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THE NEWS LETTER

OF THE

BUREAU OF PUBLIC ROADS

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A. C. ROSE, EDITOR

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1920

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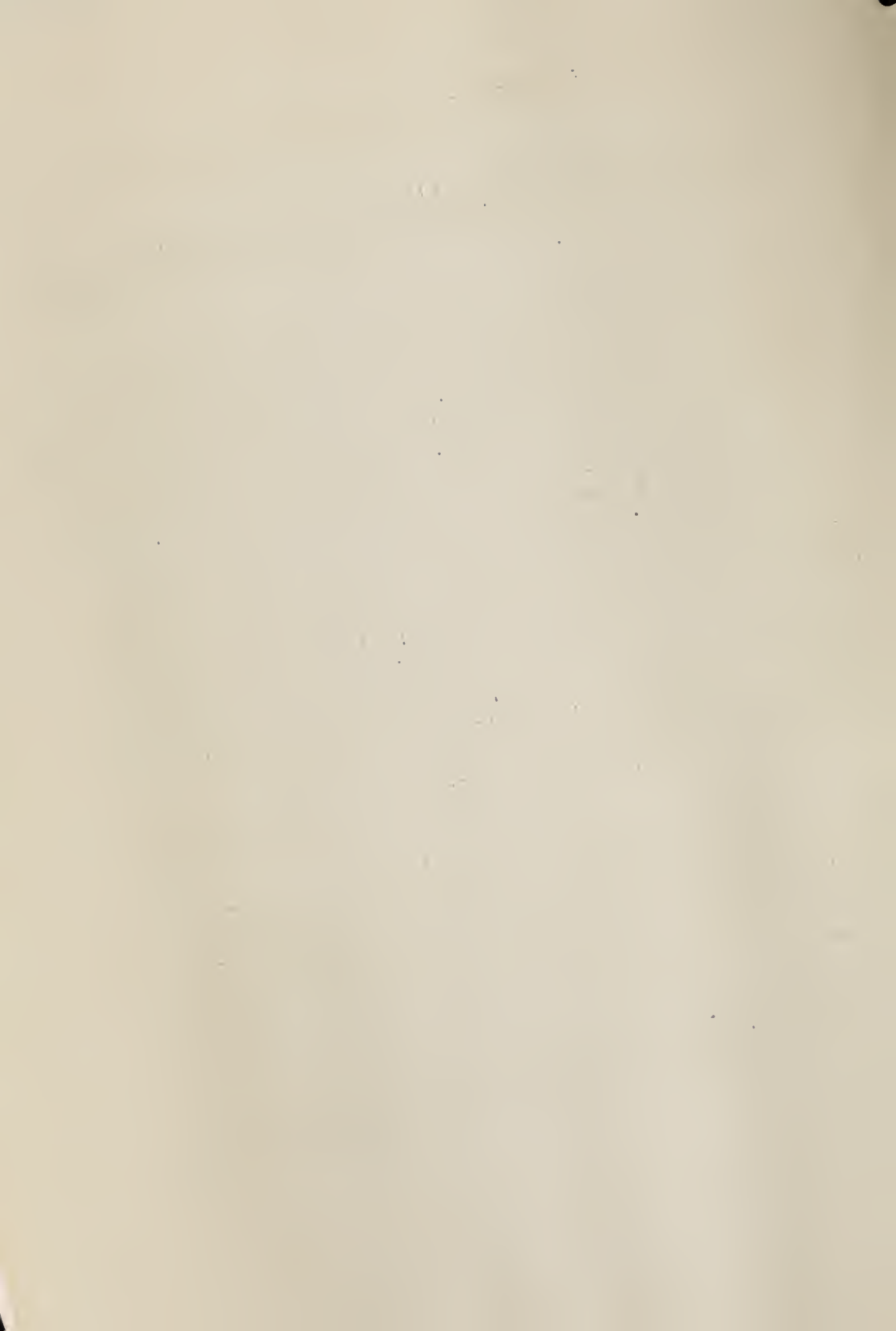
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EXTRACT FROM PRESIDENT COOLIDGE'S ADDRESS AT HAVANA

THIS ADDRESS WAS DELIVERED BEFORE THE CONFERENCE OF THE PAN AMERICAN CONFEDERATION OF AMERICAN STATES, ASSEMBLED AT HAVANA, CUBA, ON JANUARY 16, 1928.

"AN INCREASE OF INFORMATION DEPENDS LARGELY ON AN INCREASE IN THE MEANS OF COMMUNICATION. DURING THE ENTIRE NINETEENTH CENTURY INTERCOURSE BETWEEN THE AMERICAN REPUBLICS WAS EXCEEDINGLY DIFFICULT, AND THIS ISOLATION PROVED A SERIOUS OBSTACLE TO CLOSER UNDERSTANDING. THE TWENTIETH CENTURY, HOWEVER, AND ESPECIALLY THE LAST 10 YEARS HAVE WITNESSED ASTONISHING CHANGES IN THIS RESPECT. TRANSPORTATION BY WATER HAS BECOME RAPID, COMFORTABLE, AND RELATIVELY INEXPENSIVE. SHIPPING FACILITIES FROM THE UNITED STATES HAVE BEEN LARGELY IMPROVED. OUR GOVERNMENT IS GREATLY INTERESTED IN INCREASING THEIR EFFICIENCY. RAILWAY LINES HAVE BEEN EXTENDED SO THAT IT WILL SOON BE POSSIBLE TO TRAVEL WITH PRACTICALLY NO INTERRUPTION FROM THE NORTHERN BORDER OF THE UNITED STATES TO THE SOUTHERN BORDER OF EL SALVADOR, AND IN SOUTH AMERICA FROM PERU TO PATAGONIA. DURING VERY RECENT YEARS EVERY GOVERNMENT OF THIS HEMISPHERE HAS BEEN GIVING SPECIAL ATTENTION TO THE BUILDING OF HIGHWAYS, PARTLY WITH A VIEW TO ESTABLISHING FEEDERS TO THE RAILWAY LINES, BUT ALSO TO PROVIDE GREAT ARTERIES OF INTER-AMERICAN COMMUNICATION FOR MOTOR TRANSPORT. ON THE WALL OF MY OFFICE HANGS A MAP SHOWING PROPOSED HIGHWAYS CONNECTING THE PRINCIPAL POINTS OF OUR TWO CONTINENTS.

"I AM ASKING THE UNITED STATES CONGRESS TO AUTHORIZE SENDING ENGINEERING ADVISERS, THE SAME AS WE SEND MILITARY AND NAVAL ADVISERS, WHEN REQUESTED BY OTHER COUNTRIES, TO ASSIST IN ROAD BUILDING. THESE GRATIFYING CHANGES ARE ABOUT TO BE SUPPLEMENTED BY THE ESTABLISHMENT OF AVIATION ROUTES, PRIMARILY FOR THE TRANSPORTATION OF MAILS, WHICH WILL AFFORD TO OUR REPUBLICS A CHANNEL OF INTERCHANGE WHICH WILL FIND ITS ULTIMATE EXPRESSION IN CLOSER CULTURAL AND COMMERCIAL TIES AND IN BETTER MUTUAL COMPREHENSION. OUR CONGRESS ALSO HAS UNDER CONSIDERATION PROPOSALS FOR SUPPORTING SUCH AIR ROUTES. CITIZENS OF THE UNITED STATES ARE CONSIDERING INSTALLING THEM."



LATIN-AMERICAN DELEGATES AT HAVANA RECEIVE U.S. ROAD INFORMATION

(NOT FOR RELEASE)

SPANISH TRANSLATIONS OF THE MANUAL AND SPECIFICATIONS FOR THE MANUFACTURE AND DISPLAY AND ERECTION OF U. S. STANDARD ROAD MARKERS AND SIGNS, AND HIGHWAY TRANSPORTATION - THE REPORT OF THE HIGHWAY TRANSPORT COMMITTEE OF THE AMERICAN SECTION OF THE INTERNATIONAL CHAMBER OF COMMERCE - WERE PRINTED AND SENT TO THE DELEGATES TO THE SIXTH INTERNATIONAL CONFERENCE OF AMERICAN STATES HELD AT HAVANA, CUBA, DURING THE MIDDLE OF JANUARY. THE BOOKLETS WERE DISTRIBUTED WITH THE COMPLIMENTS OF THE PAN AMERICAN CONFEDERATION FOR HIGHWAY EDUCATION. LATER THE SAME PUBLICATIONS WILL BE USED FOR WIDE DISTRIBUTION THROUGHOUT LATIN AMERICA IN ORDER TO STIMULATE INTEREST IN HIGHWAY DEVELOPMENT.

THE FIRST BOOK IS THE STANDARD SIGN MANUAL PREPARED BY THE BUREAU IN COOPERATION WITH THE AMERICAN ASSOCIATION OF STATE HIGHWAY OFFICIALS. THE OTHER BULLETIN IS A COMPLETE RESUME OF THE PRINCIPLES OF HIGHWAY ECONOMICS, CONSTRUCTION, REGULATION, AND FINANCE AS PRACTICED IN THIS COUNTRY TODAY.

IN ADDITION TO THE DISTRIBUTION OF THESE BOOKLETS, ARRANGEMENTS HAVE BEEN MADE WITH THE ENGINEERING MAGAZINE INGENIERIA INTERNACIONAL TO REPRINT A SERIES OF ARTICLES WRITTEN BY E. W. JAMES - CHIEF OF THE DIVISION OF DESIGN - RELATIVE TO HIGHWAY CONSTRUCTION, MAINTENANCE, OPERATION, FINANCE, AND ACCOUNTING. THE ARTICLES WILL BE BOUND TOGETHER IN A SINGLE VOLUME WITH AN INTRODUCTION BY MR. MACDONALD. AS MANY AS 10,000 COPIES OF THIS BOOK WILL BE DISTRIBUTED AND IT IS EXPECTED TO BECOME A STANDARD DOCUMENT ON HIGHWAY MATTERS THROUGHOUT LATIN AMERICA. ALREADY THERE HAVE BEEN REQUESTS FROM OTHER COUNTRIES THAT THE BOOK BE TRANSLATED INTO FRENCH AND ENGLISH FOR INTERNATIONAL DISTRIBUTION.

The first part of the report
 deals with the general
 conditions of the
 country and the
 progress of the
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 report concludes
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 of the work
 done and a
 list of the
 names of the
 persons who
 have assisted
 in the work.

BUREAU ADOPTS NEW CONTRACT PROCEDURE ON FOREST AND PARK ROAD WORK

DIGESTED FROM AN ADDRESS MADE BY DR. HEWES BEFORE THE ANNUAL MEETING OF THE NORTHERN CALIFORNIA CHAPTER OF THE ASSOCIATED GENERAL CONTRACTORS OF AMERICA, IN SAN FRANCISCO, ON DECEMBER 16, 1927.

(NOT FOR RELEASE)

RECENT REVISIONS IN THE CONTRACT PROCEDURE OF THE BUREAU, AFFECTING FOREST AND NATIONAL PARK ROAD WORK, WERE OUTLINED BY DR. HEWES, IN AN ADDRESS BEFORE THE ANNUAL CONVENTION OF THE NORTHERN CALIFORNIA CHAPTER OF THE ASSOCIATED GENERAL CONTRACTORS OF AMERICA, IN SAN FRANCISCO, ON DECEMBER 16, 1927, AND WERE FORMALLY ENDORSED BY THAT ORGANIZATION. THE REVISIONS, AS DESCRIBED BY DR. HEWES, HAVE TO DO WITH CERTAIN CHANGES IN OUR PROCEDURE, PARTICULARLY WITH REGARD TO THE DETERMINATION OF THE BIDDER'S RESPONSIBILITY.

SINCE THE COMPTROLLER GENERAL HAD RULED, IN A PREVIOUS CASE, THAT ANY CONTRACTOR, WHO HAD RECEIVED PLANS AND COULD FURNISH A SATISFACTORY BOND, MUST BE CONSIDERED A RESPONSIBLE BIDDER; IT BECAME NECESSARY TO ADOPT SOME PROCEDURE WHEREBY THE INEXPERIENCED OR INCOMPETENT CONTRACTORS MIGHT BE ELIMINATED. THE NEW PROCEDURE PURPOSES TO ACCOMPLISH THIS BY THE PREQUALIFICATION OF BIDDERS TO DETERMINE THEIR RESPONSIBILITY BEFORE THEY RECEIVE PLANS FOR A SPECIFIC PROJECT. IF THE BIDDER FAILS TO QUALIFY, PLANS WILL BE DENIED HIM. THE EXAMINATION WILL BE BASED UPON THE REPORT SUBMITTED BY THE BIDDER ON THE STANDARD QUESTIONNAIRE AND FINANCIAL STATEMENT ADOPTED BY THE JOINT CONFERENCE ON CONSTRUCTION PRACTICES. THE QUALIFICATIONS INCLUDE A SATISFACTORY SHOWING AS TO EXPERIENCE, KNOWLEDGE OF THE JOB IN HAND, AN ADEQUATE PLAN OF PROCEDURE, EQUIPMENT, AND FINANCIAL STRENGTH. THIS INFORMATION WILL BE HELD IN STRICT CONFIDENCE EXCEPT THAT STATE AND FEDERAL OFFICIALS MUST BE EXPECTED TO EXCHANGE INFORMATION CONCERNING PROSPECTIVE BIDDERS. HABITUAL TARDINESS ON THE PART OF THE BIDDERS IN COMPLETING OTHER PROJECTS WILL NOT BE OVERLOOKED UNDER THE ITEM OF EXPERIENCE.

