburg: Adamston Flat Glass Co. Flat Glass Spec. Co. Hazel Atlas Glass Co. Pittsburgh Plate Glass Co. Rolland Glass Co. Charlestown—Robinson Ice & C. S. Co. Crow Summit—Eureka Stone Co. Fairmont—Fairmont Aluminum Co. Fairmont—Monongah Glass Co. Hastings—Hope National Gas Co.	Nat'l Gas Gas Nat'l Gas Nat'l Gas Nat'l Gas Elec. Gas Gas Gas Gas	32,000 10,000 Undetermined 40,000 20,000 1,800 350 2,000 20,000 60,000

	Displaced by	Actual ton- nage lost (Tons)
Hope—Hope National Gas Co	Nat'l Gas	Undetermined
Hoult—Hope National Gas Co	Gas	10,000
Moorefield—Union Tanning Co	Wood	1,500
Moundsville—U. S. Stamping Co	\mathbf{Gas}	12,000
New Martinsville—New Martinsville Glass Mfg.Co.	Nat'l Gas	5,000
Paden City—Paden City Glass Mfg. Co	Gas	30,000
Paden City—Paden City Pottery Co	\mathbf{Gas}	1,200
Paden City—Paul Wissmach	Gas	20,000
Parkersburg Iron & Steel Co	Oil & Gas	7,000
Sistersville—Scoby Sheet Glass Co	Gas	18,000
St. Marys—Ohio Valley Refining Co	Gas	10,000

[fol. 936]

Supplement No. 1 to

Statement Showing Some Examples of Coal Tonnage Lost to Competing Forms of Fuels or Energy

Arizona, Colorado, New Mexico and Texas:

The Swastika Fuel Company, Raton, New Mexico, estimates 50,000 tons annually lost through retail coal trade account intrusion of gas and low price fuel oil, and 500,000 tons annually of railway fuel tonnage account railroads using fuel oil.

Arizona, Lower California and Mexico:

Coke tonnage lost to natural gas equivalent to 450,000 tons of coal annually.

	Displaced by	Actual Tonnage lost (Tons)
Colorado:	3	
Fort Lyon—Veterans Bureau Hospital La Junta—Mennonite Sanatorium La Junta—Santa Fe Railway Power Plant Lamar—Municipal Power Plant Rocky Ford—American Beet Sugar Co	Natural Gas Natural Gas Natural Gas Natural Gas Natural Gas	9,000 500 25,000 4,500 15,000
Kentucky:		
Louisville—Grocers Ice Company Louisville—Louisville Water Company Louisville—Merchants Ice & Cold Stor.	Hydro-Elec. Hydro-Elec.	7,800 18,000
Co Newport—Andrews Steel Company	Hydro-Elec. Natural Gas Oil	$26,000 \\ 22,500 \\ 2,500$
New Jersey:	011	2,000
Camden—Camden County Institutions.	Oil	11,000
New Mexico:		
Albuquerque—Electric Plant Clovis—Electric Power Plant Clovis—Railways Ice Company Deming—Deming Ice & Electric Co Rosewell—Rosewell Gas & Electric Com-	Natural Gas Natural Gas Natural Gas Natural Gas	3,000 6,000 2,500 7,500
pany Rosewell—New Mexico Military Institute Santa Fe—Electric & Power Plant Tucumcari—Power Plant Numerous small plants	Natural Gas Natural Gas Natural Gas Fuel Oil Natural Gas	6,000 6,000 6,000 6,000 1,000
New York:		
Binghamton—Associated Gas & Elec. Co.	Natural Gas	50,000/60,000

	Displaced by	Actual ton- nage lost (Tons)
Texas:		
Amarillo—Light, Power & Street Rwy. Co. Dalhart—Dalhart Ice & Elec. Co El Paso—Beaumont Hospital (U. S. Army)	Natural Gas Fuel Oil Natural Gas	10,000 6,000 2,500
El l'aso Deadmont Hospital (C. S. Almy)	naugiai Gas	2,000
El Paso—El Paso Brick Company International Brick Company Consumers Ice Company El Paso Ice & Refrigerator Co Numerous cotton gins and oil mills in	Nat. Gas & Oil	10,000
West Texas	Nat. Gas & Oil	5,000
El Paso—Southwestern Portland Cement Co	Natural Gas	50,000
Fort Bliss—U. S. Army Post	Natural Gas	6,000
Plants	Natural Gas	5,000
[f-] 007]		
[fol. 937]		
Fort Dodge—Certainteed Products Co	Natural Gas	10,000
Fort Dodge—Northwestern Mfg. Co.	Natural Gas	16,500
Fort Dodge—U. S. Gypsum Company.	Natural Gas	40,000
Fort Dodge—Certainteed Products Co Fort Dodge—Northwestern Mfg. Co Fort Dodge—U. S. Gypsum Company Fort Dodge—Universal Gypsum & Lime	210002102 (100	20,000
_ Co	Natural Gas	10,000
Fort Dodge—Wasson Plaster Company	Natural Gas	3,000
Fort Dodge—Wasson Plaster Company Mason City—Hanford Hotel	Natural Gas	1,250
Mason City—Jacob E. Docker & Sons Mason City—Lehigh Portland Cement Co.	Natural Gas	18,000
Mason City—Lehigh Portland Cement Co	Natural Gas	112,000
Mason City—Mason City Brick & Tile Co.	Natural Gas	65,000
Mason City—N. W. States Port. Cement	Natural Gas	160,000
Co	Natural Gas	,
Co	Natural Gas	35,000
Muscatine—H. J. Heinz Company	Natural Gas	7,000
Muscatine—Iowa Electric Company	Natural Gas	7,000 2,100
Muscatine—Public Schools	Natural Gas	2,100
Muscatine—Public Schools Red Oak—Iowa Nebraska Light & Power		·
Co	Natural Gas	2,000
CoRed Oak—Small Municipal Plants Shenandoah—Iowa Nebraska Light &	Oil	15,000
Power Co	Natural Gas	2,000
Power Co	Natural Gas	$\frac{2,000}{35,500}$
Sioux City—Cudahy Packing Company	Natural Gas	28,000
Sioux City—Hanford Produce Company.	Natural Gas	14,000
Sioux City—Hanford Produce Company. Sioux City—Sioux City Brick & Tile Co.	Natural Gas	2,000
Sioux City—Sioux City Gas & Electric Co.	Natural Gas	82,000
Sioux City—Sioux City Gas & Electric Co. Sioux City—Swift & Company	Natural Gas	22,500
		,
Kentucky:		
Danville—Anderson & Spillman	$\mathbf{Hydro} ext{-}\mathbf{Elect}.$	600
	-	
Maryland: Baltimore—Davis Paint Company	Oil	600
Baltimore—Davis Paint Company Baltimore—National Enameling & Stamp-		
ing CoBaltimore—A. Gross Candle Co	Oil	Undetermined
Baltimore—A. Gross Candle Co	Oil	Undetermined
Baltimore—U. S. Industrial Alcohol		
Company	Oil	100,000
Michigan:		
Monroe—Amendt Milling Company	Oil	2,500

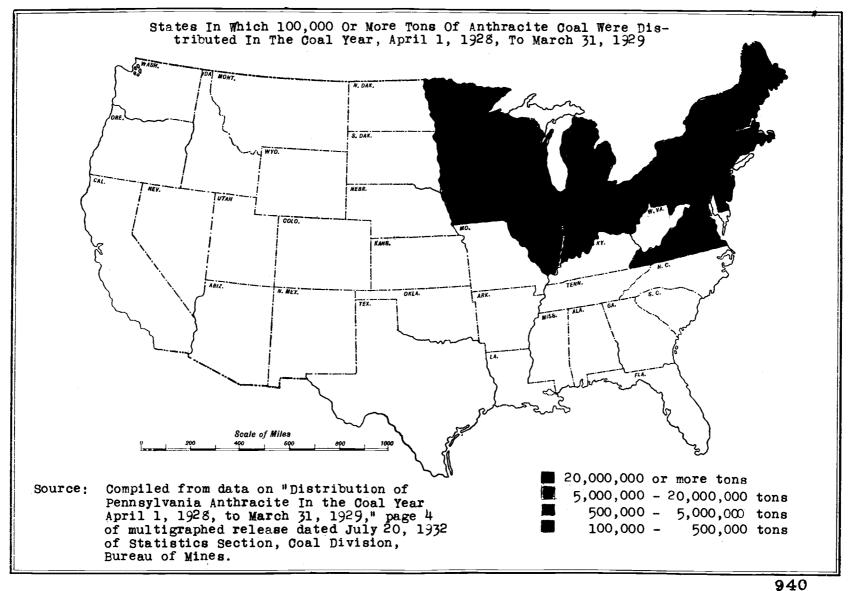
	Displaced by	Actual ton- nage lost (Tons)
Mississippi:		
Bay Saint Louis—Bay Saint Louis Ice & Bottling WorksBrookhaven—Brookhaven Pressed Brick	Electric	1,000
& Mfg. Co	Natural Gas Natural Gas	4,000 7,500
Co	Natural Gas Elec. Gen. by	3,500
Starkville—Mississippi A. & M. College. Starkville—J. W. Sanders Cotton Mills.	Natural Gas Natural Gas Natural Gas	6,000 8,200 2,250
Missouri:		
St. Joseph—U. S. Gypsum Co St. Joseph—Jersey Cereal Company	Natural Gas Natural Gas	Undetermined Undetermined
New Jersey:		
Bayway—Standard Oil Co. of New Jersey Hillside—Bristol Myers Co Jersey City—Cudahy Packing Company Manville—Johns Manville Company	Oil Oil Oil	100,000 4,000 4,200
Manville—Johns Manville Company	Oil	40,000
Newark—Clark Thread Company	Oil	5,000
New Brunswick—Carrier Engineering Corporation	Oil	1,000
[fol. 938]		
N VI.		
New York: Bass—Bass Electric Company Binghamton—Associated Gas & Electric	Natural Gas	4,000
Co	Natural Gas Oil	50,000/60,000 2,000
pany	Natural Gas	120,000
Co	Natural Gas	180,000
CoSyracuse—Niagara Hudson Company	Natural Gas	90,000
ovracuse—semel solvay Company	Natural Gas	285,000
Troy—Burden Iron Company	Oil	5,000
Whitesters I am Island West Stores	Natural Gas	50,000
Whitestone—Long Island, Kent Stores, Inc	Oil	1,000
Ohio:		
Bainbridge—Bainbridge Light & Power		
Company	Oil	1, 40 0
Charden—General Electric Company	Natural Gas	15,000
Niles—General Electric Company	Natural Gas	12,000
Oklahoma: Harrah—Oklahoma Gas & Electric Co	Oil & Nat. Gas	45,000
Pennsylvania:		
Austin—Bayless Pulp & Paper Co	Natural Gas	10,000
Galeton—City of Galeton		1.250
Elkland—Elkland Leather Co	Natural Gas	3,500
Genessee—Genessee Chemical Co	Natural Gas	3,000
Philadelphia—Allman Nurseries	Oil	200
Philadelphia—A. Theodore Abbot	Electric	2,000