ANOTHER INNOVATION, THE RESPONSE TO WHICH HAS BEEN VERY GRATIFYING, CONSISTS IN THE PRELIMINARY FALL ADVERTISING OF PARK-ROAD PROJECTS, TO ENABLE PROSPECTIVE BIDDERS TO LOOK OVER THE WORK WITHOUT SNOW COVERING. THIS IS NOT THE FINAL ADVERTISING OF THE PROJECT AND MAY NOT STATE THE DATE OF THE BID OPENING.

IT IS AN IMPROVEMENT IN THE PROCEDURE DESIGNED TO OVERCOME THE DELAY IN BEGINNING CONSTRUCTION OPERATIONS, CAUSED BY THE WINTER OR SPRING LETTING OF CONTRACTS. IN THE HIGH SIERRA, CASCADE, AND ROCKY MOUNTAINS, IT IS IMPOSSIBLE TO EXPECT WORKING-WEATHER CONDITIONS MUCH BEYOND 130 DAYS, SOMETIMES 150 DAYS. OBVIOUSLY EVERY EFFORT MUST BE BENT TOWARD UTILIZING THIS WEATHER.

DR. HEWES ALSO SUGGESTED THAT THERE WOULD BE A QUICK RESPONSE IN THE NUMBER AND QUALITY OF BIDDERS IF ENGINEERS WOULD INCREASE THE PROMPTNESS OF RELIABLE MONTHLY PAYMENTS AND THE SPEED OF FINAL SETTLEMENTS. THE NEW GOVERNMENT CONTRACT FORM REDUCES THE RETENT FROM 15 TO 10 PER CENT AND PROVIDES THAT THIS MAY BE WAIVED AFTER THE PROJECT IS 50 PER CENT COMPLETED. THE NEW FORM ALSO PERMITS BIDDERS' BONDS.

BUREAU MAKES RAPID SURVEY OF NEW ENGLAND FLOOD DAMAGE

CONTRIBUTED BY G. G. CLARK OF THE DIVISION OF CONTROL

(NOT FOR RELEASE)

IN RESPONSE TO REQUESTS FROM THE GOVERNORS OF VERMONT AND NEW HAMPSHIRE, THE BUREAU UNDERTOOK AND COMPLETED A RAPID SURVEY OF THE NEW ENGLAND FLOOD DAMAGE. THE SURVEY, THE FIELD WORK FOR WHICH CONSUMED ABOUT ONE MONTH'S TIME, REQUIRED THE IMMEDIATE ORGANIZATION OF A STATISTICAL FORCE IN ORDER TO SECURE FIRST-HAND INFORMATION CONCERNING THE EXTENT OF THE DAMAGE BEFORE THE EVIDENCE HAD BEEN OBLITERATED BY RECONSTRUCTION AND REPAIR WORK.

THE FLOOD WAS CAUSED BY AN UNPRECEDENTED RAINFALL OF MORE THAN 8 INCHES, WHICH OCCURRED DURING NOVEMBER 3-4, 1927, AND EXTENDED PRACTICALLY THROUGHOUT VERMONT AND THE GREATER PART OF NEW HAMPSHIRE. THE HIGHWAY AND RAILROAD SERVICE OF VERMONT WAS INTERRUPTED AT MANY POINTS AND, TO A LESSER DEGREE, A SIMILAR CONDITION EXISTED IN NEW HAMPSHIRE.

THE MOUNTAINOUS CHARACTER OF THE COUNTRY ACCELERATED THE DISCHARGE OF THE RAIN WATER INTO THE RIVERS AND PRODUCED STAGES OF HIGH WATER MORE EXTREME THAN HAD BEEN PREVIOUSLY RECORDED. THIS CAUSED THE DESTRUCTION OF BRIDGES, BOTH RAILWAY AND HIGHWAY, AND OF THE ROADS THEMSELVES ADJACENT TO STREAMS.

THE RESULTS OF THE SURVEY SHOWED, FOR EACH STATE, THE DAMAGE DONE TO FEDERAL-AID PROJECTS COMPLETED OR UNDER CONSTRUCTION, THE DAMAGE TO STATE-AID AND TRUNK-LINE ROUTES, STATE PROJECTS, AND TOWN ROADS, THUS INDICATING THE SOURCES AND AMOUNTS OF FUNDS REQUIRED TO REPLACE OR REPAIR THE DAMAGED SECTIONS.

FIELD ORGANIZATION

DISTRICT ENGINEER GUY H. MILLER, TROY, N.Y., WITH JURISDICTION OVER THE FIELD OPERATIONS OF FEDERAL HIGHWAY WORK IN THESE TWO STATES, WAS PLACED IN CHARGE OF THE SURVEY. FIELD HEADQUARTERS WERE OPENED IN THE POST OFFICE BUILDING AT MONTPELIER, VT., ABOUT NOVEMBER 26, WITH MR. MILLER IN CHARGE. MR. J. A. WHITTAKER, FEDERAL REPRESENTATIVE IN NEW HAMPSHIRE, AT CONCORD, ASSUMED CHARGE OF THE SURVEY IN THAT STATE UNDER GENERAL INSTRUCTIONS FROM MR. MILLER.

A THREE-PAGE FIELD-FORM WAS DEVELOPED FOR THE USE OF THE FIELD APPRAISERS ON BRIDGE DAMAGE, WHILE A SINGLE-PAGE FORM SUFFICED FOR HIGHWAY APPRAISAL. THE SALIENT FEATURES OF THE BRIDGE FORM WERE AS FOLLOWS:

1. - LOCATION OF THE BRIDGE SITE.
2. - CLASS OF HIGHWAY SERVED; VIZ., FEDERAL-AID, STATE-AID, TRUNK-LINE, OR TOWN.
3. - DESCRIPTION OF BRIDGE: KIND, SPAN, ETC.
4. - DESCRIPTION OF DAMAGE SUFFERED BY SUPERSTRUCTURE, SUBSTRUCTURE, AND APPROACHES.
5. - RECOMMENDATIONS FOR NEW WORK, INCLUDING RELOCATION, RAISING OF GRADE, BANK PROTECTION, AND CHANNEL CONTROL.
6. - ESTIMATES OF COST OF NEW SPAN, PIERS, APPROACHES, BANK PROTECTION, CHANNEL CONTROL, ETC.

THE HIGHWAY FORM INDICATED THE LOCATION OF THE DAMAGED SECTIONS ALLOCATED BY ROUTES. THE ESTIMATES OF DAMAGE INCLUDED THE LENGTH, WIDTH, AND DEPTH OF THE WASHED OUT PORTIONS, AND THE QUANTITIES REQUIRED TO REPAIR THE FILLS, CUTS, AND SURFACING.

UNIT PRICES FOR THE ITEMS OF ROAD AND BRIDGE REPAIR AND REPLACEMENT WERE DEVELOPED FROM THE AVERAGE PRICES PAID FOR SUCH ITEMS IN CONTRACT WORK ACCOMPLISHED DURING 1927.

By November 29 a combined field force composed of engineers from the Washington office and from District 9, totalling 13 men, was detailed to the investigation of the damaged sections. Vermont and New Hampshire are administratively divided into twelve and ten districts, respectively, under the supervision of a commissioner or district engineer, who reports to the State Highway Commissioner. A Bureau representative was assigned to each district to work in cooperation with the State representative who served as an adviser as to the location of the damaged sections and as to ways and means of reaching and appraising them.

As rapidly as inspections were completed, the appraisal sheets were mailed to Montpelier or Concord. On completion of the work in one district, the appraiser was assigned to another district. Inspections were made in each of the twelve districts in Vermont, while only seven districts were covered in New Hampshire - three in the southern section of the State suffering little or no damage.

FIELD CONDITIONS

Damaged bridges and culverts were estimated by the Highway Department of Vermont to total 1,249, thus imposing many obstructions to highway traffic, while cross-State railway traffic was completely stopped during the progress of the survey. Thus, the use of detours over minor roads became imperative. Temperatures below freezing generally prevailed, with a blanket of snow after about December 8. The period of daylight during the survey was limited to about nine hours per day, which necessarily increased the number of days spent in the field.

Because of the difficulties of travel, little personal supervision could be given to the appraisers in the field, although frequent conferences were held by telephone.

MONTPELIER OFFICE

The appraisal data, upon being received from the field, were divided by districts and further subdivided into classes of highways. Each report after being given an identification number, was examined for consistency of prices, in the case of highway damage. For bridges, a more complete examination,

COVERING THE LENGTH OF SPAN, TYPE, AND ESTIMATED COST, ETC., WAS MADE BY A BRIDGE ENGINEER FROM THE WASHINGTON OFFICE WHO MADE A PERSONAL VISIT TO PRACTICALLY ALL OF THE BRIDGES DAMAGED BY THE FLOOD IN VERMONT, AND THE MORE IMPORTANT BRIDGES IN NEW HAMPSHIRE.

REPORTS WERE THEN ENTERED ON A SCHEDULE MADE UP BY STATE DISTRICTS, SHOWING THE IDENTIFICATION NUMBER OF THE REPORT, THE NEW WORK TO BE DONE, THE LENGTH OF THE DAMAGED SECTION, AND THE ESTIMATED COST OF REPLACEMENT, WHICH WAS INDICATED AS ROAD OR BRIDGE DAMAGE. THESE COSTS WERE ENTERED UNDER THE APPROPRIATE COLUMN HEADED "FEDERAL ROUTE", "STATE-AID ROUTE", AND "TOWN ROUTE." SCHEDULES FOR DISTRICTS WERE TOTALED, DIVIDED INTO ROAD AND BRIDGE DAMAGES, AND POSTED TO A RECAPITULATION SHEET FOR EACH STATE. IN THE MONTPELIER OFFICE, REPORTS WERE REVIEWED, CLASSIFIED, AND POSTED AS RAPIDLY AS THEY WERE RECEIVED.

BY DECEMBER 16 THE FIELD AND OFFICE WORK IN VERMONT WAS PRACTICALLY COMPLETED, AND ON DECEMBER 17 MR. MILLER TRANSFERRED HEADQUARTERS TO CONCORD, N. H., WHERE FIELD WORK WAS ABOUT COMPLETED.

THE REVIEW AND ASSEMBLY OF THE NEW HAMPSHIRE DATA WAS IMMEDIATELY UNDERTAKEN. ON DECEMBER 24 FINAL FIGURES WERE OBTAINED FOR NEW HAMPSHIRE, AND PRACTICALLY COMPLETE FIGURES WERE AT HAND FOR VERMONT. THE FIELD PARTY WAS THEN DISBANDED AND THE COMPLETE FILES OF THE FIELD DATA WERE SENT TO THE WASHINGTON OFFICE. A FEW REPORTS, DELAYED IN THE MAILS, AND COVERING INSPECTIONS IN VERMONT, WERE RECEIVED AFTER THE RETURN TO WASHINGTON AND WERE INCORPORATED IN THE FINAL FIGURES.

GENERAL PURPOSE OF THE SURVEY

HIGHWAY IMPROVEMENT IN THE TWO STATES HAS BEEN AND IS, TO A CONSIDERABLE EXTENT, A COOPERATIVE PROCEDURE; THAT IS, FEDERAL ROUTES ARE IMPROVED WITH FEDERAL AND STATE FUNDS, STATE-AID AND TRUNK-LINE ROUTES WITH STATE AND TOWN FUNDS, STATE ROADS (LIMITED TO A SMALL MILEAGE) WITH STATE FUNDS, AND TOWN ROADS WITH TOWN FUNDS, THE TOWN UNIT BEING APPROXIMATELY COMPARABLE WITH THE MIDDLE WEST TOWNSHIP.

WHILE A LARGE AMOUNT OF DETAILED INFORMATION WAS SECURED CONCERNING BRIDGES DESTROYED, IT WAS NOT CONTEMPLATED THAT THE DATA SHEETS FOR A PARTICULAR PROJECT WOULD BE USED AS THE SOLE BASIS FOR PLANNING NEW WORK. THE ESTIMATES OF DAMAGES TO BRIDGES WERE PREPARED ON THE BASIS OF THE PRESENT REPLACEMENT COST WITH

AN ADEQUATE STRUCTURE, AS IN GENERAL NO DATA WERE AVAILABLE TO SHOW THE ORIGINAL COST OF THE STRUCTURES. MANY OF THE OLD BRIDGES WERE COMPLETELY DESTROYED. MANY OF THEM WERE BUILT OF WOOD AND WERE NOT WELL ADAPTED TO THE REQUIREMENTS OF PRESENT-DAY TRAFFIC.

DAMAGES TO THE ROADS WERE ESTIMATED ON THE BASIS OF RE-CONSTRUCTION OR RELOCATION OF THE ROADWAY, USING MATERIALS SIMILAR TO THOSE CONTAINED IN THE DAMAGED SECTIONS.

THE RAPID COMPLETION OF THE SURVEY UNDER SUCH DIFFICULTIES OF WEATHER, TRAVEL, AND TEMPERATURE IS DUE TO THE SPLENDID ORGANIZATION DEVELOPED BY MR. MILLER, THE AID GIVEN BY THE PERSONNEL OF THE TWO STATE HIGHWAY DEPARTMENTS, AND THE EFFICIENT SERVICE RENDERED BY THE ENGINEERS OF THE BUREAU WHO WERE DETAILED TO THE FIELD INSPECTIONS.

A BRIEF SUMMARY OF THE ESTIMATED COST OF REPAIRS AND REPLACEMENTS CAUSED BY THE FLOOD FOLLOWS:

VERMONT

FLOOD DAMAGE TO ROADS AND BRIDGES
PRELIMINARY SURVEY BY THE BUREAU OF PUBLIC ROADS

	ROADS	BRIDGES	TOTALS
FEDERAL-AID PROJECTS	\$ 97,913	\$ 122,200	\$ 220,113
FEDERAL-AID ROUTES, OUTSIDE OF LIMITS OF PLACES HAVING MORE THAN 2,500 POPULATION	885,300	1,206,720	2,092,020
FEDERAL-AID ROUTES EXCLUDED AS ABOVE		<u>341,600</u>	<u>341,600</u>
TOTAL FEDERAL SYSTEM	983,213	1,670,520	2,653,733
STATE-AID SYSTEM	690,930	2,263,122	2,954,052
TOWN SYSTEM	<u>399,288</u>	<u>1,370,396</u>	<u>1,769,684</u>
TOTALS	\$2,073,431	\$5,304,038	\$7,377,469

NEW HAMPSHIRE

FLOOD DAMAGE TO ROADS AND BRIDGES.
PRELIMINARY SURVEY BY THE BUREAU OF PUBLIC ROADS

	ROADS	BRIDGES	TOTALS
FEDERAL-AID PROJECTS \$	5,790.50	\$ 28,095.00	\$ 33,885.50
FEDERAL-AID ROUTES, OUTSIDE OF LIMITS OF PLACES HAV- ING MORE THAN 2,500 POPULATION	136,287.50	433,145.00	569,432.50
*FEDERAL-AID ROUTE IN THE TOWN OF WALPOLE WHICH MAY CONTAIN MORE THAN 2,500 POPULATION		50,000.00	50,000.00
TOTAL FEDERAL SYSTEM	142,078.00	511,240.00	653,318.00
STATE ROADS	148,240.00	83,500.00	231,740.00
STATE-AID AND TRUNK-LINE ROADS	230,584.75	326,027.00	556,611.75
TOWN ROADS	706,618.46	524,426.00	1,231,044.46
	1,227,521.21	1,445,193.00	2,672,714.21
FOREST PROJECTS	17,595.00	19,830.00	37,425.00
TOTALS	\$1,245,116.21	\$1,465,023.00	\$2,710,139.21

*DAMAGES IN THE TOWN OF WALPOLE CONSISTED OF THE DESTRUCTION OF THE APPROACH AND UNDERPASS AT THE EAST END OF AN INTERSTATE BRIDGE TO BELLOWS FALLS, VERMONT. TOTAL DAMAGE ESTIMATED TO BE \$100,000 - ONE-HALF TO BE PAID BY THE RAILROAD.

DISTRIBUTION OF SURPLUS WAR MATERIAL PRACTICALLY COMPLETED

(NOT FOR RELEASE)

THE DISTRIBUTION OF THE SURPLUS WAR MATERIAL WHICH, SINCE 1919, HAS BEEN ADMINISTERED BY THE BUREAU, WAS PRACTICALLY DISCONTINUED ON JUNE 30 LAST. BY THAT TIME THE SUPPLY OF MATERIAL SUITABLE FOR ROAD WORK HAD BEEN PRACTICALLY EXHAUSTED, AND THERE REMAINED ONLY A LIMITED SUPPLY OF EXPLOSIVES, DISTRIBUTION OF WHICH FOR AGRICULTURAL PURPOSES WILL BE DISCONTINUED BY JULY 1, 1928, AND THEREAFTER ALL EXPLOSIVES WILL BE RESERVED FOR USE BY GOVERNMENT AGENCIES. AT THE PRESENT RATE OF DISTRIBUTION IT IS EXPECTED THAT THE AVAILABLE SUPPLY OF EXPLOSIVES WILL LAST FOR ABOUT TWO YEARS MORE.

SINCE THE WORK OF DISTRIBUTION WAS BEGUN, A WIDE VARIETY OF MATERIAL HAS BEEN SHIPPED FROM THE VARIOUS CAMPS AND CONCENTRATION POINTS THROUGHOUT THE COUNTRY, THE TOTAL AS OF JANUARY 1, 1928, AMOUNTING TO MORE THAN 972,833,000 POUNDS WITH AN ESTIMATED VALUE OF NEARLY \$262,392,000.

MATERIAL VALUED AT NEARLY \$224,737,000 HAS BEEN SHIPPED TO THE SEVERAL STATE HIGHWAY DEPARTMENTS, AND THIS MATERIAL, INCLUDING 30,627 MOTOR TRUCKS AND 4,754 AUTOMOBILES, IN MANY CASES HAS FORMED THE NUCLEUS ABOUT WHICH THE STATE DEPARTMENTS HAVE BUILT THEIR MAINTENANCE ORGANIZATIONS.

THE TOTAL NUMBER OF MOTOR VEHICLES DISTRIBUTED IS 36,749, THIS NUMBER INCLUDING ALL TRUCKS AND AUTOMOBILES DISTRIBUTED EITHER TO STATES OR TO GOVERNMENT DEPARTMENTS. IN ADDITION THERE HAVE BEEN DISTRIBUTED 3,227 TRACTORS, 3,807 TRAILERS, 9,833 WAGONS AND CARTS, A LARGE QUANTITY OF MISCELLANEOUS MOTOR VEHICLE AND TRACTOR SPARE PARTS, ENGINEER AND SHOP TOOLS, SHOP MACHINERY, RAIL AND ACCESSORIES, STRUCTURAL STEEL AND MISCELLANEOUS ROAD BUILDING SUPPLIES.

THE MATERIAL DISTRIBUTED TO GOVERNMENT AGENCIES HAS AN ESTIMATED VALUE OF APPROXIMATELY \$27,240,000, ALLOCATED AS FOLLOWS: BUREAU OF PUBLIC ROADS, \$7,082,800; FOREST SERVICE, \$2,609,800; NATIONAL PARK SERVICE, \$661,300; AND OTHER GOVERNMENT AGENCIES, \$16,856,100.

EXPLOSIVES DELIVERED TO STATE HIGHWAY DEPARTMENTS AND GOVERNMENT AGENCIES ARE INCLUDED IN THE ABOVE STATEMENTS OF VALUE.

THOSE DELIVERED TO VARIOUS STATE AGENCIES FOR DISTRIBUTION TO FARMERS FOR LAND CLEARING ACCOUNT FOR \$10,445,000, THE REMAINDER OF THE TOTAL VALUE OF ALL MATERIALS.

THE TOTAL DISTRIBUTION OF EXPLOSIVES FOR ALL PURPOSES UP TO JANUARY 1, WAS OVER 118,840,800 POUNDS. ITS ESTIMATED VALUE AT THE CURRENT MARKET PRICE, WITHOUT ACCESSORIES, WAS NEARLY \$17,315,000; AND AS THE MANUFACTURE AND DISTRIBUTION WAS MADE AT A COST OF \$6,060,900, THE SAVING TO THE STATE AND NATIONAL AGENCIES AND FARMERS, THAT RECEIVED IT, WAS UPWARDS OF \$11,254,000.

THE EXPLOSIVES DISTRIBUTED INCLUDED STRAIGHT AND MODIFIED T.N.T., GRENADE POWDER, PICRIC ACID, SODATOL, BLACK POWDER, DYNAMITE, AND PYRATOL. THE STRAIGHT T.N.T., AND THE GRENADE AND BLACK POWDER WERE SUITABLE FOR USE IN BULK AS RECEIVED FROM THE WAR DEPARTMENT AND WERE SO DISTRIBUTED. THE MODIFIED T.N.T., PICRIC ACID, SODATOL, AND PYRATOL WERE MANUFACTURED FROM SURPLUS WAR MATERIALS AND DISTRIBUTED IN CARTRIDGE FORM. THE DYNAMITE WAS OBTAINED BY THE EXCHANGE OF SURPLUS WAR MATERIALS FOR COMMERCIAL EXPLOSIVES.

THE FOLLOWING TABLES SUMMARIZE THE DISTRIBUTION OF ALL MATERIALS AS OF JANUARY 1, 1928.

UNITED STATES DEPARTMENT OF AGRICULTURE
 BUREAU OF PUBLIC ROADS
 WAR MATERIALS BOARD

STATEMENT SHOWING CLASS OF MATERIAL SHIPPED

Period: April 1, 1919 to January 1, 1923.

ITEM	WEIGHT SHIPPED (lbs)	ESTIMATED VALUE (dollars)
Motor Vehicles (36719)	255,884,678	\$ 101,808,899.40
Tractors (3227)	43,506,448	15,086,901.12
Trailers (3807)	12,563,183	2,284,120.00
Wagons and Carts (9833)	18,747,700	1,903,705.00
Motor Vehicle Spare Parts	29,714,250	24,232,131.50
Tractor Spare Parts	2,309,356	1,531,365.00
Engineer and Shop Tools	3,539,150	3,529,769.90
Shop Machinery	14,269,497	7,074,051.60
Rail and Accessories	71,040,340	1,065,605.10
Structural Steel	67,795,406	1,738,233.91
Hospital Supplies (To Govt. Agencies only)	2,047,116	2,366,134.00
Explosives and Accessories	118,840,834	20,029,728.25
Miscellaneous Road Building Supplies	332,574,935	79,741,043.31
TOTAL	972,532,893	\$ 262,391,688.09

UNITED STATES DEPARTMENT OF AGRICULTURE
 BUREAU OF PUBLIC ROADS
 WAR MATERIALS BOARD

SUMMARY SHOWING VALUE OF ALL SURPLUS WAR MATERIAL DISTRIBUTED

Period: April 1, 1919 to January 1, 1928.

Consignee	Value
Bureau of Public Roads	\$ 7,082,819.37
Forest Service	2,609,820.10
National Park Service	661,295.63
Other Government Agencies	16,856,120.60
State Highway Departments	224,736,549.72
Farmers for Land Clearing	10,445,082.67
	262,391,688.09

UNITED STATES DEPARTMENT OF AGRICULTURE
BUREAU OF PUBLIC ROADS
WAR MATERIALS BOARD

STATEMENT OF TRUCKS AND AUTOMOBILES DELIVERED TO
GOVERNMENT AGENCIES

Period: April 1, 1919 to July 1, 1927

	Light		Inter-		Medium		Heavy		Pierce		Standard		Kelly-		Misc. Total		Automobiles		Total Total	
	Aviation	National	National	Commercial	Commercial	Commercial	Commercial	Commercial	Commercial	Commercial	Commercial	Commercial	Commercial	Commercial	Commercial	Commercial	Commercial	Commercial		Commercial
Bu. Public Roads			13																	
Forest Service			21																	
Nat. Park Service	5		3																	
Dept. of Comm.																				
Bu. of Rec.																				
Indian Service																				
Public Health Ser.																				
Dist. of Colum.																				
U. S. Sol. Home																				
U. S. Housing Cor.																				
Dept. of Justice																				
Bu. of Markets																				
Office of Sec'y																				
& Mech. Shops																				
Bu. of Survey	1																			
F. E. Board																				
Bu. Animal Ind.	1																			
Entomology																				
Soils																				
Plant Ind.	2																			
Chemistry																				
Alaska Rd. Com.																				
Bu. Fisheries																				
TOTALS	9	38	49	3	4	106	77	212	2	50	13	10	49	16	24	90	132	133	61	523

NOTE: The status of motor vehicles as shown on this report includes all registrations by the U. S. Bureau of Public Roads.

UNITED STATES DEPARTMENT OF AGRICULTURE
BUREAU OF PUBLIC ROADS
FAR MATERIALS BOARD
STATEMENT OF TRUCKS AND AUTOMOBILES DELIVERED TO THE SEVERAL
STATE HIGHWAY DEPARTMENTS

Period: April 1, 1919 to July 1, 1921.