	Displaced by	Actual ton- nage lost (Tons)
Philadelphia—Yale & Towne Mfg. Co Westfield—Eberle Tanning Co Westfield—Renken Dairy Co	Natural Gas	2,000 5,000 1,000
Rhode Island: Bradford—Bradford Dyeing Association.	Oil	7,500
South Carolina: Greenville—Brandon Corporation Pelzer—Pelzer Manufacturing Co	Electric Electric	15,000/18,000 18,000
Electrification of the Pennsylvania Railroad		Undetermined
fol. 939] Supplement No.	2 to	
Statement Showing Some Examples of Coal of Fuels or Ene	_	ompeting Forms
(Very recent displace	ements)	
State and City	Displaced by	Actual tonnage lost (tons)
Alabama:		
Mobile—Mobile Paper Mill Tuskegee—U. S. Veterans Facility		6,000 6,500
Connecticut: Hartford—Hartford Electric Light Co	Oil	125,000
Delaware: Wilmington—National Vulcanized Fiber Co	Oil	12,000
Georgia:		,
Atlanta—Federal Penitentiary	Natural Gas Natural Gas Natural Gas	16,000 6,000 6,000 Several
Illlinois:	5. <u>1.</u>	thousand
Chicago—Republic Steel Co	Natural Gas Oil Natural Gas Natural Gas	31,000 5,500 200,000 110,000 15,000
Ottawa—Chicago Retort & Fire Brick Co. Ottawa—Libbey Owens Ford Company. Marseilles—Certainteed Products Co Chicago Heights—Columbia Tool Steel	Natural Gas Natural Gas Natural Gas	5,000/10,000 70,000 25,000
CoOttawa—Federal Plate Glass CoStreator—Owens Illinois Glass Co	Natural Gas Natural Gas Natural Gas	2,000 100,000 75,000
Iowa:		•
Atlantic—Iowa Electric Company Britt—Central States Electric Co. Cedar Rapids—Montrose Hotel Cedar Rapids—Penick & Ford	Natural Gas Natural Gas Natural Gas Natural Gas	1,500 1,200 15,000 120,000
34—636		

	Displaced by	Actual ton- nage lost (Tons)
Cedar Rapids—Sinclair Packing Co	Natural Gas	30,000
Cedar Rapids—T. M. Sinclair, Ltd	Natural Gas	60,000
Cedar Rapids—Three Minute Cereal Co.	Natural Gas	10,000
Council Bluffs—Council Bluffs Gas Co	Natural Gas	4,000
Council Bluffs-Jenny Edmiston Hos-		,
pital	Natural Gas	3.200
Council Bluffs—Iowa School for the Deaf.	Natural Gas	3,600
Council Bluffs—Lainson, Florist	Natural Gas	3,750
Council Bluffs—Sisters of Mercy	Natural Gas	1,500
Council Bluffs—J. F. Wilcox & Son	Natural Gas	9,000
Davenport—American Service Company.	Natural Gas	3,500
Davenport—Dewey Portland Cement		•
Company	Natural Gas	150,000
Davenport—Kohrs Packing Company	Natural Gas	5,000
Davenport—Western Flour Mills Co	Natural Gas	5,000
Davenport—United Light & Ry. Co	Natural Gas	200,000
Des Moines—Des Moines Gas Company	Natural Gas	6,000
Eagle Grove—Iowa Public Service Co	Natural Gas	7,500

(Here follows 1 map, 1 folio 940.)

Plaintiff's Ex. 33



[fol. 941] Plaintiff's Exhibit 34 M. C. D.

77

No. 12

Distribution of Pennsylvania Anthracite in the Coal Year April 1, 1928, to March 31, 1929^a

(Includes both steam and domestic sizes, but not colliery fuel)

Distribution°	Quantity in bnet tons	Percent of total
New England States:		
Maine	479,402	0.7
New Hampshire	662,541	1.0
Vermont.	363 <i>444</i>	0.5
Massachusetts	5,031,715	7.4
Rhode Island	550,169	0.8
Connecticut	1,974,004	2.9
	9,061,275 ======	13.3 ==
Middle Atlantic States:		==
New York	22,536,054	33.1
New Jersey	9,877,510	14.5
Pennsylvania.	14,298,666	21.0
Delaware	293,691	0.4
Maryland	1,020,499	1.5
District of Columbia.	475,148	0.7
District of Columnia.	48,501,568	71.2
	=====	==
North Central States:		
Ohio	294,673	0.4
Michigan	648,408	1.0
Indiana	136,565	0.2
Illinois	1,008,533	1.5
	2,088,179	3.1
	2,000,179 = = = = =	==
Missouri Val. States:		
Missouri	18,494	(c)
Iowa	100,381	0.1
Nebraska	35,386	0.1
Kansas	2,036	(c)
	156,297	$\overline{0.2}$
		===
Lake Dock States:		
Wisconsin	941,422	1.4
Minnesota	465,312	0.6
North Dakota	56,933	0.1
South Dakota	77,449	0.1
	1,541,116	$\overline{2.2}$
	======================================	===
Southeastern States:		
West Virginia	9,738	(c)
Virginia	142,479	Ò.2
North Carolina	8,643	(c)
South Carolina	14,889	(c)
Georgia	6,281	(c)
Florida	6,536	(c)
Kentucky	31	(c)
	188,597	0.3
	100,001	====

Distribution	Quantity in bnet tons	Percent of total
Western States:		
Wyoming Montana Washington	312	(c) (c) (c)
	401	(c)
Total less R. R. fuel	$61,537,433 \ 3,177,885$	$90.3 \\ 4.7$
Total in U. S.	64,715,318	95.0
Exports:		
Canada	$^{\mathrm{d}3}, 396, 253$ $^{\mathrm{d}34}, 135$	5.0 (c)
	3,430,388	5.0
Total Distribution	$\overline{68,145,706}$	100.0

(a) The above figures do not include colliery fuel. The colliery fuel in 1928–1929 amounted to about 5,860,000 net tons, which added to the total sold makes a grand total of 74,005,706. (b) Based on figures collected by the Anthracite Bureau of Information, supplemented by data from the anthracite originating railroads, the lake dock operators, anthracite dredge operators, and manufacturers of fuel briquets. Totals include dredge coal, and culm made into fuel briquets: (c) Less than 0.05 per cent. (d) Customs records as reported by the Bureau of Foreign and Domestic Commerce.

Distribution of Pennsylvania Anthracite Coal from the Upper Lake Docks, Calendar Year, 1929, in Net Tons a (As reported by the dock operators. Note that the dock shipments are also

included in the preceding table.)

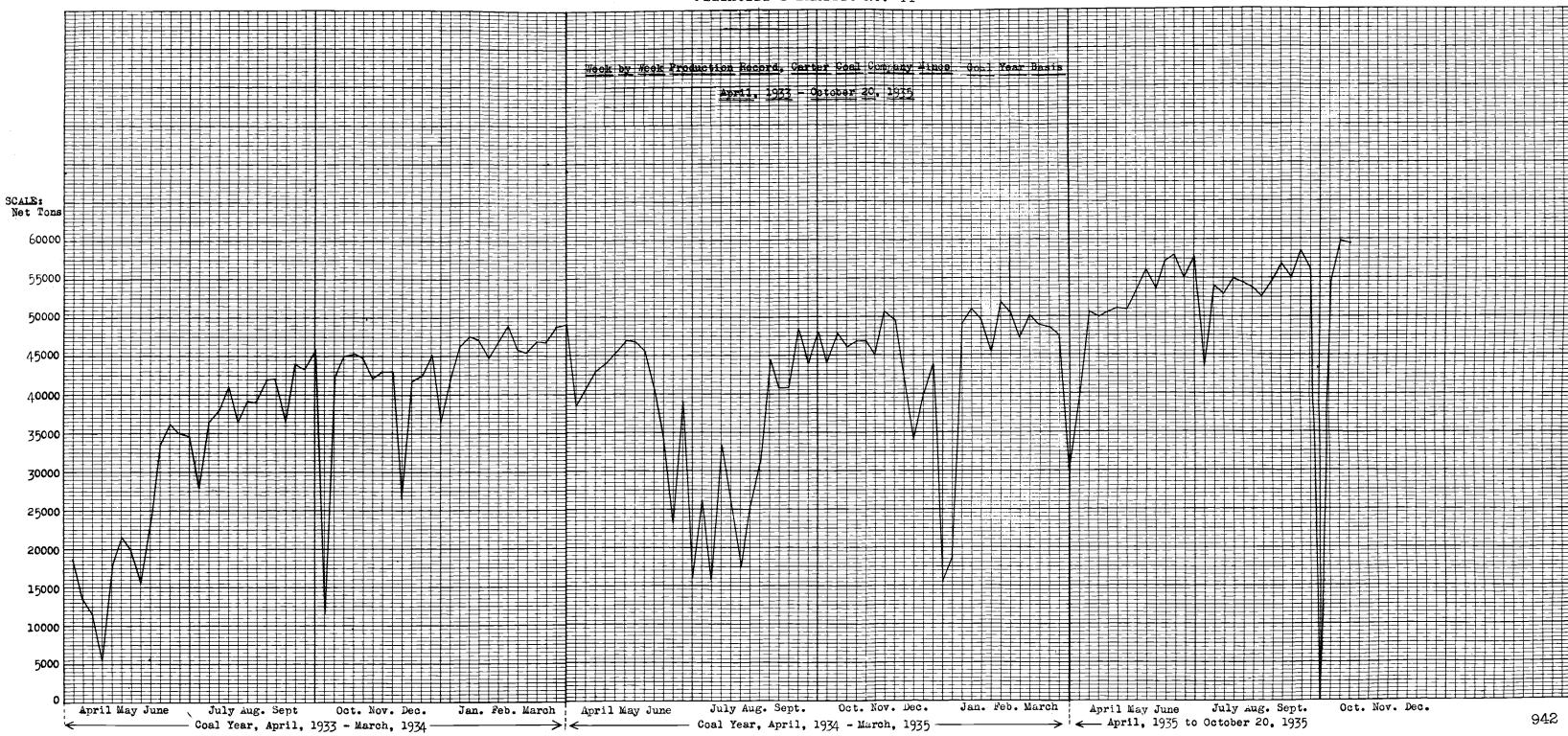
		Lake		
	\mathbf{Lake}	Michigan		
	Superior	(West Bank)	Lake Docks	
	\mathbf{docks}	docks	(All other)	Total
Wisconsin	59,391	629.491		688,882
Minnesota	372,055	87,728		459,783
North Dakota	40,488	11,301		51,789
South Dakota	56, 187	17,054	• • •	73,241
Illinois	651	16,080		16,731
Michigan	32,660	7,019	765	40,444
Iowa	8,424	3,782		12,206
Nebraska	4,865	581		5,446
	574,721	773,036	765	1,348,522
			===	
Railroad fuel	3,432	178		3,610
Exports to Canada b	3,453	• • • • • • • • • •	• • •	3,453
Total	581,606	773,214	765	1,355,585

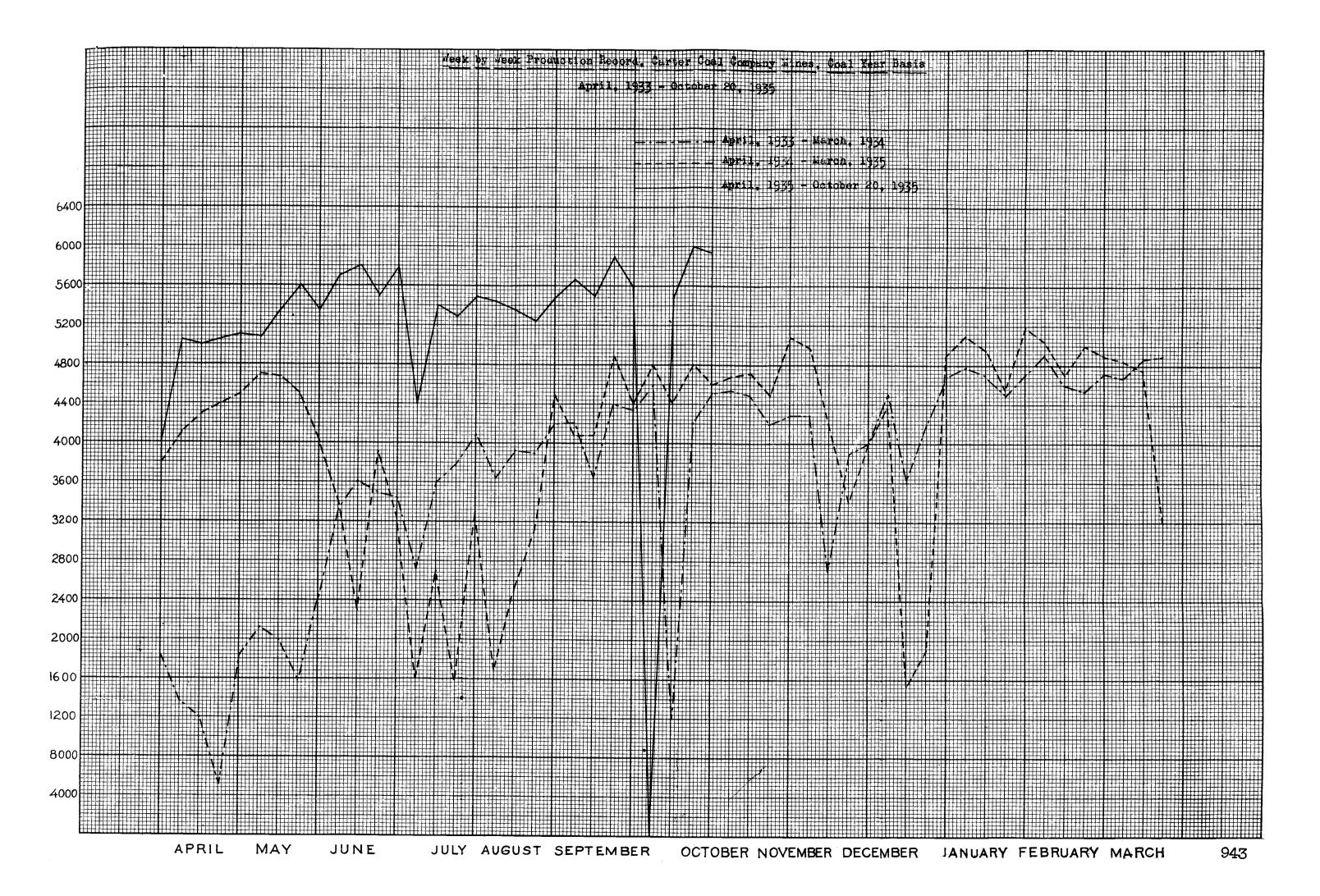
(a) Anthracite loadings at Lake Erie ports, according to Ore and Coal Exchange, amounted to 1,321,328 net tons. The slight discrepancy may be accounted for by changes in stocks. (b) Exports to Canada by rail from Lake Superior

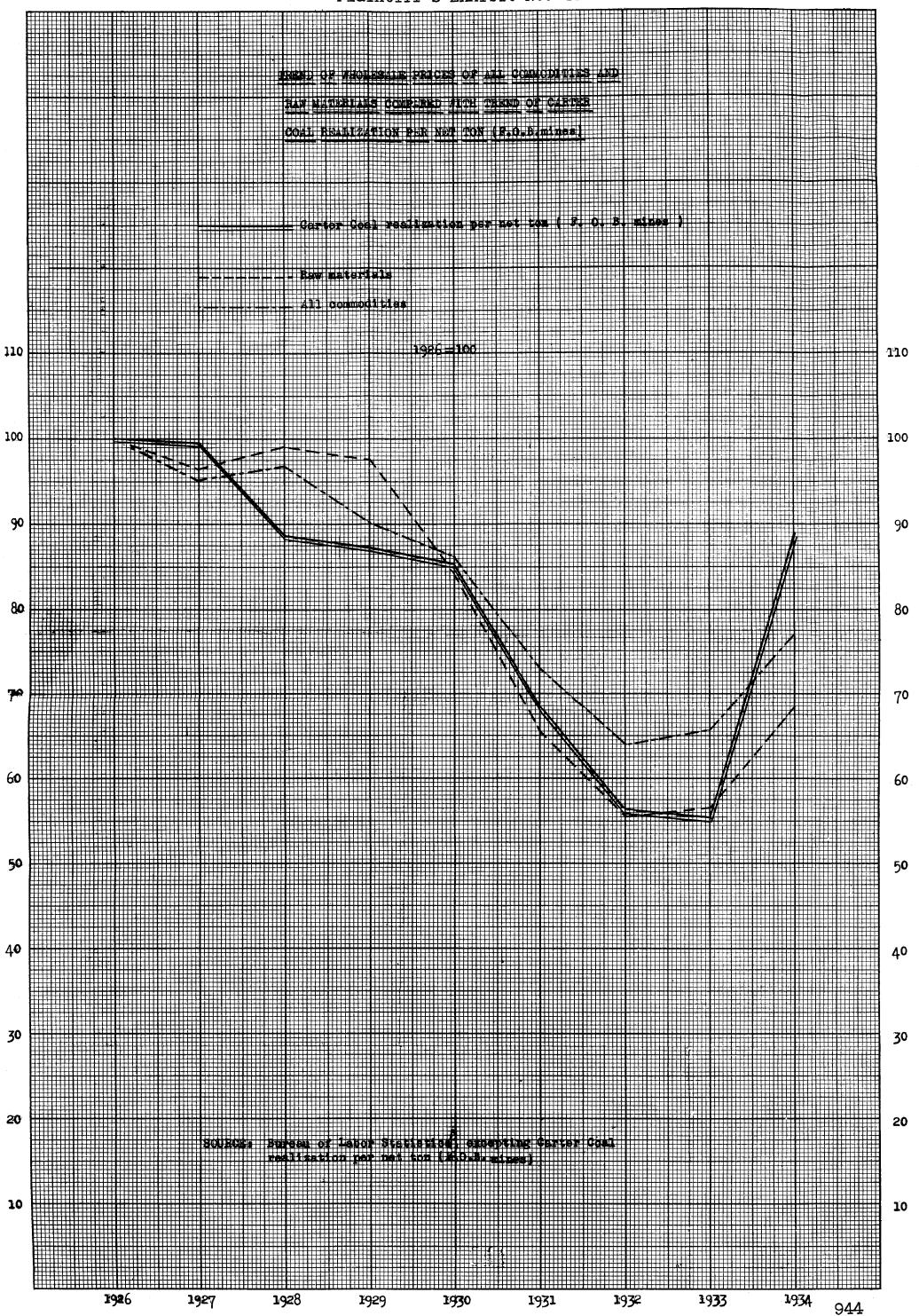
By F. G. Tryon and W. H. Young, Statistics Section, Coal Division. C. P. White, Head, Coal Division.