State	Light Aviation	Inter- National	Mesh Quad	Heavy Aviation	Pierce Federal	Standard White	Kelly- Ford	Misc. O.M.O. Trucks	Automobiles			Total Vehicles		
									Ford	Pierce	Misc.			
Alabama	10	3	77	31	7	134	87	15	30	426	57	42	103	529
Arizona	1	19	108	15	16	30	12	4	45	57	47	36	6	89
Arkansas	2	4	125	20	21	64	64	2	18	37	64	58	11	78
California	42	33	220	33	4	109	107	24	173	1,156	86	52	16	1,310
Colorado	21	2	161	29	16	69	10	7	13	169	43	23	4	76
Connecticut	3	1	40	10	10	9	27	9	10	24	17	6	3	28
Delaware	1	1	11	3	8	25	2	5	12	48	1	1	1	11
Florida	5	20	77	13	12	62	59	31	37	395	30	52	5	94
Georgia	13	29	204	30	12	103	110	40	18	950	130	46	12	1,188
Idaho	6	3	125	12	9	26	6	1	18	333	24	4	7	40
Illinois	20	5	315	67	88	152	84	34	71	1,221	118	48	25	1,911
Indiana	26	2	255	35	28	59	43	9	131	754	85	52	13	1,500
Iowa	26	2	177	28	21	70	48	2	13	61	65	43	5	904
Kansas	26	8	245	45	15	75	6	8	44	24	89	66	6	117
Kentucky	10	23	157	18	2	15	114	33	28	27	579	51	10	688
Louisiana	18	4	124	21	13	11	2	45	12	483	48	16	9	73
Maine	3	1	75	14	4	16	21	1	38	11	242	27	13	287
Maryland	3	2	111	66	4	27	51	2	7	58	505	16	14	56
Massachusetts	11	14	231	53	17	42	42	2	5	8	263	27	61	395
Michigan	32	4	137	37	22	92	107	23	32	49	1,010	78	13	1,168
Minnesota	8	12	132	24	16	8	42	7	50	58	731	54	33	826
Mississippi	1	12	293	34	12	8	29	8	8	49	464	55	8	519
Missouri	9	1	162	31	15	31	9	13	46	48	1,044	71	13	1,162
Montana	6	3	177	32	3	18	20	2	2	7	489	42	5	524
Nebraska	2	2	160	37	11	16	16	39	21	528	61	30	7	627
New Hampshire	17	2	142	18	10	40	27	1	13	322	20	19	7	370
New Jersey	34	2	268	132	16	51	37	2	18	1,052	10	34	11	1,071
New York	11	9	286	59	28	102	155	38	9	25	455	30	28	516
North Carolina	7	4	404	73	28	102	155	105	36	1,765	121	57	17	1,988
North Dakota	30	4	165	19	2	41	182	5	10	5	1,081	86	14	1,359
Oklahoma	10	38	278	12	2	20	2	19	33	353	30	18	4	405
Oregon	1	2	135	19	2	20	125	20	26	91	1,220	66	11	1,399
Pennsylvania	7	2	125	18	4	38	35	32	10	14	659	43	37	745
Rhode Island	11	17	198	41	12	23	9	45	39	673	38	3	11	725
South Carolina	35	13	295	91	46	21	307	28	59	1,106	122	8	24	1,260
Tennessee	10	19	77	12	10	71	64	8	20	486	3	12	4	195
Texas	2	3	158	5	5	45	5	45	21	28	595	32	4	669
Vermont	8	3	158	62	15	9	70	70	19	28	477	43	3	74
Virginia	14	6	98	14	12	30	24	15	49	31	477	43	26	551
Washington	3	6	75	21	1	22	31	17	28	49	624	77	14	743
West Virginia	24	2	114	24	26	45	13	16	131	116	1,679	159	90	1,972
Wisconsin	6	2	88	12	10	11	16	9	15	25	399	22	2	423
Wyoming	1	1	11	1	1	1	1	1	8	16	150	7	15	176
TOTAL	525	399	7,108	1,168	474	1,841	2,174	681	4,033	41,721	2,014	1,962	454	4751

NOTE: The status of motor vehicles as shown on this report includes all registrations by the U. S. Bureau of Public Roads.



UNITED STATES DEPARTMENT OF AGRICULTURE
BUREAU OF PUBLIC ROADS
WAR MATERIALS BOARD

SUMMARY OF EXPLOSIVES SHIPPED

Period: April 1, 1919 to January 1, 1926.

CONSIGNEE	T. N. T.	PICRIC ACID	BLACK POWDER AND MISC.		DYNAMITE	PYROXOL	TOTAL
			SODIUM	BLACK POWDER AND MISC.			
Bureau of Public Roads	8,214,950	1,420,000	486,450	124,476	1,770,550	1,544,900	13,561,326
U. S. Forest Service	312,000		821,700		1,161,800	2,876,650	5,172,150
National Park Service		30,000			1,205,220	344,300	1,549,520
Other Government Agencies	2,000	105,000	104,300	10,515	3,815,600	904,700	4,742,215
State Highway Commissions	14,708,775	2,801,950	2,824,488	2,218,799	171,800	8,883,250	31,609,082
Farmers for Land Clearing		7,720,461	14,119,150			40,536,950	62,376,561
TOTALS	23,237,725	12,077,411	18,356,088	2,353,890	8,124,970	54,690,750	118,840,834

All quantities shown in pounds.

STATUS OF CURRENT FEDERAL AID ROAD WORK

FOR THE FISCAL YEAR ENDING JUNE 30, 1928

AS OF DECEMBER 31, 1927.

B. P. R.-F. A.-A-1
M-DECEMBER 1927.-A-1

STATES	BALANCE OF FEDERAL AID FUND AVAILABLE FOR NEW PROJECTS			* UNDER CONSTRUCTION			APPROVED FOR CONSTRUCTION			AMOUNT PAID BY STATES FISCAL YEAR			COMPLETED AND PAID DURING FISCAL YEAR			AGREEMENTS NOW IN FORCE			P. S. & E. RECOMMENDED FOR APPROVAL BY DISTRICT ENGINEER			STATES
	Federal Aid	Mileage		Federal Aid	Mileage		Federal Aid	Mileage		Federal Aid	Mileage		Federal Aid	Mileage		Federal Aid	Mileage		Federal Aid	Mileage		
		Original	Stage		Original	Stage		Original	Stage		Original	Stage		Original	Stage		Original	Stage		Original	Stage	
ALABAMA	4,178,918.40	507.2	1.9	255,844.44	39.5	24.9	224,561.70	13.6	1,044,491.80	33.6	3,314,457.50	396.6	1,120,306.34	150.1	24.9	ALABAMA						
ARIZONA	3,990,180.11	827,674.26	66.1	17,284.44	0.2	0.6	451,065.92	16.7	224,260.25	26.1	827,674.26	66.1	17,284.44	0.2	0.6	ARIZONA						
ARKANSAS	2,550,709.69	231.3	4.4				28,122.64	0.2	1,373,566.24	23.0	1,735,591.29	230.5	327,868.63	0.8		ARKANSAS						
CALIFORNIA	5,076,302.87	3,534,759.02	150.6	34,662.03	9.4	5.7	1,329,916.26	77.9	1,134,324.72	32.9	2,713,739.34	111.4	955,691.71	48.5	6.7	CALIFORNIA						
COLORADO	3,515,685.90	3,437,204.51	285.1	50,657.34	2.9	12.4	48,466.64	0.9	530,090.64	1.9	3,176,126.90	271.1	311,135.05	16.9		COLORADO						
CONNECTICUT	5,185,583.71	10,370,103.65	103.0	87,067.30	5.5	2.0	357,426.33	23.7	10,283,035.95	102.9	1,595,955.08	69.5	82,928.30	5.5		CONNECTICUT						
DELAWARE	365,625.26	232,069.47	15.3						232,069.47	15.3						DELAWARE						
FLORIDA	1,750,591.77	2,849,989.14	170.2	269,730.00	18.0	2.0	1,387,982.49	38.8	2,849,989.14	170.2	2,849,989.14	170.2	269,730.00	18.0		FLORIDA						
GEORGIA	2,084,070.41	2,657,948.76	175.3	79.6	59.7	50,000.00	10.7	737,819.13	90.2	2,657,948.76	168.2	2,550,490.44	7.1	2.5	GEORGIA							
IOWA	1,046,304.64	1,352,743.54	145.0						1,352,743.54	145.0						IOWA						
ILLINOIS	4,495,272.55	7,599,982.62	534.2	1,073,102.31	76.4	2.3	1,896,730.33	191.9	7,599,982.62	534.2	7,009,350.29	522.8	1,683,734.64	107.8	2.3	ILLINOIS						
INDIANA	1,830,073.31	5,355,213.54	334.0	284,900.00	33.4	0.6	1,546,935.32	15.0	5,355,213.54	334.0	8,124,733.48	522.8	556,290.06	44.6	0.6	INDIANA						
KANSAS	2,171,429.34	5,555,148.33	747.7	13.4	20.4	1,790,920.50	42.1	1,831,745.98	42.1	5,555,148.33	747.7	4,970,231.29	381.2	6.4	44.1	KANSAS						
KENTUCKY	1,421,525.81	4,555,251.11	420.9	35,371.93	25.4	5.0	659,941.60	51.2	1,457,472.07	46.9	4,479,208.52	409.0	181,414.32	15.7	12.4	KENTUCKY						
LOUISIANA	1,054,508.26	1,781,995.28	140.0	832,170.56	53.6	7.5	490,955.44	44.9	1,781,995.28	140.0	2,134,637.19	115.3	459,478.56	78.1		LOUISIANA						
MAINE	1,735,312.82	745,846.35	55.3	43,956.00	5.6		443,485.16	40.5	745,846.35	55.3	701,633.44	50.9	88,169.91	10.0		MAINE						
MARYLAND	3,804,192.05	913,271.29	89.1				152,740.39	15.4	1,344,893.87	15.4	789,011.29	80.9	144,200.00	8.2		MARYLAND						
MASSACHUSETTS	1,954,856.00	1,855,900.01	15.4	89,695.00	5.9		158,264.74	9.6	189,264.74	9.6	1,819,545.01	112.4	134,340.00	8.9		MASSACHUSETTS						
MICHIGAN	2,564,893.43	6,509,100.00	210.7	49,000.00	3.6	6.5	826,467.60	31.6	6,509,100.00	210.7	4,026,577.75	309.6	2,228,060.18	99.3	6.5	MICHIGAN						
MINNESOTA	1,137,471.43	6,509,100.00	210.7	146,208.83	29.9	26.9	1,667,108.12	33.4	1,250,534.72	9.9	8,932,530.40	317.3	280,585.23	37.0		MINNESOTA						
MISSISSIPPI	2,905,095.12	3,582,019.13	264.1	182,843.62	24.0	38.6	1,234,973.65	99.0	1,720,735.62	99.0	3,518,649.57	260.0	256,213.18	28.1	3.9	MISSISSIPPI						
MISSOURI	5,530,103.10	2,533,153.05	302.3	689,437.11	132.5	8.4	289,989.05	50.5	1,193,380.38	289,989.05	50.5	4.9	3,311,687.66	434.7	8.4	MISSOURI						
MONTANA	1,905,080.31	5,140,653.68	1,221.9	269,479.27	50.5	39.6	1,750,774.35	347.7	1,738,343.88	1,750,774.35	347.7	5,001,815.44	1,218.6	407,327.51	53.8	67.6	MONTANA					
NEBRASKA	1,370,482.65	1,560,964.64	185.3	41,091.94	8.7	26.0	472,413.31	67.9	472,413.31	495,968.11	67.9	1,390,311.92	177.1	150,928.76	23.5		NEBRASKA					
NEVADA	335,122.00	892,354.17	55.5	37,459.59	5.5		87,026.72	10.4	87,026.72	87,026.72	10.4	205,289.04	40.9		NEVADA							
NEW HAMPSHIRE	2,450,950.22	2,519,773.46	214.8	720,802.50	45.6	8.8	868,981.50	52.8	2,519,773.46	214.8	11,445,981.45	712.2	228,479.35	5.5		NEW HAMPSHIRE						
NEW JERSEY	5,907,290.53	10,784,328.95	570.6				430,188.20	52.8	868,981.50	430,188.20	52.8	2,391,294.11	112.2	59,850.00	4.0		NEW JERSEY					
NEW YORK	2,244,289.97	1,583,015.52	92.0	90,500.00	7.3	34.6	787,000.41	63.3	1,583,015.52	92.0	11,445,981.45	712.2	59,850.00	4.0		NEW YORK						
NORTH CAROLINA	1,179,902.00	2,300,831.14	718.4	239,146.14	112.6	33.5	1,008,256.07	1,531,977.04	1,008,256.07	1,531,977.04	317.0	1,250,508.32	57.8	402,907.20	41.5	5.8	NORTH CAROLINA					
NORTH DAKOTA	1,337,532.05	5,431,940.39	303.2	1,054,095.00	61.2	4.2	1,397,447.08	105.0	1,397,447.08	1,397,447.08	105.0	2,291,610.28	240.2	438,097.88	81.7	71.9	NORTH DAKOTA					
OHIO	1,739,732.05	1,739,732.05	77.3	1,070,816.30	123.5	11.4	679,545.06	9.6	1,739,732.05	1,739,732.05	11.4	3,291,610.28	240.2	2,291,610.28	124.2		OHIO					
OKLAHOMA	1,641,535.01	1,374,637.18	77.3	606,016.34	40.0	3.0	95,970.87	69.6	1,641,535.01	1,641,535.01	3.0	2,380,357.05	346.2	1,205,500.69	117.8		OKLAHOMA					
PENNSYLVANIA	4,359,094.24	3,361,610.23	361.5	606,016.34	40.0		95,970.87	69.6	1,641,535.01	1,641,535.01	3.0	5,930,159.33	377.3	394,446.21	7.5		PENNSYLVANIA					
RHODE ISLAND	683,722.53	336,638.74	20.8	182,773.67	9.2		227,205.00	15.1	295,987.48	227,205.00	15.1	381,902.41	23.5	107,610.00	26.4		RHODE ISLAND					
SOUTH CAROLINA	1,179,794.02	2,179,952.91	240.8	26,000.00	17.9	2.5	647,435.11	56.7	2,179,952.91	240.8	2,100,502.60	209.4	145,150.31	48.9	42.8	SOUTH CAROLINA						
SOUTH DAKOTA	1,175,176.53	2,625,742.50	772.7	516,274.89	54.0	12.5	1,175,176.53	287.7	2,625,742.50	772.7	3,593,711.90	303.7	1,378,089.08	91.2	14.5	SOUTH DAKOTA						
TENNESSEE	7,207,357.58	4,805,940.39	240.7	2,075,125.97	181.1	138.7	2,248,514.40	325,950.84	4,805,940.39	240.7	5,903,638.56	431.3	1,711,738.57	207.9	111.4	TENNESSEE						
TEXAS	1,048,498.68	2,035,223.37	169.9	34,058.72	4.0		853,325.29	50.5	2,035,223.37	169.9	1,816,100.99	156.3	153,851.50	7.5		TEXAS						
VERMONT	335,746.54	6,337,331.78	43.5				412,242.35	30.5	6,337,331.78	43.5	2,183,630.86	112.5	181,930.00	13.2		VERMONT						
VIRGINIA	1,458,628.90	2,179,499.34	113.2	83,900.23	0.2		202,124.28	14.0	1,458,628.90	113.2	1,819,630.00	125.1	124,000.00	9.0		VIRGINIA						
WASHINGTON	1,914,545.73	1,400,600.00	71.8	543,000.00	63.5		415,736.32	5.3	1,914,545.73	71.8	1,819,630.00	125.1	124,000.00	9.0		WASHINGTON						
WEST VIRGINIA	944,758.39	2,758,168.42	233.7	54,721.66	4.0		699,546.52	48.6	877,505.11	699,546.52	48.6	2,815,245.06	222.9	281,645.00	17.5		WEST VIRGINIA					
WISCONSIN	4,485,974.97	319.3	43.1	49,200.00	2.7		1,490,577.91	146.5	0.9	3,706,282.42	285.3	39.6	489,782.55	34.8	3.5	WISCONSIN						
WYOMING	1,171,600.36	1,491,822.84	25.0	39,155.55	19.8		757,973.29	44.1	735,475.29	757,973.29	44.1	1,417,830.53	245.0	175,786.72	15.1		WYOMING					
HAWAII	1,171,600.36	1,491,822.84	25.0				70,440.00	4.7	245,005.77	70,440.00	4.7	491,952.54	57.0		HAWAII							
TOTALS	110,903,334.92	145,627,433.46	13,433.1	12,895,511.85	1,413.2	338.0	48,412,469.64	3,829,291.82	110,903,334.92	13,433.1	113,139,811,997.4	1,676.7	21,243,973.49	1,676.7	467.9	TOTALS						

* INCLUDES PROJECTS REPORTED COMPLETED (FINAL WHENEVER NOT YET PAID) TOTAL VET PAID - FEDERAL AID \$53,473,669.30 - MILEAGE, ORIGINAL 4,916.2 - STAGE 831.3

BUREAU EXHIBIT AT CLEVELAND CONVENTION OF THE A.R.B.A.

(NOT FOR RELEASE)

THE MOST PROMINENT LOCATION IN THE CLEVELAND AUDITORIUM WAS RESERVED FOR THE BUREAU'S EXHIBIT AT THE NATIONAL GOOD ROADS SHOW HELD IN CONJUNCTION WITH THE ANNUAL CONVENTION OF THE AMERICAN ROAD BUILDERS ASSOCIATION AT CLEVELAND, OHIO, FROM JANUARY 9 TO 13. EXTENDING ENTIRELY ACROSS THE IMMENSE STAGE OF THE AUDITORIUM, THE BUREAU'S CONTRIBUTION COULD BE SEEN FROM END TO END OF THE EDIFICE.

THE OUTSTANDING FEATURE OF THE DISPLAY, DESIGNED ESPECIALLY TO BE SEEN FROM A DISTANCE, WAS A HUGE ELECTRIC SIGN PICTURING IN DIAGRAMMATIC FORM THE TRANSCONTINENTAL COURSE OF U. S. ROUTE 40. THE ROUTE WAS STUDDED WITH RED INCANDESCENT ELECTRIC BULBS WHICH LIGHTED PROGRESSIVELY FROM EAST TO WEST EVERY 10 SECONDS, CREATING THE EFFECT OF A WESTWARD BUILDING OF THE HIGHWAY.

AT THE EASTERN END OF THE ROUTE THERE WAS A PAINTING OF A BATHING SCENE AT ATLANTIC CITY, AND AT THE WESTERN TERMINUS WAS A SUNSET VIEW OF THE GOLDEN GATE, THUS INDICATING THE INTERCOASTAL CHARACTER OF THE GREAT MIDCONTINENT HIGHWAY. STATE BOUNDARIES AND THE PRINCIPAL CITIES ON THE ROUTE WERE CLEARLY MARKED AND IN EACH STATE THERE WAS A REPLICA OF THE STANDARD U.S. SHIELD MARKER BEARING THE NUMERALS 40 AND THE NAME OF THE STATE.

EXTENDING THE FULL LENGTH OF THE SIGN, THE SLOGAN "BUILD THE THROUGH ROADS THROUGH WITH FEDERAL AID" WAS PRINTED IN 14-INCH LETTERS; AND AT EACH END THERE WAS A BRIEF STATEMENT WITH REGARD TO THE CONDITION OF THE ROAD AND THE PART THAT FEDERAL AID HAS PLAYED IN ITS IMPROVEMENT.

ON THE LEFT END THE STATEMENT WAS AS FOLLOWS: "U.S. ROUTE 40 IS ONE OF THE TRANSCONTINENTAL ROUTES DESIGNATED BY STATE AND FEDERAL HIGHWAY OFFICIALS. IT IS CONTINUOUSLY PAVED FROM WILMINGTON, DEL., TO ST. MARY'S, KANS., A DISTANCE OF 1,234 MILES. FROM SALT LAKE CITY TO SAN FRANCISCO - 890 MILES - IT IS SURFACED; AND LESS THAN 14 PER CENT OF ITS 3,205-MILE LENGTH IS UNIMPROVED."

ON THE RIGHT WAS THE STATEMENT: "FEDERAL AID HAS BEEN A LARGE FACTOR IN THE IMPROVEMENT OF U.S. ROUTE 40. THE FEDERAL GOVERNMENT HAS ALLOTTED TO ITS IMPROVEMENT NEARLY 18 MILLION DOLLARS. FEDERAL-AID PROJECTS ON THE ROUTE INCLUDE 700 MILES OF PAVEMENT, 726 MILES OF SURFACED ROAD, 132 MILES OF GRADED ROAD, AND OVER 4 MILES OF BRIDGES."

THE SIGN, WHICH WAS 64 FEET LONG AND 10 FEET HIGH, WAS SUSPENDED ABOVE FIVE BOOTHS WHICH COMPLETED THE EXHIBIT. THE SUBJECTS OF THE BOOTH DISPLAYS WERE: WHAT FEDERAL AID HAS DONE FOR THE WESTERN STATES, THE NEW FREEDOM OF TRANSPORTATION, TAXATION WITHOUT REPRESENTATION, ROADS FROM SAVAGERY TO CIVILIZATION, AND WHAT FEDERAL AID HAS DONE FOR THE EASTERN STATES.

BECAUSE OF ITS STRATEGIC LOCATION, THE ATTRACTION OF ITS FLASHING ELECTRIC LIGHTS AND BRILLIANT PAINTINGS, AND THE GENERAL INTEREST IN ITS SUBJECT MATTER, THE EXHIBIT RECEIVED A GREAT DEAL OF FAVORABLE ATTENTION AND COMMENT.

MATERIALS ENGINEERS' INSTRUCTION COURSE IN PROGRESS IN WASHINGTON

CONTRIBUTED BY THE DIVISION OF TESTS.

(NOT FOR RELEASE)

A MATERIALS ENGINEERS' INSTRUCTION COURSE WAS BEGUN AT THE HEADQUARTERS OFFICE ON JANUARY 9 AND WILL CONTINUE UNTIL JANUARY 28. THE COURSE, WHICH IS UNDER THE DIRECTION OF THE DIVISION OF TESTS, CONSISTS OF A SERIES OF LECTURES COMBINED WITH LABORATORY WORK. WITH THE EXCEPTION OF THE OPENING SESSION, ALL THE LECTURES WILL BEGIN AT 9 A.M., AND WILL BE FOLLOWED BY A GENERAL DISCUSSION OF THE SUBJECT; THE LECTURE AND DISCUSSION TOGETHER TO CONSUME THE ENTIRE MORNING. IN THE AFTERNOON THE VARIOUS DISTRICT MATERIALS ENGINEERS, WHO HAVE BEEN DIVIDED INTO THREE GROUPS, WILL SPEND THEIR TIME IN THE LABORATORY. THE OBJECT OF THE COURSE IS TO FAMILIARIZE THE FIELD ENGINEERS WITH THE MODIFICATIONS IN THE METHODS OF TEST PRACTICE AND FIELD CONTROL THAT HAVE TAKEN PLACE SINCE THE LAST MATERIALS ENGINEERS' INSTRUCTION COURSE IN 1923. SATURDAYS WILL BE DEVOTED TO GENERAL DISCUSSIONS OF VARIOUS PROBLEMS IN WHICH THE MATERIALS ENGINEERS ARE INTERESTED, TO THE PREPARATION OF REPORTS AND TO STUDY IN THE LIBRARY.

THE LECTURE SCHEDULE FOLLOWS:

- JAN. 9 - OPENING REMARKS - - - - - E.F.KELLEY, B.P.R.
JAN. 12 - TESTING MACHINES - - - - - L.W.TELLER, B.P.R.
JAN. 13 - SUBGRADES - - - - - C.A.HOGENTGLER, B.P.R.
JAN. 14 - METAL CULVERTS - - - - - L.G.CARMICK, B.P.R.
GENERAL DISCUSSION OF REGULATIONS GOVERNING
MATERIALS CONTROL.
JAN. 16 - PAVEMENT TYPES - - - - - A.G.BRUCE, B.P.R.
JAN. 17 - FACTORS AFFECTING THE DURABILITY
OF AGGREGATES FOR CONCRETE - - G.F.LOUGH LIN, U.S.G.S.
JAN. 18 - HIGHWAY MATERIALS SPECIFICATIONS - J.H.STONE, B.P.R.
JAN. 19 - PERSONALITY AS AN AID TO THE
ENGINEER - - - - - H.S.FAIRBANK, B.P.R.
JAN. 20 - INTERPRETATION OF TEST RESULTS
NON-BITUMINOUS MATERIALS - - - - F.H.JACKSON, B.P.R.
BITUMINOUS MATERIALS - - - - - H.M.MILBURN, B.P.R.
JAN. 21 - DESIGN OF CONCRETE MIXTURES - - - - F.H.JACKSON, B.P.R.
JAN. 23 - DESIGN AND CONTROL OF BITUMINOUS
MIXTURES - - - - - W.J.EMMONS, MICH.
JAN. 24 - FIELD CONTROL OF CONCRETE - - - - - R.W.CRUM, IOWA.
JAN. 25 - CONTINUATION OF DISCUSSION OF FIELD
CONTROL OF CONCRETE - - - - - R.W.CRUM, IOWA.
JAN. 26 - ORGANIZATION AND OPERATION OF A STATE
HIGHWAY DIVISION OF MATERIALS - - H.S.MATTIMORE, PENNA.
JAN. 27 - GENERAL EXAMINATION
JAN. 28 - GENERAL DISCUSSION OF EXAMINATION PAPERS.

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BALTIMORE FIREMEN PROVE VALUE OF IMPROVED ROADS
AND MOTORIZED EQUIPMENT

(NOT FOR RELEASE)

AN UNPRECEDENTED SERIES OF MAJOR CONFLAGRATIONS OF INCENDIARY ORIGIN WHICH OCCURRED IN WASHINGTON DURING THE EARLY MORNING HOURS OF JANUARY 17 HAS GIVEN RESIDENTS OF THE NATIONAL CAPITAL A NEW AND IMPRESSIVE DEMONSTRATION OF THE BENEFITS OF ROAD IMPROVEMENT AND MOTORIZED TRANSPORTATION WHICH WILL NOT BE SOON FORGOTTEN.