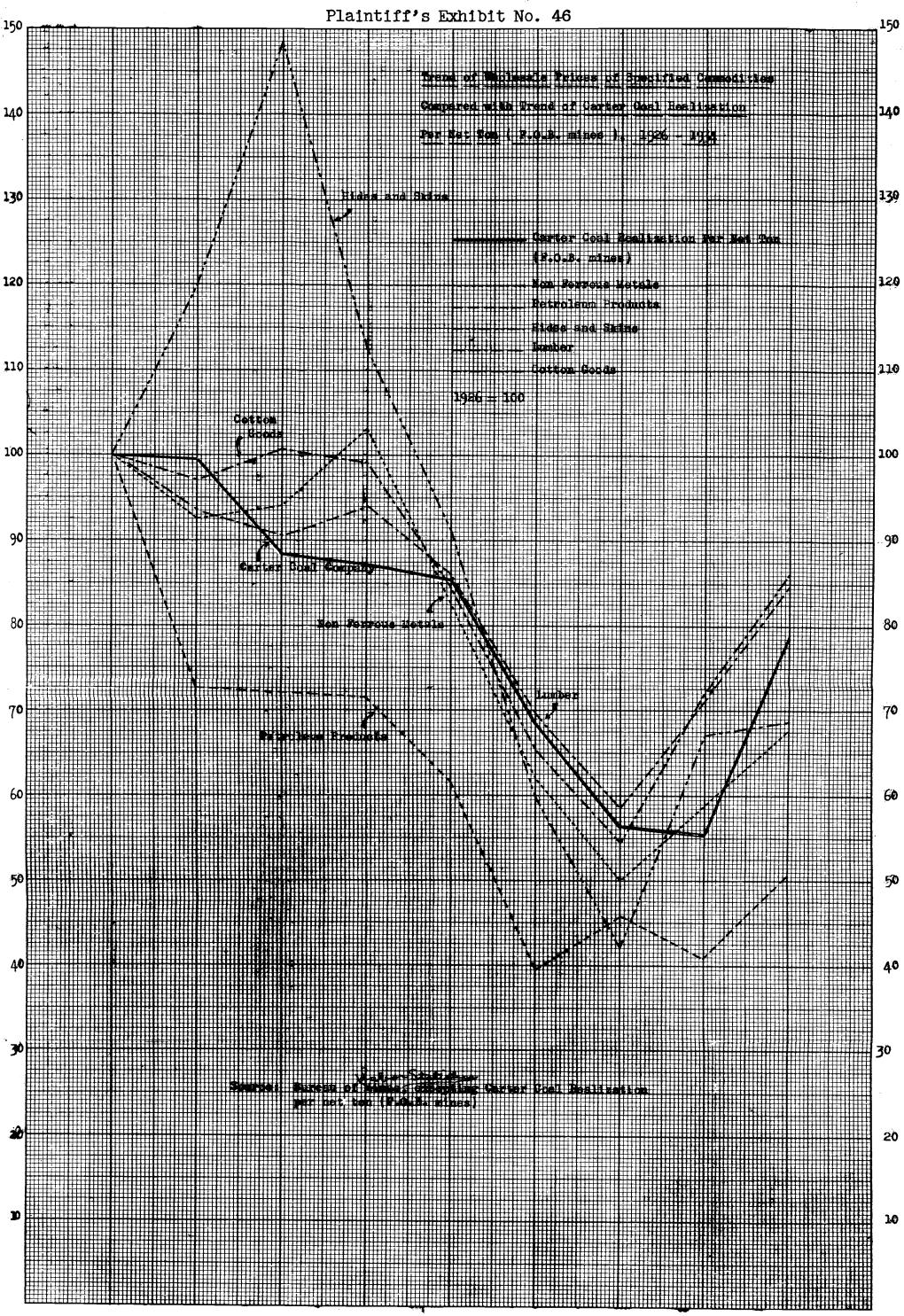
July 20, 1932.

(Here follow 4 maps, folios 942-945.)









[fol. 946] PLAINTIFF'S EXHIBIT 47

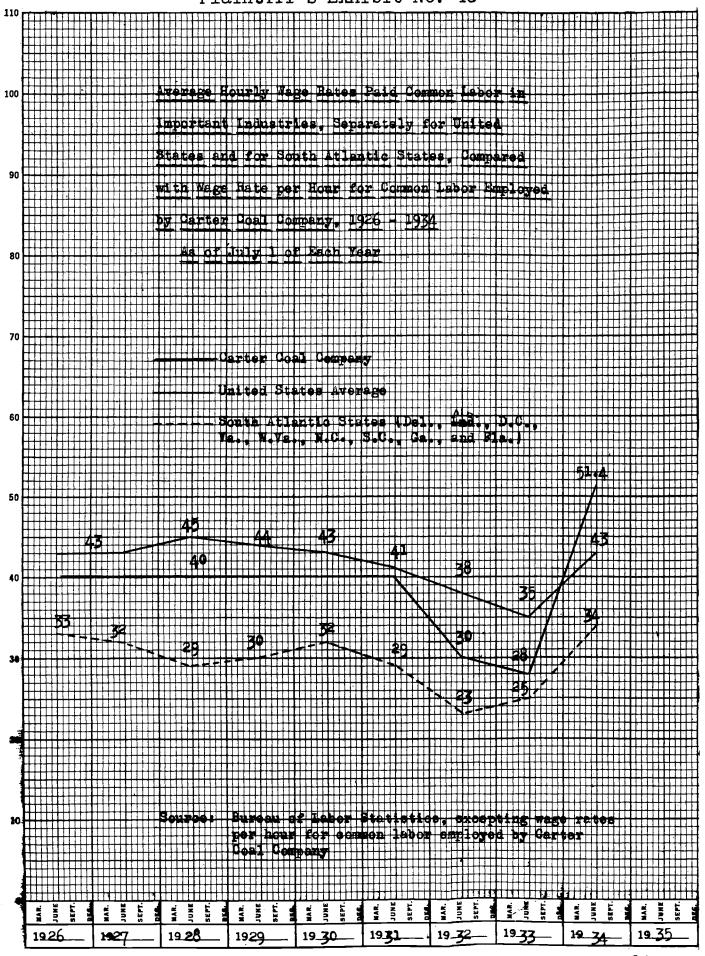
Index Number of Wholesale Prices of Specified Commodities and of Carter Coal Realization Per Net Ton (F. O. B. Mines), 1926-1934 1926 = 100Wholesale Prices

· · · · · · · · · · · · · · · · · · ·								
	Nonferrous Metals	Petroleum Products	Lumber	Cotton Goods	Hides and Skins	Raw Materials	All Commodities	Carter Coal Realization Per Net Ton (F. O. B. Mines)
1926	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1927	92.8	72.7	93.1	97.1	120.3	96.5	95.4	99.5
1928	94.0	72.0	90.5	100.4	148.6	99.1	96.7	88.9
1929	106.1	71.3	93.8	98.8	112.7	97.5	95.3	87 . 4
1930	82.4	61.5	85.8	84 .7	91.0	84.3	86.4	85.5
1931	61.9	39.5	69.5	66.1	60.2	65 .6	73 .0	68.6
1932	49 .8	45 .4	58.5	54.0	42.1	55.1	64.8	56.5
1933	59.6	41.0	7 0.7	71.2	67 . 1	56.5	65 .9	55 .6
1934	67.7	5 0.5	84.5	86.5	68.6	68.6	74.9	88.9

Source: Bureau of Labor Statistics, United States Department of Labor.

(Here follows 1 map, folio 947.)

Plaintiff's Exhibit No. 48



PLAINTIFF'S EXHIBIT 49

Average Hourly Entrance Wage Rates for Adult Male Common Labor

July of Each Year, 1926 to 1934

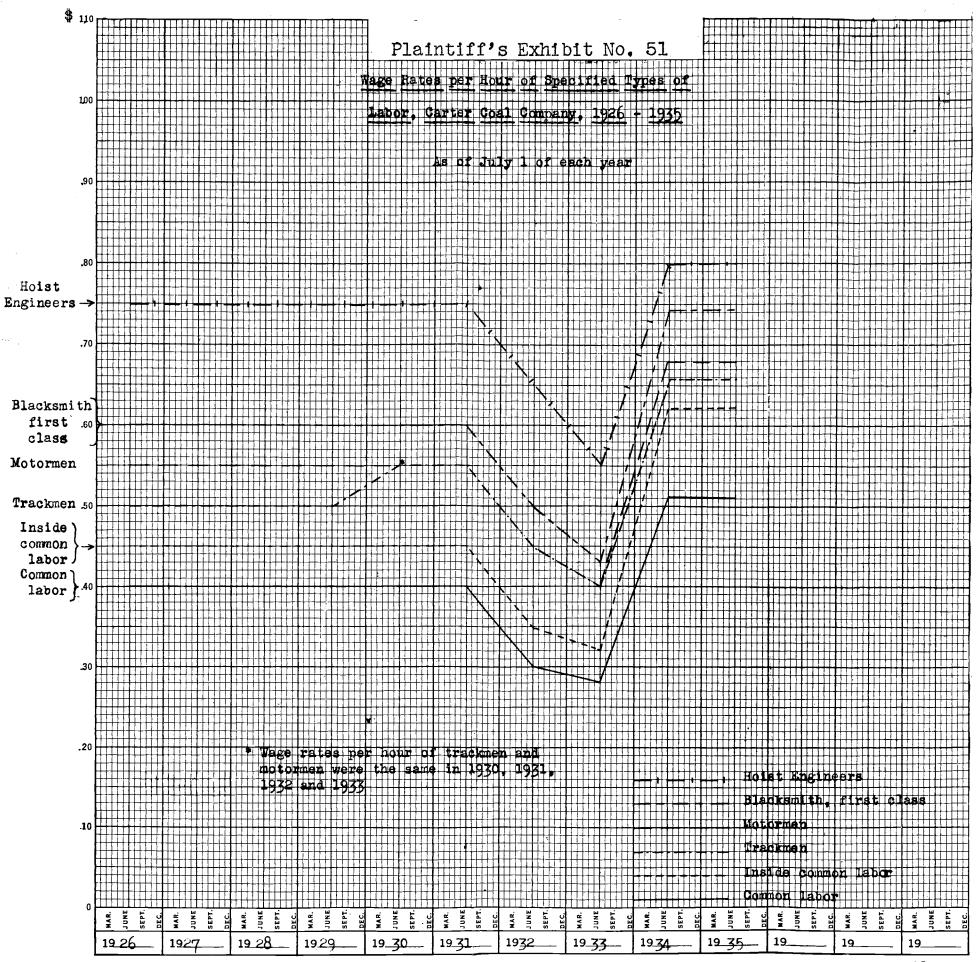
Average hourly entrance rates (in cents) in-Industry 1926 1927 1928 1929 1930 1931 1932 1933 1934 46.1 46.3 48.2 57.7 62.0 46.5 57.2 49.9 54.9 Automobile..... 37.8 33.9 28.9 24.7 Brick, tile, and terra cotta..... 40.7 42.239.4 38.0 36.9 37.2 37.9 30.6 29.5 44.7 Cement..... 40.1 39.2 37.2 37.8 42.9 37.1 43.1 44.2 45.9 44.8 39.6 43.5 Electrical machinery, apparatus, and supplies..... 46.0 Foundry and machine-shop products..... 37.1 37.8 39.8 39.0 38.2 34.8 40.1 38.4 31.8 42.7 42.5 42.1 33.6 43.2 Iron and steel..... 43.2 42.5 41.8 31.8 40.9 41.4 42.3 42.2 41.9 39.1 32.9 31.6 39.3 Leather.... Lumber (sawmills)..... 33.6 32.2 31.7 32.031.6 27.7 21.5 20.8 33.1 43.237.2 35.6 32.6 40.3 Paper and pulp..... 42.8 42.5 44.0 44.3 Petroleum refining..... 47.9 44.0 48.1 47.5 42.1 40.7 **52.6** 45.4 45.7 Slaughtering and meat packing..... 41.7 42.2 42.0 41.8 41.7 34.6 32.3 43.9 41.5 Public utilities..... 42.0 39.8 42.9 42.844.6 44.6 41.5 38.7 41.8 42.638.3 General contracting..... 47.1 48.2 47.4 48.3 47.0 39.9 45.5 All industries..... 42.8 42.6 44.9 43.7 43.1 41.2 38.1 35.0 43.0 40.9 40.4 42.1 41.6 37.6 34.2 42.3 All industries except general contracting..... 44.1 40.747.1 46.7 48.0 49.5 45.4 40.4 37.1 43.3 New England..... Middle Atlantic.... 45.1 47.2 47.8 46.4 46.1 45.1 40.4 36.7 45.2 47.0 38.9 East North Central..... 48.0 46.7 51.6 48.4 45.245.0 47.0 41.8 40.6 42.9 35.8 34.5 West North Central..... 40.1 40.6 41.3 43.2 South Atlantic..... 32.8 31.5 29.4 30.2 32.1 28.9 23.4 25.3 33.6 East South Central..... 27.6 27.0 26.0 26.8 26.7 25.2 21.0 25.7 34.1 35.6 29.9 23.7 23.4 West South Central.... 32.531.8 33.8 33.0 32.7 39.3 42.3 Mountain 44.4 44.4 44.0 44.9 45.2 43.1 46.4 47.6 46.5 43.540.2 38.0 46.9 45.946.9 47.9

Source: Bureau of Labor Statistics.

Table 333, page 303, Statistical Abstract, 1934, Except 1934 Figures Which are from Serial No. R. 196 (Dec. 1934 Issue of Monthly Labor Review).

PLAINTIFF'S EXHIBIT 50 [fol. 949] Wage Rates Per Hour of Specified Types of Labor, Carter Coal Company, 1926-1935 As of July 1 of Each Year 1927 1928 1929 1926 1930 1931 1932 1933 1934 1935 \$.40 \$.40 \$.40 \$.40 \$.28 .32 \$.40 \$.40 \$.30 \$.514 \$.514 .45 .50 .55 .60 . 45 . 50 . 55 . 60 . 45 . 50 . 45 . 55 . 55 .623 .657 .68 .743 .623 .657 . 45 . 45 . 35 .55 .55 .60 .75 . 50 . 45 .40 Motormen.
Blacksmith, first class.
Hoist engineers. .55 .60 .75 .68 .743 . 45 .40 .60 .75 .43 . 50 . 65 . 80

(Here follow 1 drawing, folio 950; 1 table, folio 951; 1 map, folio 952.)



CARTER COAL COMPANY

STATEMENT OF PRODUCTION AND REALIZATION BY STATES IN WHICH MINES ARE LOCATED AND OF OPERATING EXPENSES, INSURANCE, TAXES, ETC., BY YEARS, 1923 TO 1934, INCLUSIVE

						DNSOLIDATION	COAL	COMPANY	MANAGEMENT			UNDER CARTE	-	UNDER CARTER MANAGEMENT
Particulars (a) PRODUCTION IN NET TONS:	1923	1924	<u>1925</u>	1926	1927	1928	1929	1930	1931	1932	2½ months Ended March 15, 1933	92 months Ended December 51, 1933	1933 Combined	1934
West Virginia Virginia Kentuoky	498,714 123,714 63,446	772,449 40,331	1,220,285 35,610	1,575,801 20,513	1,773,223	1,872,492	1,%3,771	1,921,215	1,668,744	807 , 625	174,008	1,3以,917 	1,518,925	2,126,046
Total	685,904	812,780	1,255,899	1,5%,314	1,773,223	1,872,492	1,%3,771	1,921,215	1,668,744	807,625	1714,008	1,34,917	1,518,925	2,126,046
(c) AVERAGE MINE REALIZATION: +														
West Virginia														
Amount Per Ton Produced	\$1,679 ,19 5 (\$3 .3 67)	\$1,549,379 (\$2.006)	\$2,362,778 (\$1,936)	\$3,260,185 (\$2,069)	\$3,646,842 (\$2.057)	\$3,450,901 (\$1.843)	\$3,545,890 (\$1.806)	\$3,393,577 (\$1,766)	\$2,362,534 (\$1.41 6)	\$ 942,629 (\$1.167)	\$ 185,647 (\$1,067)	\$1,564,833 (\$1.164)	#1,750,480 (#1.152)	\$3,918,266 (\$1.843)
Virginia														,
Amount Per Ton Produced	404,008 (\$3.266)	(31,841)	70,173 (\$1,971)	38,950 (\$1,899)	***		•••							
Kentucky														
Amount Per Ton Produced	178,335 (\$2,811)				••									
Total Amount Per Ton .roduced	\$2,261,538 (\$3.297)	\$1,623,624 (\$1.998)	\$2,432,951 (\$1.937)	\$3,299,135 (\$2.067)	\$3,646,842 (\$2.057)	\$3,450,901 (\$1,843)	\$3,545,890 (\$1,906)	\$3,393,577 (\$1,766)	\$2,362,534 (\$1,416)	\$ 942,629 (\$1.167)	\$ 195,647 (\$1.067)	\$1,564,833 (\$1.16 4)	\$1,750,480 (\$1.152)	\$3,919,266 (\$1.843)
Per Ton Preduced	(\$2.528)	(\$2.061)	(31.740)	(31.789)	(\$1.686)	\$2,912,637 (\$1.555) From the foll	(\$1.653)	(\$1.610)	\$2,600,059 (\$1,558)	\$1,359, 1 49 (\$1.683)	\$ 228,185 (\$1.311)	\$1,736,364 (\$1,291)	\$1,%4,549 (\$1.293;	3،334،446 (1،568)

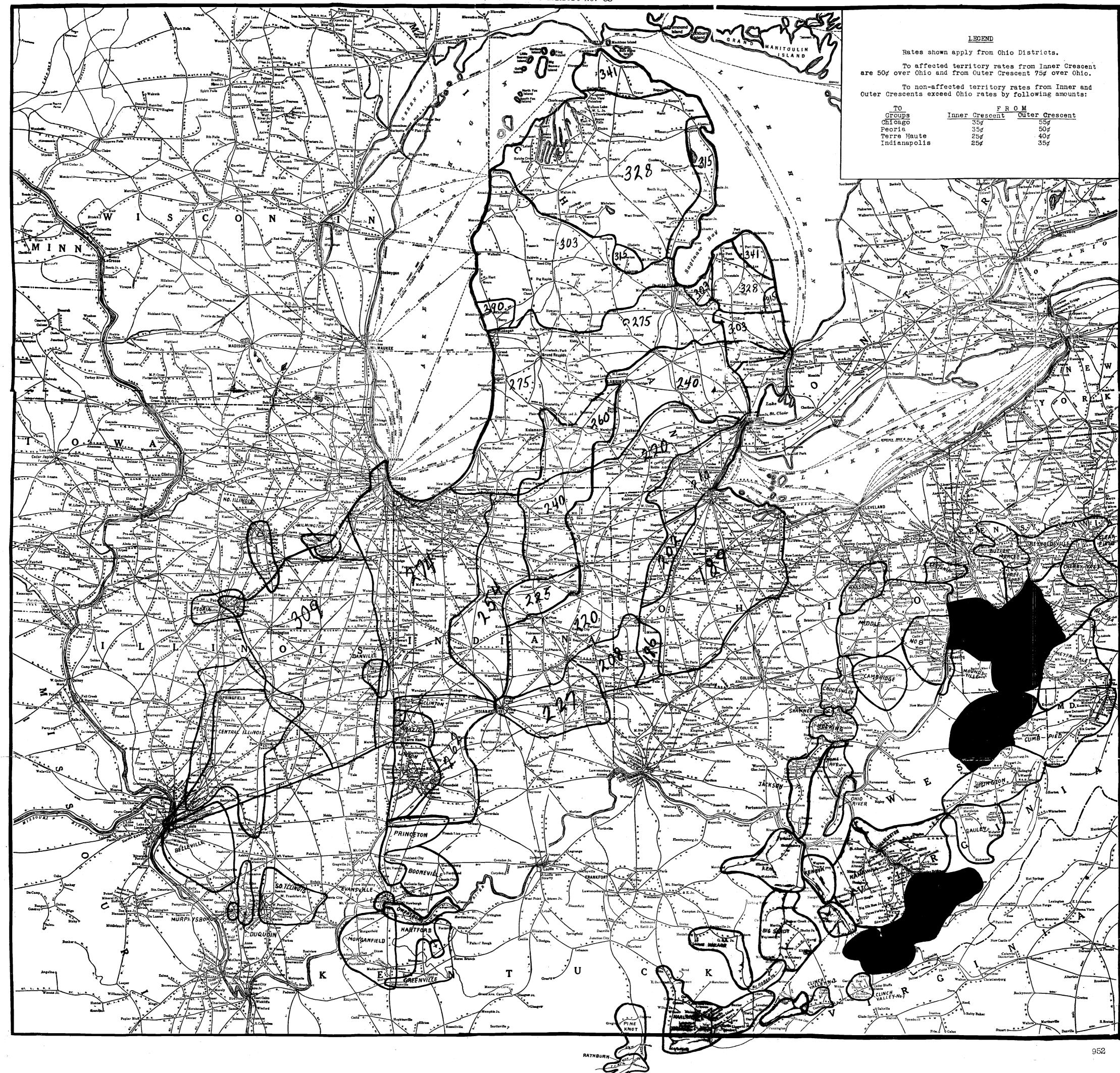
For the years 1923 to 1931 inclusive (except the split of production and average realization between states) the figures were taken from statements prepared by The Consoliation Coal Company and delivered from time to time to Mr. James Walter Carter. The split of production and realization as between states was made from analysis of billings for the respective years, and the amounts are approximate.