THE FIRST ALARM WAS RECEIVED AT 10:41 O'CLOCK OF THE PRECEDING EVENING, FOLLOWED IN THE NEXT FEW HOURS BY 23 ALARMS FROM WIDELY SEPARATED SECTIONS OF THE CITY, SOME OF THEM FALSE, OTHERS FOR ACTUAL FIRES, FOUR OF WHICH WERE OF MAJOR PROPORTIONS. BY 2 A.M., THE CAPITAL FIRE CHIEF, HIS FORCES TAXED TO THE UTMOST, REALIZED THAT MORE HELP WOULD BE NEEDED.

FROM THIS POINT THE STORY IS TOLD AS IT APPEARED IN THE WASHINGTON EVENING STAR OF JANUARY 17.

"A FEW MINUTES AFTER 2 O'CLOCK THIS MORNING FIRE CHIEF WATSON TELEPHONED SUCCINCTLY TO THE BALTIMORE DEPARTMENT, 'WE NEED HELP'. LESS THAN 10 MINUTES LATER TENTH BATTALION CHIEF GEORGE D. OTTER'S LITTLE RED CAR WENT DASHING THROUGH THE STREETS AND INTO THE DARKNESS ON THE 40-MILE RUN TO THE CAPITAL.

"BEHIND HIM WERE DEPUTY CHIEF LEWIN H. BURKHART, CAPT. CHARLES T. GALLION, SUPERINTENDENT OF MACHINERY, AND P. W. WILKINSON, SECRETARY OF THE FIRE BOARD. AND BEHIND THEM, AT ONE-MINUTE INTERVALS, CAME THE 10 COMPANIES AND AN AMBULANCE IN CHARGE OF DR. F. H. OGDEN, SURGEON OF THE DEPARTMENT.

"IT WAS A WILD RIDE AS THE HUGE FIRE FIGHTERS, WITH HEADLIGHTS BLAZING AND SIRENS WIDE OPEN, WENT SHRIEKING THROUGH THE DARKNESS. CARS SCURRIED TO THE SIDE OF THE ROAD, LIGHTS FLARED UP IN HOUSES AND CURTAINS WERE RAISED AS THE MIGHTY CAVALCADE PLUNGED PAST.

"THE LITTLE RED CARS WERE FAR IN THE LEAD SKIMMING OVER THE ROAD AT A DIZZY PACE. BEHIND THEM, PACKED CLOSELY TOGETHER, WERE THE ENGINES, SWAYING, BOUNCING AND LURCHING FROM SIDE TO SIDE, BUT KEEPING UP THEIR SPEED. IN THE REAR, READY FOR ANY EMERGENCY, WAS THE AMBULANCE.

"A FEW MINUTES AFTER 3 - LESS THAN 50 MINUTES FROM THE TIME HE LEFT HIS HOUSE - CHIEF OTTER DREW UP AT No. 10 ENGINE HOUSE. THE OTHER OFFICIALS WERE CLOSE BEHIND HIM, AND NOT MANY MINUTES LATER THE ENTIRE FORCE WAS HERE. No. 10 ENGINE OF BALTIMORE MADE THE RUN IN EXACTLY 1 HOUR AND 17 MINUTES."

THRILLED AS THEY ARE BY THE NOCTURNAL EXPLOIT OF THE BALTIMORE FIREMEN, RESIDENTS OF THE TWO CITIES OLD ENOUGH TO RECALL EVENTS OF 24 YEARS AGO HAVE NOT FAILED TO CATCH THE TRUE MORAL OF THE TALE, WHICH IS THE GREAT DEGREE TO WHICH THE PERFORMANCE DEPENDED UPON THE MODERN PAVED ROAD, OVER WHICH THE RUN WAS MADE, AND THE WONDERFUL EFFICIENCY OF MOTORIZED EQUIPMENT.

THE BALTIMORE FIREMEN WERE REPAYING A DEBT OF 24-YEARS STANDING. IT WAS IN 1904 THAT THERE OCCURRED IN THAT CITY THE DISASTROUS FIRE THAT WIPED OUT THE ENTIRE BUSINESS DISTRICT, THE CONFLAGRATION REACHING SUCH PROPORTIONS THAT IT WAS NECESSARY TO CALL FOR HELP FROM WASHINGTON. AT THAT TIME THE INTERCITY ROAD WAS UNIMPROVED, AND EVEN IF THERE HAD BEEN MOTOR ENGINES - THEN UNHEARD OF - THE RUN WOULD HAVE BEEN PRACTICALLY IMPOSSIBLE. THE WASHINGTON AUTHORITIES - NO LESS ANXIOUS THAN THEIR BALTIMORE FRIENDS TO ANSWER THE CALL FOR AID - FOUND IT NECESSARY TO LOAD THEIR HORSE-DRAWN EQUIPMENT ON A RAILROAD TRAIN, AND ALTHOUGH THEY ARRIVED IN TIME TO RENDER TWO DAYS OF VALIANT SERVICE SHOULDER TO SHOULDER WITH THEIR BROTHERS OF BALTIMORE, THE TIME CONSUMED IN REACHING THE FIRE UNDOUBTEDLY CONTRIBUTED TO THE PROPORTIONS OF THE DISASTER.

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CORRECTION

ON PAGE 6 OF THE NOVEMBER, 1927, NEWS LETTER, IT WAS REPORTED THAT BOTH THE STANDARD NUMBERED SHIELD MARKERS AND THE MISCELLANEOUS SIGNS WERE 100 PER CENT ERECTED ON THE UNITED STATES HIGHWAYS IN THE STATE OF WASHINGTON. THIS WAS INCORRECT ACCORDING TO INFORMATION RECEIVED FROM MR. PURCELL WHO REPORTS THAT NO SHIELD MARKERS HAVE BEEN ERECTED IN THE STATE, AND STANDARD CAUTION AND MISCELLANEOUS SIGNS HAVE BEEN ERECTED BY THE WASHINGTON BRANCH OF THE AMERICAN AUTOMOBILE ASSOCIATION TO A LIMITED EXTENT ONLY.

BITUMINOUS-TREATMENT-OF-EARTH-ROADS EXPERIMENT
BEGUN IN SOUTH CAROLINA

CONTRIBUTED BY J. T. PAULS OF THE DIVISION OF TESTS

(NOT FOR RELEASE)

FOR THE PURPOSE OF DEVELOPING A SUITABLE BITUMINOUS TREATMENT FOR THE LOOSE-BONDED SAND-CLAY ROADS, CHARACTERISTIC OF THE SOUTHEAST COASTAL SECTION OF THE COUNTRY, THE BUREAU, IN COOPERATION WITH THE SOUTH CAROLINA STATE HIGHWAY DEPARTMENT, HAS CONSTRUCTED, DURING THE PAST YEAR, AN EXPERIMENTAL HIGHWAY. THE EXPERIMENTS COVER A 21-MILE SECTION EXTENDING FROM CONWAY TO GALIVANTS FERRY, SOUTH CAROLINA. THIS ROAD IS AN ARTERIAL HIGHWAY TO THE COAST AND ITS ADJACENT SUMMER RESORTS, AND CARRIES RELATIVELY HEAVY TRAFFIC IN THE SPRING AND SUMMER MONTHS. FOUR STAGES IN THE CONSTRUCTION OF THE DOUBLE SURFACE-TREATMENT ON A MIXED-IN-PLACE BASE ARE SHOWN IN THE ACCOMPANYING PHOTOGRAPHS.

THE SAND-CLAY SOIL, WITH WHICH THESE ROADS ARE SURFACED, POSSESSES LITTLE NATURAL BINDER, AND IS COMPOSED FOR THE MOST PART OF FINE-GRAINED SAND PARTICLES. AS A RESULT, THE SURFACES BREAK DOWN AND BECOME EXCEEDINGLY DUSTY IN DRY WEATHER AND, WHEN WET, THEY CUT UP RAPIDLY AND BECOME ALMOST IMPASSABLE. THE UNSTABLE NATURE OF THE ROAD SURFACES IN THIS REGION, PRECLUDED THE USE OF THE ORDINARY TYPE OF BITUMINOUS SURFACE TREATMENT, AND IT WAS DECIDED, THEREFORE, TO INVESTIGATE VARIOUS TYPES OF BITUMINOUS MIXED-IN-PLACE TREATMENTS.

A CONDENSED DESCRIPTION OF THE EXPERIMENTAL SECTIONS IS GIVEN IN THE ACCOMPANYING TABLE.



APPEARANCE OF THE ROAD AFTER SCARIFYING



APPLYING BITUMINOUS MATERIAL AND DISCING



MIXING AND SHAPING WITH GRADER



APPEARANCE OF THE DOUBLE SURFACE TREATMENT
ON A MIXED-IN-PLACE BASE

TABLE SHOWING THE GENERAL NATURE OF THE SEVERAL EXPERIMENTS
TOGETHER WITH THE MATERIALS USED.

Exp. No.	SECTION No.	DEPTH	MIXED BASE BITUMINOUS MATERIAL	BITUMINOUS SURFACE TREATMENT	COVER
1	A	2	ASPHALT 150-180 PEN. : CUT-BACK WITH NAPHTHA	PRIME-SAME AS MIX. BINDER-ASPHALT (HOT) 150-200 PEN.	STONE
1	B	2	ASPHALT 85-100 PEN. : CUT-BACK WITH NAPHTHA	PRIME-SAME AS MIX. BINDER-ASPHALT (HOT) 150-200 PEN.	STONE
2	A	2	DO	NO PRIME BINDER-SAME AS MIX.	STONE
2	B	2	DO	DO	PEA GRAVEL
2	C	2	DO	DO	SAND
2	D	2	ASPHALT 100-120 PEN. : CUT-BACK WITH NAPHTHA	DO	SAND
2	E	2	DO	DO	PEA GRAVEL
2	F	2	DO	DO	STONE
2	G	2	ASPHALT 150-180 PEN. : CUT-BACK WITH NAPHTHA	DO	STONE
2	H	2	DO	DO	PEA GRAVEL
2	I	2	DO	DO	SAND
3	--	2	STD. 5 ROAD OIL	PRIME-SAME AS MIX. (FOR MACHINE MAINTENANCE)	
4	A	3	STD. 5 ROAD OIL WITH PRESSURE STILL TAR.	NONE (FOR MACHINE MAINTENANCE)	
4	B	3	STD. 6 ROAD OIL WITH PRESSURE STILL TAR	DO DO	
4	C	3	FLUX A CUT-BACK WITH PRESSURE STILL TAR	DO DO	
5	A	2	ASPHALT 85-100 PEN. : CUT-BACK WITH NAPHTHA	PRIME-No. 4 ROAD OIL WITH PRESSURE STILL TAR	SOIL
5	B	2	DO	PRIME-ASPHALT 150-180 PEN. : CUT-BACK WITH NAPHTHA	SOIL
5	C	3	DO	DO	SOIL
5	D	3	DO	PRIME-No. 4 ROAD OIL WITH PRESSURE STILL TAR	SOIL
6	A	2	TAR 18-25 SPEC. VISC.	SAME AS MIX	SOIL
6	B	3	DO	DO	SOIL
6	C	2	DO	PRIME-SAME AS MIX BINDER-TAR 25-35 SPEC. VISC. (GOLD)	STONE
6	D	2	DO	PRIME-SAME AS MIX BINDER-TAR GRADE 2 (HOT)	STONE
6	E	2	DO	DO	STONE
7	A	2	ASPHALT 85-100 PEN. : CUT-BACK WITH NAPHTHA	PRIME-SAME AS MIX BINDER-ASPHALT (HOT) 150-200 PEN.	STONE
7	B	2	DO	DO	STONE
7	C	2	DO	NO PRIME BINDER-SAME AS MIX	STONE
8	--	--	UNTREATED SAND CLAY	PRIME-TAR 8-13 SPEC. VISC. BINDER-ASPHALT (HOT) 150-200 PEN.	STONE

CONSTRUCTION BY THE MIXED-IN-PLACE METHOD CONSISTED ESSENTIALLY OF SCARIFYING, SHAPING AND PULVERIZING THE ROAD SURFACE AFTER WHICH THE BITUMINOUS MATERIAL WAS APPLIED IN SEVERAL APPLICATIONS BY MEANS OF PRESSURE DISTRIBUTORS. THE SURFACE WAS DISCED LIGHTLY AFTER EACH APPLICATION. THIS PROVED VALUABLE IN PREVENTING LOSS OF THE LIGHTER CONSTITUENTS OF THE BITUMINOUS MATERIAL. MIXING WAS CARRIED ON BY MEANS OF A BLADE GRADER, THE PROCEDURE BEING TO CARRY THE TREATED MATERIAL FROM ONE SIDE OF THE ROAD TO THE OTHER. THIS PROCESS WAS CONTINUED UNTIL A UNIFORM MIXTURE WAS SECURED, AFTER WHICH THE MATERIAL WAS SPREAD, SHAPED, AND ALLOWED TO COMPACT UNDER TRAFFIC. FOR THOSE SECTIONS BUILT TO RECEIVE MACHINE MAINTENANCE THIS COMPLETED THE CONSTRUCTION. THE SECTIONS WHICH WERE TO RECEIVE A SURFACE TREATMENT WERE ALLOWED TO SET UP AND HARDEN FOR A WEEK OR TEN DAYS, AFTER WHICH THEY WERE GIVEN A SINGLE OR A DOUBLE SURFACE-TREATMENT AS INDICATED IN THE ACCOMPANYING TABLE.