For the year 1932 and for the two and one-half months ended March 15, 1933, the figures were taken by the present (Carter) management from the records of Carter Coal Company as maintained by The Consolidation Coal Company management, and are comparable with the figures for prior years insofar as it was possible to determine.

For the nine and one-half months ended December 31, 1933 and the year 1934, the figures were taken from the records of Carter Coal Company as maintained by the present (Carter) management, arranged so as to be comparable with the figures for the other years, insofar as it was possible to determine.

^{*} Includes variation in inventories.

Plaintiff's Exhibit No. 53



[fol. 953] Plaintiff's Exhibit 54

Freight Rates from Various Coal Producing Fields to Illinois—Indiana—Michigan Points

		Pittsburgh-Connellsville Fairmont		Kanawha-Kentucky
From:— (Districts)	Pocahontas-Tug River (Norfolk & Western)	(Baltimore & Ohio RR) (Pennsylvania RR)	Kenova-Thacker (Norfolk & Westn)	Big Sandy (Chesapeake & Ohio)
To:				
Illinois-Indiana				
Chicago Group	3.29(1)	3.09(2)	3.09(1)	3.09(3)
Indianapolis, Ind	2.62(1)	2.52(2)	2.52(1)	2.52(3)
Kokomo Group Anderson, Ind. Kokomo, Ind. Muncie, Ind. Ft. Wayne, Ind.	2.95(1)	2.70(2)	2.70(1)	2.70(1)
South Bend, Ind	3.29(1)	3.04(2)	3.04(1)	3.04(3)
Michigan:				
Detroit Group Detroit Highland Park Wyandotte	2.85(1)	2.60(2)	2.60(1)	2.60(3)
Ann Arbor Group Ann Arbor Dearborn Jackson	2.95(1)	2.70(2)	2.70(1)	2.70(3)

PLAINTIFF'S EXHIBIT 54—Continued

From:— (Districts)	Pocahontas-Tug River (Norfolk & Western)	Pittsburgh-Connellsville Fairmont (Baltimore & Ohio RR) (Pennsylvania RR)	Kenova-Thacker (Norfolk & Westn)	Kanawha-Kentucky Big Sandy (Chesapeake & Ohio)
To:				
Lansing Group Flint Lansing Pontiac Port Huron	3.15(1)	2.90(2)	2.90(1)	2.90(3)
[fol. 954]				
Kalamazoo Group Battle Creek Kalamazoo	3.35(1)	3.10(2)	3.10(2)	3.10(3)
Grand Rapids Group Bay City Grand Rapids Muskegon Sazinaw	3.50(1)	3.25(2)	3.25(1)	3.25(3)

Tariff Authority:—

⁽¹⁾ N & W 3140-B, 3/5/32 (2) (B & O C & C ICC-2763, 3/15/33 (PRR AA-ICC-2035, 2/18/24 (3) C & O 100-F, ICC-11138, 3/26/31.

[fol. 955] PLAINTIFF'S EXHIBIT 55

Freight Rates from Various Coal Producing Fields to Ohio Points

	Pocahontas-Tug River (Norfolk & Western)			Fairmont (Baltimore & Ohio) (Pennsylvania RR)		Kanawha-Kentucky Big Sandy (Ches. & Ohio)
To:						
Canton	2.64(1)	1.59(2)	1.65(2)	1.84*(2)	2.39(1)	2.39(3)
Cleveland		1.84(2)	1.90(2)	1.99(2)	2.39(1)	2.39(3)
Massillon		1.59(2)	1.65(2)	1.87#(2)	2.39(1)	2.39(3)
Youngstown	. 2.64(1)	1.34(2)	1.42(2)	1.58(2)	2.39(1)	2.39(3)

References:-

Tariff Authority:-

- (1) N & W 3140-B, 3/5/32. (2) (B & O, C & C, ICC-2763, 3/15/33. (PRR, AA ICC-2035, 2/18/24. (3) C & O, 100-F, ICC-11138, 3/26/31.

^{*\$1.82} from Fairmont No. 1 on the Baltimore & Ohio RR—\$1.87 via P. R. R. # \$1.65 from Fairmont No. 1 on the Baltimore & Ohio RR.

(Here follows Plaintiff's Exhibit 56, folio 956.)

874-A

[fol. 956]

PLAINTIFF'S EXHIBIT 56

Freight Rates from Various Coal Producing Fields to Lake Cargo Points

From— (Districts)	Pocahontas-Tug River (Norfolk & Western)	Thacker-Kenova (Nor. & Western)	Kanawha- Kentucky- Big Sandy (Ches. & Ohio)	Pittsburgh (Balt. & Ohio RR) (Penn. R. R.)	Connellsville (Balt. & Ohio RR) (Penn. R. R.)	Fairmont (Balt. & Ohio RR) (Penn. R. R.)	Jellico-Hazard (L & N RR)
To—							
Sandusky, Ohio	1.96(1)	1.81(1)	1.81 (2)	1.46 (3)	1.54(3)	1.66 (3)	1.81(4)
Toledo, Ohio	1.96 (1)	1.81 (1)	1.81(2)				1.81 (4)
Cleveland, Ohio				1.46 (5)	1.54 (5)	1.66 (5)	• • • •
Ashtabula, Ohio				1.46 (5)	1.54(5)	1.66 (5)	• • • •
Erie, Pa				1.46 (5)	1.54(5)	1.66 (5)	

Tariff Authority—

(1) N & W 3141-B, 4/1/32
(2) C & O 17-T, ICC 10436, 12/28/27
(3) B & O C & C, ICC 2800, 7/15/35
(4) L & N 234-C, ICC A-16223, 2/15/35
(5) P RR AA ICC 1334, 8/15/19

[fol. 957]

PLAINTIFF'S EXHIBIT 57

Comparison Between Coal Fields and Districts Under Code

Coal Producing Fields	Districts Under the Bituminous Coal Code (Pursuant to the Con- servation Act of 1935)
Big Sandy	Southern No. 2—District No. 8
Connellsville	Western Penna.—District No. 2
Fairmont	. Northern W. Va.—District No. 3
Hazard	. Southern No. 2—District No. 8
Jellico	Southern No. 2—District No. 8
Kanawha	Southern No. 2—District No. 8
Kenova	. Southern No. 2—District No. 8
Kentucky	Southern No. 2—District No. 8
New River	. Southern No. 1—District No. 7
Pittsburgh	. Western Penna.—District No. 2
Pocahontas	Southern No. 1—District No. 7
Stonega	Southern No. 2—District No. 8
Thacker	Southern No. 2—District No. 8
Tug River	. Southern No. 1—District No. 7
•	

[fol. 958]

PLAINTIFF'S EXHIBIT 58

Total Delivered Cost of Bituminous Coal Purchased by Class I Railroads in the United States and Average Cost Per Net Ton

(Source: Interstate Commerce Commission)

	Net tons	Total cost	Average delivered
Year	purchased	delivered(1)	cost per net ton
1919(2)	123,907,508	\$390,036,556	\$ 3.148
1920(2)	155,343,635	641,224,469	4.128
1921	(3)	(3)	(3)
$1922(4)\ldots$	120,653,624	473,609,014	3.925
$1923(4)\ldots\ldots$	157,899,918	534,028,691	3.382
1924(4)	126,340,181	372,030,966	2.945
$1925(4)\ldots$	131,451,834	348,891,293	2.654
$1926(4)\ldots$	139,602,076	366,234,326	2.623
1927(4)	130,606,152	341,600,900	2.616
$1928(4)\dots$	119,820,194	298,013,894	2.487
$1929(4)\dots$	124, 151, 763	292,131,298	2.353
1930(4)	108,651,420	247,696,815	2.280
1931(4)	91,135,583	197,382,901	2.166
1932(4)	74,670,282	149,327,909	2.000
1933(4)	75,486,947	146,833,684	1.95
1934(4)	79,493,809	175, 179, 542	2.20

(1) Including transportation charges paid foreign lines. (2) From a special investigation in Docket 12086, Increased Cost of Railroad Fuel, 1920, Report of the Commission of the Senate to the United States in Response to Senate Resolution No. 412, published in Interstate Commerce Commission Reports, Volume 61, p. 761-763. Details are given in an accompanying exhibit. (3) Separate data on bituminous and anthracite purchases were not available for 1921. (4) Data for 1922 to 1934 from Interstate Commerce Commission Statistics of Railways in the United States, Statement Number 49-A. Represents Class I Steam Railways excluding switching and terminal companies.

Compiled by F. G. Tryon, Coal Economics Division, U. S. Bureau of Mines.

NATIONAL RECOVERY ADMINISTRATION

CODE OF FAIR COMPETITION

FOR THE

BITUMINOUS COAL INDUSTRY

AS APPROVED ON SEPTEMBER 18, 1933 PRESIDENT ROOSEVELT



INCLUDES AMENDMENTS 1-3, INCL.

UNITED STATES GOVERNMENT PRINTING OFFICE WASHINGTON: 1934

This publication is for sale by the Superintendent of Documents, Government Printing Office, Washington, D.C., and by district offices of the Bureau of Foreign and Domestic Commerce.

DISTRICT OFFICES OF THE DEPARTMENT OF COMMERCE

Atlanta, Ga: 504 Post Office Building.

Birmingham, Ala.: 257 Federal Building. Boston, Mass.: 1801 Customhouse. Buffalo, N.Y.: Chamber of Commerce Building. Charleston, S.C.: Chamber of Commerce Building. Chicago, Ill.: Suite 1706, 201 North Wells Street. Cleveland, Ohio: Chamber of Commerce.

Dallas, Tex.: Chamber of Commerce Building. Detroit, Mich.: 2213 First National Bank Building. Houston, Tex.: Chamber of Commerce Building.

Houston, Tex.: Chamber of Commerce Building.
Indianapolis, Ind.: Chamber of Commerce Building.
Jacksonville, Fla.: Chamber of Commerce Building.
Kansas City, Mo.: 1028 Baltimore Avenue.
Los Angeles, Calif.: 1163 South Broadway.
Louisville, Ky.: 408 Federal Building.
Memphis, Tenn.: 229 Federal Building.
Minneapolis, Minn.: 213 Federal Building.
New Orleans La: Room 225.A. Custombouse.

Minneapolis, Minn.: 213 Federal Building.
New Orleans, La.: Room 225-A, Customhouse.
New York, N.Y.: 734 Customhouse.
Norfolk, Va.: 406 East Plume Street.
Philadelphia, Pa.: 933 Commercial Trust Building.
Pittsburgh, Pa.: Chamber of Commerce Building.
Portland, Oreg.: 215 New Post Office Building.
St. Louis, Mo.: 506 Olive Street.
San Francisco. Calif.: 310 Customhouse.

San Francisco, Calif.: 310 Customhouse. Seattle, Wash.: 809 Federal Building.

Approved Code No. 24

CODE OF FAIR COMPETITION

FOR THE

BITUMINOUS COAL INDUSTRY

As Approved on September 18, 1933

RY

PRESIDENT ROOSEVELT

Executive Order

An application having been duly made, pursuant to and in full compliance with the provisions of Title I of the National Industrial Recovery Act, approved June 16, 1933, for my approval of a Code of Fair Competition for the Bituminous Coal Industry, and hearings having been held thereon and the Administrator having rendered his report containing an analysis of the said Code of Fair Competition together with his recommendations and findings with respect thereto, and the Administrator having found that the said Code of Fair Competition complies in all respects with the pertinent provisions of Title I of said Act and that the requirements of clauses (1) and (2) of subsection (a) of Section 3 of the said Act have been met:

NOW, THEREFORE, I, Franklin D. Roosevelt, President of the United States, pursuant to the authority vested in me by Title I of the National Industrial Recovery Act, approved June 16, 1933, and otherwise, do adopt and approve the report, recommendations, and findings of the Administrator and do order that the said Code of Fair Competition be and is hereby approved, subject to the following conditions:

(1) There shall be added to the first paragraph of Section 3 of Article VII of the Code the following sentence:

All coal producers subject to the Code shall furnish to any government agency or agencies designated by the Administrator such statistical information as the Administrator may, from time to time, deem necessary for the purposes recited in Section 3 (a) of the National Industrial Recovery Act and any reports and other information collected and compiled by a Code Authority, as heretofore provided, shall be transmitted to such government agencies, as the Administrator may direct.

79597°—1044–55——34

(2) There shall be added after the first sentence of Section 4 of Article VII the following sentence:

The President may appoint not more than three members of the Industrial Board in addition to, or in substitution for one or more of, the aforesaid six members of the Divisional Code Authorities.

(3) Schedule A as attached to the Code recommended by the Administrator is approved with the understanding that any basic minimum rates not fixed therein may be approved or prescribed by the President at any time prior to the effective date of this Code by a

supplementary Executive Order.

(4) Because it is evident that attempts by those submitting Codes to interpret Section 7 (a) of the National Industrial Recovery Act have led to confusion and misunderstanding, such interpretations should not be incorporated in Codes of Fair Competition. Therefore, paragraph (b) of Article V must be eliminated without, by this exclusion, indicating disapproval in any way of the joint statement of the Administrator and General Counsel of the National Recovery Administration, which has been attached to the Code as Schedule B and was incorporated by reference in said paragraph (b) of Article V.

(5) The exception to the definition of "employee" in Article II belongs in Article III. Accordingly, the words "except members of the executive, supervisory, technical and confidential personnel" are stricken from the third paragraph of Article II. These same words are inserted in the first paragraph of Article III after the words "no

employee."

FRANKLIN D. ROOSEVELT.

Approval recommended:
Hugh S. Johnson,
Administrator.

THE WHITE HOUSE, September 18, 1933.

SEPTEMBER 17, 1933.

General Hugh S. Johnson, Administrator, National Recovery Administration, Washington, D.C.

DEAR SIR: I present herewith for your consideration and recommendation to the President the Code of Fair Competition for the Bituminous Coal Industry.

Efforts were under way to secure the cooperation of the Bituminous Coal operators prior to and in anticipation of the passage of the

National Industrial Recovery Act.

The state of utter disorganization in the industry involving the prevalence of unfair competitive practices, particularly in the payment of low wages in order to permit of unreasonably low coal prices, furnished a good example of the effects of unrestrained competition in an industry capable of great overproduction in relation to existing consumer demands. In numerous ways the Bituminous Coal Industry has furnished more convincing evidence of the need for the integrating force of the National Industrial Recovery Act than any

other industry in the nation.

The initial and immediate activity of the Administrator and the present writer after your appointment was an effort to bring about a greater coordination and cooperation between the operators in the different sections of the country in this industry and largely in response to this effort there came into being the Northern Coal Control Association and the Smokeless Appalachian Coal Association, representing almost all producers in the Appalachian coal area which produces approximately 70% of the national Bituminous coal tonnage. These associations join in presenting a Code of Fair Competition, this being a remarkable exhibition of cooperation among coal producers who have been engaged for a generation in bitter competitive operations. Other associations in various regions presented separate Codes as did certain groups of individual producers thus offered to the Administration the problem of harmonizing in some manner the divergent views represented in some twenty-eight different Codes.

This industry also presented the unique problem of one in which there was far-reaching organization of labor on an industrial basis, The United Mine Workers of America having contracts with many operators in many fields and claiming organization of workers in

many other fields where no contractual relations existed.

The difficulty of reconciling all the conflicting elements in this situation can hardly be overemphasized. During the progress of discussion following the public hearings representatives of the Appalachian Associations requested the aid of the Administration in facilitating the negotiation of a contract between these associations and the United Mine Workers of America, and it was evident to the Administration that this step having been taken a successful conclusion to these negotiations was of the utmost importance in bringing about the submission of a code for the industry as a whole.

In the detailed report which will be prepared for your consideration all the steps taken and the problems involved will be given more

adequate consideration. At the present time in view of the urgent need for the recommendation and approval of the code which was finally adopted and submitted for approval on September 16 by representatives of approximately 95 percent of the national tonnage, it is desirable to make recommendations only as to the following minor details:

1. There is a provision in Article VII, section 3, requiring each code authority to collect and combine any report and other information required under the National Industrial Recovery Act. This should be supplemented by a definite obligation imposed upon the industry to furnish to government agencies such statistical information as the administrator may deem necessary for the purposes recited in Section 3-A of the National Industrial Recovery Act in the form of an Executive Order to be recommended to the President. An appropriate provision will be drafted to cover these requirements.

2. In Article VII, Section 4, provision is made for establishing an Industrial board to consist of nine members designated by the several divisional code authorities and the six members of the divisional authorities who have been appointed by the President. It appears that the provision as written may unduly restrict the President in placing on the Industrial Board only his appointees to the divisional

code authorities.

Accordingly, it is recommended that as a condition of approval the President reserve the right to name not more than three members either in substitution for, or in addition to the six presidential appointees made members of the Industrial Board by the present provision of Section 4, of Article VII.

3. Schedule A fixes basic minimum rates for various districts and parts thereof leaving the rates for certain producing areas to be either approved or prescribed by the President prior to the effective date of the code. In view of progress made since the submission of the code in determining those rates not fixed in schedule A as submitted, I am able to recommend the revised Schedule A attached to this report, and desire to make it plain that no rates as fixed in Schedule A as submitted have been changed.

The code as recommended complies in all respects with the pertinent provisions of Title I of the Act. The groups submitting the code impose no inequitable restrictions on admission to membership therein and were truly representative of the Bituminous Industry.

The code as recommended is not designed to promote monopolies or to eliminate or oppress small enterprises and will not operate to discriminate against them, and will tend to effectuate the policy of Title I of the National Industrial Recovery Act.

From evidence adduced during the hearing and all available information, it is believed that this code as now proposed and revised represents an effective, practical, equitable solution for this industry,

and its approval as herewith submitted is recommended.

Respectfully submitted.

K. M. SIMPSON, Deputy Administrator.

Approved:
Hugh S. Johnson,
Administrator.

CODE OF FAIR COMPETITION

FOR THE

BITUMINOUS COAL INDUSTRY

ARTICLE I-PURPOSES

To effectuate the policies of Title I of the National Industrial Recovery Act, the following provisions are submitted as a Code of Fair Competition for the bituminous-coal industry and upon approval by the President shall be the standards of fair competition for this Industry.

ARTICLE II—DEFINITIONS

As used in this Code the term "Industry" as applied to the Bituminous Coal Industry means the production and original sale of all kinds of coal (except anthracite), lignite, and the production and original sale of coke other than byproduct coke.

The term "employer" includes any person employing labor in

any phase of the industry.

The term "employee" includes all persons employed in the

industry.

The term "Administrator" means the official designated by the President to administer the National Industrial Recovery Act.

ARTICLE III-MAXIMUM HOURS OF LABOR

No employee, except members of the executive, supervisory, clerical, technical and confidential personnel, shall be employed in excess of seven hours per day and five day's per week, subject to the exceptions hereinafter stated.

Seven hours of labor shall constitute a day's work and this means seven hours work at the usual working places for all classes of labor, exclusive of the lunch period, whether they be paid on the day or the tonnage or other piecework basis; except in cases of accident which temporarily necessitate longer hours for those required on account thereof; and also excepting that number of workers in each mine whose daily work includes the handling of man-trips and those required to remain on duty while men are entering and leaving the mine.