DETAILED RECORDS WILL BE KEPT REGARDING THE MAINTENANCE COSTS AND SERVICE OF THE DIFFERENT SECTIONS SO THAT IN THE NEAR FUTURE THE COMPARATIVE VALUE OF THE VARIOUS TREATMENTS MAY BE DETERMINED.

Faint, illegible text, possibly bleed-through from the reverse side of the page. The text is arranged in several lines and appears to be a list or a series of entries, but the characters are too light and blurry to be transcribed accurately.

PROGRESS OF FEDERAL HIGHWAY LEGISLATION

(NOT FOR RELEASE)

H. R. 107. - INTRODUCED IN THE HOUSE ON DECEMBER 5 BY O. B. BURTNESSE OF NORTH DAKOTA, AND REFERRED TO THE COMMITTEE ON INTERSTATE AND FOREIGN COMMERCE; PROVIDES REGULATIONS FOR THE CONSTRUCTION OF BRIDGES OVER NAVIGABLE WATERS OF THE UNITED STATES, AND FOR OTHER PURPOSES. NO SUCH BRIDGE WHICH IS TO BE PRIVATELY CONSTRUCTED, OWNED, AND OPERATED AS A TOLL BRIDGE UPON THE FEDERAL-AID OR STATE HIGHWAY SYSTEMS OR THEIR IMMEDIATE EXTENSION, SHALL BE BUILT UNTIL THE LOCATION, DESIGN, AND CONTRACT HAS BEEN APPROVED BY THE HIGHWAY DEPARTMENT OF THE STATE IN WHICH IT IS LOCATED; AND WHERE LOCATED BETWEEN TWO STATES, APPROVAL SHALL BE FROM THE HIGHWAY DEPARTMENT OF EACH STATE. IN THE EVENT OF THE FAILURE OR REFUSAL OF THE HIGHWAY DEPARTMENTS OF THE TWO STATES TO APPROVE THE STRUCTURE; THE LOCATION, DESIGN, AND CONTRACT SHALL BE SUBMITTED TO THE SECRETARY OF AGRICULTURE WHOSE DECISION SHALL BE FINAL.

PROVIDES THAT THERE SHALL BE NO DEVIATION FROM THE PLANS UNLESS APPROVED BY THE STATE HIGHWAY DEPARTMENT AND THAT THEY SHALL BE SUBJECT TO INSPECTION AND APPROVAL BOTH DURING CONSTRUCTION AND UPON FINAL COMPLETION.

IF AFTER THE BRIDGE IS ERECTED IT IS FOUND TO UNREASONABLY INTERFERE WITH NAVIGATION, THE ALTERATION MUST BE MADE OR THE OBSTRUCTION REMOVED AT THE EXPENSE OF THE BRIDGE OWNER.

THAT IN THE CASE OF A PRIVATELY-OWNED TOLL BRIDGE, THE TOLLS SHALL BE REASONABLE, AND SHALL NOT EXCEED SUCH RATES AS WILL PROVIDE AN ANNUAL REVENUE SUFFICIENT TO MEET THE ACTUAL NECESSARY OPERATING AND MAINTENANCE COSTS, AND YIELD A RETURN OF NOT TO EXCEED 10 PER CENT ON THE ACTUAL COST OF THE BRIDGE, AS FINALLY DETERMINED BY THE SECRETARY OF AGRICULTURE OR BY THE STATE HIGHWAY DEPARTMENT.

PROVIDES THAT PUBLICLY-CONSTRUCTED BRIDGES, INVOLVING THE ERECTION OF A STRUCTURE THE COST OF WHICH WILL BE IN EXCESS OF THE PUBLIC FUNDS WHICH MAY REASONABLY BE APPLIED THERETO, MAY BE OPERATED AS A TOLL BRIDGE. PROVIDES THAT TOLLS SHALL BE REASONABLE AND SHALL CEASE IN ANY EVENT WITHIN 25 YEARS OR WHEN THE STATE OR POLITICAL SUBDIVISION HAS BEEN REIMBURSED FOR THE CONSTRUCTION, FINANCING, AND MAINTENANCE OF THE STRUCTURE.

PROVIDES THAT WHERE THE STATE OR POLITICAL SUBDIVISION IS NOT ABLE TO FINANCE A BRIDGE THE STRUCTURE MAY BE CONSTRUCTED AND OPERATED AS A PRIVATELY-OWNED TOLL BRIDGE. PROVIDES REGULATIONS FOR THE ACQUISITION OF RIGHT OF WAY, THE RECAPTURE BY PUBLIC PURCHASE, THE ESTABLISHMENT OF REASONABLE TOLLS, THE SUBMISSION OF A SWORN STATEMENT AS TO THE ORIGINAL COST, ETC.

PROVIDES THAT A COMPLETE ACCOUNT SHALL BE MADE OF THE TOLLS COLLECTED IN ACCORDANCE WITH A UNIFORM METHOD PRESCRIBED BY THE STATE HIGHWAY DEPARTMENT.

PROVIDES THAT ANY PERSON WHO SHALL FAIL TO COMPLY WITH ANY LAWFUL ORDER OF THE SECRETARY OF WAR, MADE IN ACCORDANCE WITH THE PROVISIONS OF THIS ACT, SHALL, UPON CONVICTION, BE PUNISHED BY A FINE NOT EXCEEDING \$5,000, AND FOR EVERY ADDITIONAL MONTH IN DEFAULT SHALL BE SUBJECT TO A FINE COLLECTED AT THE RATE OF NOT EXCEEDING \$5,000.

THE ACT CONTINUES WITH OTHER MISCELLANEOUS PROVISIONS, AMONG THEM BEING ONE THAT THE ACT SHALL NOT APPLY TO THE CONSTRUCTION OF ANY BRIDGE BETWEEN THE UNITED STATES AND A FOREIGN COUNTRY.

H. R. 5772. - INTRODUCED IN THE HOUSE ON DECEMBER 5, BY G. E. CAMPBELL OF PENNSYLVANIA, AND REPORTED OUT FAVORABLY BY THE COMMITTEE ON THE JUDICIARY ON JANUARY 18: PROVIDES THAT EVERY FEDERAL AGENCY, BEFORE EXPENDING ANY FUNDS FOR ANY CONSTRUCTION PROJECT, ESTIMATED TO COST MORE THAN \$25,000, AND NOT CONSTITUTING MAINTENANCE OR REPAIR, SHALL PREPARE COMPLETE PLANS AND SPECIFICATIONS FOR SUCH PROJECT, TOGETHER WITH A DETAILED ESTIMATE OF THE ENTIRE COST.

H. R. 5800. - THIS IS THE URGENT DEFICIENCY BILL DESCRIBED IN THE PRECEDING NEWS LETTER. SINCE THE LAST ANNOUNCEMENT, THE BILL HAS PASSED BOTH HOUSES OF CONGRESS AND WAS SIGNED BY THE PRESIDENT ON DECEMBER 22, 1927. (PUBLIC No. 2)

H. R. 8269. - PASSED THE HOUSE ON JANUARY 11, 1928. MAKES APPROPRIATIONS FOR THE DEPARTMENTS OF STATE AND JUSTICE AND FOR THE JUDICIARY, AND FOR THE DEPARTMENTS OF COMMERCE AND LABOR, FOR THE FISCAL YEAR ENDING JUNE 30, 1929, AND FOR OTHER PURPOSES. MAKES AN APPROPRIATION OF \$3,000 TO PAY THE QUOTA OF THE UNITED STATES IN THE PERMANENT ASSOCIATION OF INTERNATIONAL ROAD CONGRESSSES, AS AUTHORIZED BY THE PUBLIC RESOLUTION APPROVED JUNE 18, 1926.

THE UNIVERSITY OF CHICAGO
DEPARTMENT OF CHEMISTRY
CHICAGO, ILLINOIS

REPORT OF THE
COMMISSIONERS OF THE
SCHOOL OF THE ARTS
AND SCIENCES
FOR THE YEAR
1900-1901

THE UNIVERSITY OF CHICAGO
DEPARTMENT OF CHEMISTRY
CHICAGO, ILLINOIS

THE UNIVERSITY OF CHICAGO
DEPARTMENT OF CHEMISTRY
CHICAGO, ILLINOIS

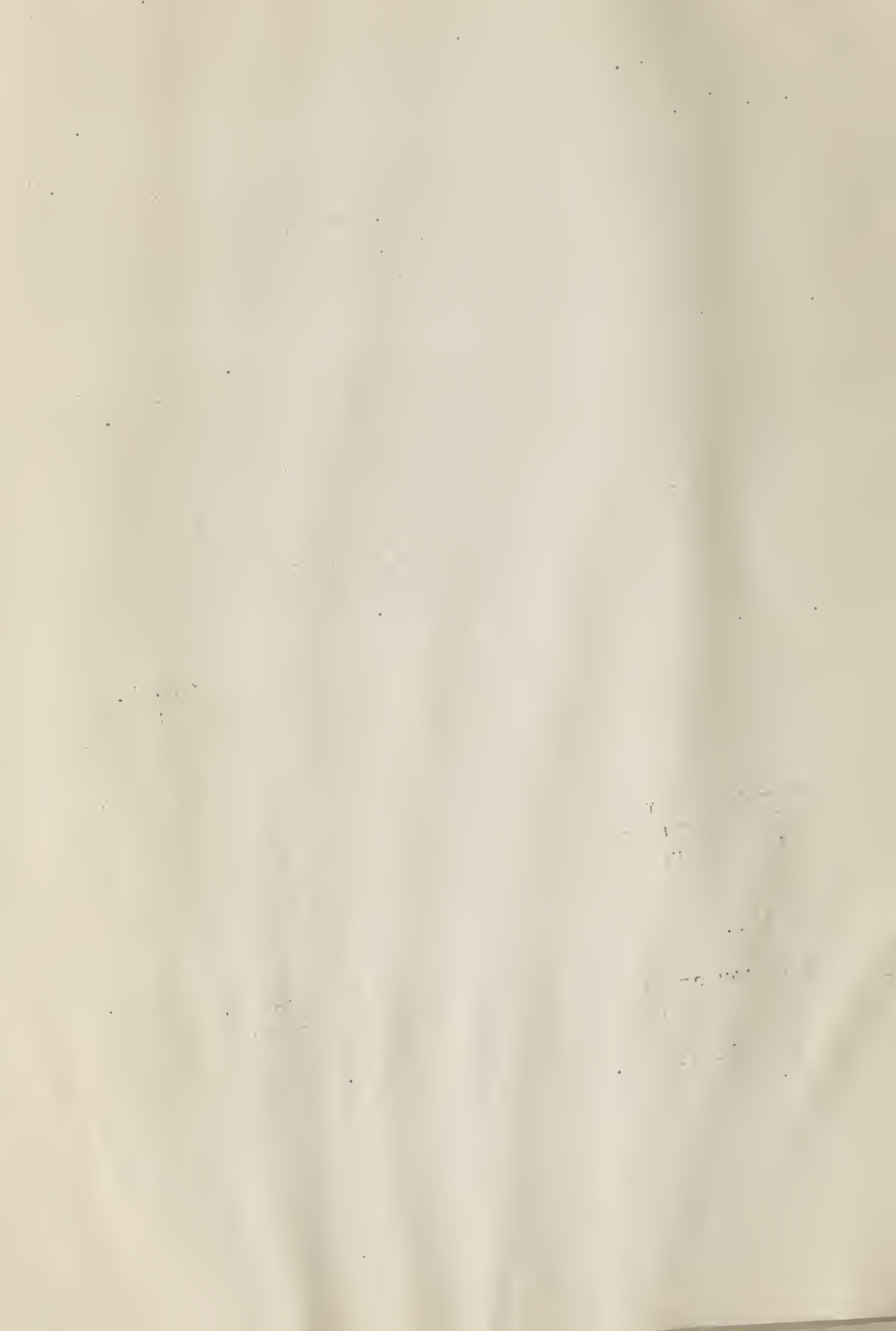
H. R. 8294. - INTRODUCED IN THE HOUSE ON JANUARY 4, BY SCOTT LEAVITT OF MONTANA, AND REFERRED TO THE COMMITTEE ON ROADS. AUTHORIZES AN APPROPRIATION OF \$2,153,000 FOR THE CONSTRUCTION OF A HIGHWAY FROM RED LODGE, MONTANA, TO THE BOUNDARY OF THE YELLOWSTONE NATIONAL PARK NEAR COOKE CITY, MONT. THE BILL PROVIDES THAT THE CONSTRUCTION OF THE HIGHWAY SHALL BE UNDER THE DIRECTION OF THE SECRETARY OF AGRICULTURE.

H. R. 8832. - INTRODUCED IN THE HOUSE ON JANUARY 7, BY R. W. MOORE OF VIRGINIA, AND REFERRED TO THE COMMITTEE ON ROADS: PROVIDES FOR THE AMENDMENT OF EXISTING FEDERAL HIGHWAY LEGISLATION TO AUTHORIZE AN APPROPRIATION OF \$150,000,000 FOR FEDERAL-AID ROADS FOR EACH OF THE FISCAL YEARS 1930, AND 1931; AND AN ADDITIONAL SUM OF \$15,000 (SIC) FOR FOREST ROADS AND TRAILS, UNDER SECTION 23, FOR EACH OF THE FISCAL YEARS 1930, AND 1931.