The following classes of mine workers are exempted from the provisions

as to the maximum hours of work:

(a) All workers engaged in the transportation of coal shall work the additional time necessary to handle man-trips, and/or haulage animals, and all coal in transit, and shall be paid the regular hourly rates. Mine workers engaged in the dumping, handling and preparation of coal, and in the manufacture of coke, shall work the additional time necessary, not to exceed thirty minutes, to dump and prepare the coal delivered to the tipple each day and to complete the usual duties incidental to the operation of coke ovens, and shall be paid the regular hourly rates. This rule shall not encourage the working of such overtime except where it is

necessary to take care of the conditions named.

(b) Employees engaged at power houses, substations and pumps operating continuously for 24 hours daily are especially exempted from the seven-hour provision. Special exemptions of employees other than those named above may be provided, by joint agreements negotiated in accordance with this code, which shall not provide for work in excess of 8 hours per day and 40 hours per week.\(^1\)

ARTICLE IV-MINIMUM RATES OF PAY

From April 1, 1934 to April 1, 1935 the basic minimum rate for inside skilled labor and the basic minimum rate for outside common labor shall be the rate hereinafter set forth in Schedule "A" for each district therein described for each such classification of labor, with the understanding that other classifications of employment will maintain their customary differentials above or below said basic minimum rates.

To secure the parity between minimum rates for day labor and minimum pay for work performed on a tonnage or other piece work basis, the latter shall be determined by the following increases over existing rates in all of the Districts of Schedule "A" except as hereinafter ex-

pressly provided:

On the basis of the 2,000 pound ton, an increase of 10 cents per ton for pick mining; 8 cents per ton for machine mining; an increase of 1 cent per ton for cutting, and for all yardage and dead-work rates an

increase of 9 percent.

In addition to the increases above provided the minimum rates for tonnage and other piecework in Districts B, G, H, J and J-1, shall be further increased by an amount sufficient to maintain the parity between pay for such tonnage and piece work and the basic minimum rates for day labor as prescribed for such Districts in Schedule "A".

ARTICLE V-CONDITIONS OF EMPLOYMENT

(a) Employees shall have the right to organize and bargain collectively through representatives of their own choosing, and shall be free from the interference, restraint, or coercion of employers of labor, or their agents, in the designation of such representatives or in self-organization or in other concerted activities for the purpose of collective bargaining or other mutual aid or protection; (2) no employee and no one seeking employment shall be required as a condition of employment to join any company union or to refrain from joining, organizing, or assisting a labor organization of his own choosing; and (3) employers shall comply with the maximum hours of labor, minimum rates of pay, and other conditions of employment approved or prescribed by the President.

(b) Except as otherwise hereinafter provided, all coal mined on a tonnage basis shall be weighed and the miner paid on the basis of 2,000 or 2,240 pound ton. The miners shall have the right to a checkweighman, of their own choosing, to inspect the weighing of coal: Provided, that where mines are not now equipped to weigh coal a reasonable time may be allowed to so equip such mines; and pro-

Amendment No. 1.—Approved Mar. 31, 1934.
Amendment No. 1.—Approved Mar. 31, 1934.

vided, that in any case where rates of pay are based on any other method than on actual weights, the miners shall have the right to check the accuracy and fairness of the application of such methods,

by representatives of their own choosing.

(c) The net amount of wages due shall be paid semimonthly in lawful money or par check at the option of operators. Any deductions from employees' pay, if not a matter of agreement, shall be in conformity with such general rules and regulations as the Administrator may prescribe for the purpose of preventing unfair deductions, or those which may in effect lower the rates of pay herein provided.

(d) Employees other than maintenance or supervisory men or those necessary to protect the property shall not be required as a condition of employment to live in homes rented from the employer.

(e) No employee shall be required as a condition of employment

to trade at the store of the employer.

(f) No person under seventeen (17) years of age shall be employed inside any mine or in hazardous occupations outside any mine, provided, however, that where a state law provides a higher minimum age, the state law shall govern; no person under the age of sixteen (16)

shall be employed in or about a mine.

(g) As soon as possible after the adoption of this Code, the National Recovery Administration shall undertake, through a designated committee or agency, an investigation for the purpose of reporting on or before December 31, 1933; upon (a) the practicability and cost (assuming the maintenance of existing rates of pay) of applying to bituminous coal mining a shorter work day and work week; (b) the effect of an advisability of revising wage differentials in the various divisions and districts of the industry and in the event of recommended change specification of the amount thereof; (c) the sales obtained for coal, or reasonably to be anticipated, up to the time of the report, for the purpose of determining whether wages and employment can be further increased or maintained without imposing undue burdens upon the industry.

On January 5, 1934, there shall be held a conference between representatives of employers and employees operating under this Code, together with representatives of the National Recovery Administration, for the purpose of determining what, if any, revisions may be desirable at that time of the wages, hours, and differentials, or any other requirements of this Code, on the basis of conditions then existing and the report of representatives of the National Recovery

Administration made as hereinbefore provided.

Unless revised by mutual agreement, as the result of said conference beginning January 5, 1934, the hours of work, minimum rates of pay, and wage differentials as set forth in this Code shall continue in effect until April 1, 1934.

ARTICLE VI-UNFAIR PRACTICES

Section 1. The selling of coal under a fair market price (necessary to carry out the purposes of the National Industrial Recovery Act, to pay the minimum rates herein established, and to furnish employment for labor) is hereby declared to be an unfair competitive practice and in violation of this Code. In order to determine the fair market price, agencies shall be established, as hereinafter provided,

and sales of coal at any time at a price less than a fair market price determined and published, as hereinafter provided, shall create against any person selling at a lower price a prima facie presumption that such a person is engaged in destructive price cutting and unfair competition. It shall be proper in determining such fair market price to take into consideration, in addition to the matters above set forth, also competition with other coals, fuels, and forms of energy or heat production.

Sec. 2. The fair market prices of coal of any grade and character referred to in the next preceding section, subject to the power of

review hereinafter stated shall be—

(a) The minimum prices for the various grades and sizes in the various consuming markets which may be established for future application by a marketing agency or by marketing agencies, of whatever form or howsoever constituted, now existing or hereafter created or organized, acting for coal producers truly representative of at least two thirds of the commercial tonnage of any coal district or group of districts, such minimum prices to be effective when and as

announced as provided in Section 4 hereof.

(b) The minimum prices for the various grades and sizes in the various consuming markets, where no such marketing agency exists, which may be established for future application by the respective Code Authorities hereinafter set up, for their respective areas, after having given consideration to the various conditions and circumstances entering into the sale of each grade and class of commercial coal produced in the district or group of districts it represents, such minimum prices to be effective when announced as provided in Section 4 hereof.

(c) As a basis for determining the fair market price to be announced and published, as provided in the two preceding clauses, the Code Authorities shall utilize the Classifications of coals made by such agencies as are referred to in clause (a) of this section, and shall classify the coals in said districts not sold by such agencies and also the coals in the districts referred to in clause (b) of this section, to which the various prices apply. Said Code Authorities shall, at all times, provide and keep open an office during business hours to which any coal producer in said districts and any representative of the Administrator may apply for information with respect to said classifications and prices.

(d) The term "marketing agency" or "agency" as used in this Article shall include any trade association of coal producers complying with the requirements of a marketing agency and exercising

the functions thereof.

Sec. 3. The fair market prices established for future application under the provisions of Section 2 (a) shall be reported to said Code Authorities by any such marketing agencies in such manner as may

be required by such Authorities.

SEC. 4. The fair market price of bituminous coal, established as aforesaid by such agencies and Code Authorities shall be published within fifteen days after the effective date of this Code, after approval by the Presidential Member of the Code Authority (acting under the direction of the Administrator), who in his approval may permit a reduction or increase in said prices by action of said agencies or Authorities within the limits which he may prescribe, and thereafter

shall be published whenever any change is made therein, and not less frequently than one each month, and on the first of the month. Simultaneously with such publication, said fair market prices of bituminous coal shall be transmitted by the Code Authorities to the National Recovery Administrator for his further review and subsequent action.

SEC. 5. Both the records and the data of such marketing agencies and of said Code Authorities shall be open to inspection and investigation by any agent of the Administrator whom he shall appoint for that purpose. Should such an agent of the Administrator disapprove of any changes proposed in any fair market prices from those previously approved by the Administrator as being in excess of any reductions or increases allowed in such approval, such changes shall not be made effective unless and until the Administrator shall approve them.

SEC. 6. The consignment of unordered coal, or the forwarding of coal which has not actually been sold, consigned to the producer or his agent, is a violation of this code; provided, however, that coal which has not actually been sold may be forwarded, consigned to the producer or his agent at rail or truck yards, tidewater ports, river ports, or lake ports, and/or docks beyond such ports, but such consignments shall be limited to cover:

(a) Bunker coal;

(b) Coal applicable against existing contracts;

(c) Coal for storage (other than in railroad cars) by the producer or his agent in rail or truck yards or on docks, wharves, or other yards for resale by the producer or his agent.

SEC. 7. The adjustment of claims with purchasers of coal in such manner as to grant secret allowances, secret rebates, or secret concessions creates price discrimination and is a violation of this Code.

SEC. 8. The prepayment of freight charges with intent or with the effect of granting a discriminatory credit allowance is a violation of this Code.

SEC. 9. The giving in any form of adjustments, allowances, discounts, credits, or refunds to purchasers or sellers of coal, for the purpose or with the effect of altering retroactively a price previously agreed upon in such manner as to create price discrimination is a violation of this Code.

SEC. 10. The predating or the postdating of any invoice or contract for the purchase or sale of coal, except to conform to a bona fide agreement for the purchase or sale entered into on the predate is a violation of this Code.

SEC. 11. Terms of sale shall be strictly adhered to; and the payment or allowance of rebates, refunds, credits, or unearned discounts, whether in the form of money or otherwise, or extending to certain purchasers services or privileges not extended to all purchasers under like terms and conditions, is a violation of this Code.

SEC. 12. An attempt to purchase business, or obtain information concerning a competitor's business by gifts or bribes, is a violation of this Code.

Sec. 13. The intentional misrepresentation of analysis and/or sizes or the intentional making, causing or permitting to be made, or