H. R. 8834. - INTRODUCED IN THE HOUSE ON JANUARY 7, BY W. F. STEVENSON OF SOUTH CAROLINA, AND REFERRED TO THE COMMITTEE ON ROADS: PROVIDES THAT EXISTING FEDERAL-AID HIGHWAY LEGISLATION BE AMENDED BY AUTHORIZING AN APPROPRIATION OF \$50,000,000 FOR EACH OF THE FISCAL YEARS 1929, AND 1930; TO BE EXPENDED IN THE IMPROVEMENT OF RURAL POST ROADS OVER WHICH RURAL CARRIERS TRAVEL IN SERVING THE RURAL ROUTES, OTHER THAN THOSE NOW INCLUDED IN THE FEDERAL-AID ROAD SYSTEM. THE FUNDS ARE PRORATED TO THE STATES UPON THE BASIS OF THE MILEAGE OF RURAL ROUTES, PROVIDED THAT THE STATES APPROPRIATE A LIKE AMOUNT, AND ARE TO BE ADMINISTERED IN THE SAME MANNER AS THE EXISTING FEDERAL-AID ROAD FUNDS.

H. R. 9360. - INTRODUCED IN THE HOUSE ON JANUARY 16 BY H. P. FULMER OF SOUTH CAROLINA AND REFERRED TO THE COMMITTEE ON ROADS: PROVIDES THAT EXISTING FEDERAL-AID HIGHWAY LEGISLATION BE AMENDED BY AUTHORIZING AN APPROPRIATION OF \$50,000,000 FOR EACH OF THE FISCAL YEARS 1929, AND 1930; TO BE EXPENDED IN THE IMPROVEMENT OF RURAL POST ROADS OVER WHICH RURAL CARRIERS TRAVEL IN SERVING THE RURAL ROUTES, OTHER THAN THOSE NOW INCLUDED IN THE FEDERAL-AID ROAD SYSTEM. THE FUNDS ARE PRORATED TO THE STATES UPON THE BASIS OF THE MILEAGE OF RURAL ROUTES, PROVIDED THAT THE STATES APPROPRIATE A LIKE AMOUNT, AND ADMINISTERED IN THE SAME MANNER AS THE EXISTING FEDERAL-AID ROAD FUNDS.

H. J. RES. 421. - INTRODUCED IN THE HOUSE ON JANUARY 4, BY C. C. DOWELL OF IOWA, AND REFERRED TO THE COMMITTEE ON ROADS: AUTHORIZES AN APPROPRIATION OF \$15,000 FOR THE EXPENSES INCIDENT TO THE PARTICIPATION BY THE UNITED STATES IN THE SECOND PAN AMERICAN CONFERENCE ON HIGHWAYS TO BE HELD IN RIO DE JANEIRO. THIS BILL IS IDENTICAL WITH S. J. RES. 30 WHICH WAS REPORTED IN THE PRECEDING NEWS LETTER.



H. J. RES. 136. - INTRODUCED IN THE HOUSE ON JANUARY 6, BY C. C. DOWELL OF IOWA, AND REFERRED TO THE COMMITTEE ON ROADS: PROVIDES FOR THE CREATION OF A PAN AMERICAN HIGHWAY COMMISSION TO BE COMPOSED OF THE SECRETARY OF STATE, THE SECRETARY OF AGRICULTURE, THE SECRETARY OF COMMERCE, AND FOUR CITIZENS OF THE UNITED STATES TO BE APPOINTED BY THE PRESIDENT. THE COMMISSION IS AUTHORIZED TO MAKE A STUDY, WITHIN THE UNITED STATES, OF SUCH PROBLEMS AS IT MAY CONSIDER TO BE RELATED TO POSSIBLE COOPERATION WITH THE REPUBLICS OF THE WESTERN HEMISPHERE SOUTH OF THE RIO GRANDE RIVER IN THE ESTABLISHMENT OF A SYSTEM OF HIGHWAYS BETWEEN THE UNITED STATES AND SUCH REPUBLICS. THE COMMISSION MAY MAKE REPORTS TO CONGRESS FROM TIME TO TIME AND SHALL MAKE A REPORT TO CONGRESS TOGETHER WITH RECOMMENDATIONS ON OR BEFORE THE FIRST MONDAY OF DECEMBER, 1929. IN ADMINISTERING THIS RESOLUTION THE COMMISSION IS AUTHORIZED TO MAKE USE, SO FAR AS IS CONSISTENT WITH THE BEST INTERESTS OF THE PUBLIC SERVICE, OF AGENCIES, OFFICES, AND EMPLOYEES OF THE EXECUTIVE BRANCH OF THE GOVERNMENT. THE COMMISSION MAY APPOINT AND FIX THE SALARY AND EXPENSES OF SUCH EMPLOYEES WITHOUT REGARD TO THE CLASSIFICATION ACT OF 1923 OR THE SUBSISTENCE EXPENSE ACT OF 1926. AN APPROPRIATION OF \$25,000 IS AUTHORIZED TO CARRY OUT THE PROVISIONS OF THE RESOLUTION.

S. 4182. - THIS BILL WAS DESCRIBED IN THE LAST NEWS LETTER. IT WAS AMENDED AND REPORTED OUT OF THE COMMITTEE ON JANUARY 9, 1928, AND PASSED OVER ON THE SENATE CALENDAR ON JANUARY 14.

S. 2327. - INTRODUCED IN THE SENATE ON JANUARY 9, BY L. C. PHIPPS OF COLORADO, AND REFERRED TO THE COMMITTEE ON POST OFFICES AND POST ROADS: AUTHORIZES THE APPROPRIATION OF \$75,000,000 AND \$7,500,000 FOR FEDERAL-AID, AND FOREST ROADS, RESPECTIVELY, FOR EACH OF THE FISCAL YEARS 1930, AND 1931. THIS BILL IS IDENTICAL WITH H. R. 383 WHICH WAS REPORTED IN THE PRECEDING NEWS LETTER.

S. 2427. - INTRODUCED IN THE SENATE ON JANUARY 9, BY C. C. DILL OF WASHINGTON, AND REFERRED TO THE COMMITTEE ON THE JUDICIARY. PROPOSES TO ENACT SUPPLEMENTAL SECTION 8853-1 TO SECTION 8853 OF THE GENERAL CODE RELATIVE TO PUBLIC RAILROAD CROSSINGS OF HIGHWAYS, AND TO PROVIDE THAT DRIVERS OR OCCUPANTS OF VEHICLES AT SUCH CROSSINGS GUILTY OF CONTRIBUTORY NEGLIGENCE SHALL NOT BE BARRED A RECOVERY.

S. 2475. - INTRODUCED IN THE SENATE ON JANUARY 11, BY W. L. JONES OF WASHINGTON, AND REFERRED TO THE COMMITTEE ON COMMERCE: PROPOSES TO CREATE A PROSPERITY RESERVE AND STABILIZE INDUSTRY AND EMPLOYMENT BY THE EXPANSION OF PUBLIC WORKS DURING PERIODS OF UNEMPLOYMENT

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AND INDUSTRIAL DEPRESSION. IN ADDITION TO THE AMOUNTS NORMALLY AND USUALLY APPROPRIATED, IT AUTHORIZES AN APPROPRIATION OF \$75,000,000 FOR FEDERAL-AID ROADS. NO APPROPRIATION IS TO BE MADE IN PURSUANCE TO THIS ACT UNTIL THE PRESIDENT COMMUNICATES TO CONGRESS THAT THE VOLUME, BASED UPON VALUE, OF CONTRACTS AWARDED FOR CONSTRUCTION WORK IN THE UNITED STATES, HAS FALLEN 20 PER CENT FOR A THREE-MONTH PERIOD BELOW THE AVERAGE OF THE CORRESPONDING THREE-MONTH PERIODS OF 1926 AND 1927.

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PURCELL TO BECOME CALIFORNIA STATE HIGHWAY ENGINEER

(NOT FOR RELEASE)

EFFECTIVE MARCH 1 NEXT, CHARLES H. PURCELL, FOR NEARLY 10 YEARS IN CHARGE OF DISTRICT 1 OF THE BUREAU, WITH HEADQUARTERS AT PORTLAND, ORE., WILL RESIGN HIS POSITION TO BECOME STATE HIGHWAY ENGINEER OF CALIFORNIA; SUCCEEDING R. M. MORTON IN THAT CAPACITY. DURING HIS TENURE OF OFFICE AS DISTRICT ENGINEER, MR. PURCELL HAS DEVELOPED AN ORGANIZATION THAT HAS CARRIED ON PRACTICALLY ONE-HALF THE FOREST ROAD CONSTRUCTION OF THE BUREAU, IN ADDITION TO THE FEDERAL-AID ROAD WORK IN OREGON AND WASHINGTON, AND RECENTLY THERE HAS BEEN ADDED TO HIS RESPONSIBILITY AN EXTENSIVE ROAD PROGRAM IN THE NATIONAL PARKS. THE QUALITY OF THE ROADS BUILT UNDER HIS DIRECTION, AS WELL AS THE CORDIAL RELATIONS HE HAS MAINTAINED WITH THE STATE HIGHWAY OFFICIALS AND OTHERS WITH WHOM THE ACTIVITIES OF THE BUREAU HAVE BROUGHT HIM INTO CONTACT, MARK HIM AS AN ORGANIZER AND EXECUTIVE OF EXTRAORDINARY CAPACITY. MORE THAN THIS HE WILL TAKE WITH HIM THE GOOD WILL OF THE BUREAU AND OF HIS SUBORDINATES, WHO WILL EXPECT, WITH HIS BACKGROUND OF EXPERIENCE, TO SEE HIM DEVELOP A HIGHLY-EFFICIENT ROAD-BUILDING ORGANIZATION IN CALIFORNIA.

MR. PURCELL WAS BORN AT NORTH BEND, NEBR., ON JANUARY 27, 1883 AND WAS GRADUATED, IN 1906, FROM THE STATE UNIVERSITY AT LINCOLN, WITH THE DEGREE OF BACHELOR OF SCIENCE IN CIVIL ENGINEERING. SUBSEQUENTLY HE PERFORMED ONE YEAR'S POST GRADUATE WORK AT STANFORD UNIVERSITY, AT PALO ALTO, CALIF.

FOLLOWING HIS UNDERGRADUATE WORK, FOR A PERIOD OF ONE YEAR, HE WAS ENGAGED AS CHIEF ENGINEER DRAFTSMAN, ON STEEL AND REINFORCED CONCRETE MILL BUILDINGS, AND IN THE DESIGN OF A DOUBLE-TRACK STEEL VIADUCT IN THIS COUNTRY. IN 1907, RESPONDING TO A LUCRATIVE OFFER FROM SOUTH AMERICA, HE BECAME PRINCIPAL ASSISTANT TO THE CHIEF ENGINEER OF THE CERRO DE PASSO MINING COMPANY, OF LIMA, PERU.

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WHILE WITH THIS ORGANIZATION, HE WAS IN CHARGE OF THE DESIGN AND CONSTRUCTION OF STEEL VIADUCTS, CONCRETE ARCHES, AND MILL BUILDINGS. WISHING TO RETURN TO THE STATES, HE SEVERED HIS SOUTHERN CONNECTION IN 1910 AND ENGAGED IN STRUCTURAL WORK, PRELIMINARY DESIGNING OF MILL BUILDINGS, ETC., WITH HEADQUARTERS IN SAN FRANCISCO. IN JUNE 1911, HE WENT TO THE PACIFIC NORTHWEST AND TOOK A POSITION AS DESIGNER AND ESTIMATOR FOR THE COWLITZ BRIDGE COMPANY, OF PORTLAND, ORE. IN AUGUST, 1913, HE WAS APPOINTED BRIDGE ENGINEER FOR THE OREGON STATE HIGHWAY DEPARTMENT. THIS POSITION HE RELINQUISHED, IN 1915, TO BECOME BRIDGE ENGINEER FOR MULTNOMAH COUNTY, ORE., WHERE HE WAS IN RESPONSIBLE CHARGE OF THE DESIGN AND CONSTRUCTION OF A NUMBER OF THE BRIDGES ON THE FAMOUS COLUMBIA RIVER HIGHWAY.

MR. PURCELL ENTERED THE BUREAU ON JANUARY 9, 1918, AS A SENIOR HIGHWAY BRIDGE ENGINEER AND, ON APRIL 1, 1919, WAS PROMOTED TO ASSISTANT DISTRICT ENGINEER UNDER DR. HEWES, WHO WAS THEN IN CHARGE OF THE PORTLAND OFFICE, AND IN AUGUST, 1919, WAS PROMOTED TO DISTRICT ENGINEER IN WHICH CAPACITY HE HAS RENDERED VALUABLE SERVICE CONTINUOUSLY FOR NEARLY 10 YEARS.

