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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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EXTRACTS FROM THE MESSAGE OF PRESIDENT COOLIDGE TO THE
SEVENTIETH CONGRESS

GOOD ROADS

"THE IMPORTANCE AND BENEFIT OF GOOD ROADS IS MORE AND MORE COMING TO BE APPRECIATED. THE NATIONAL GOVERNMENT HAS BEEN MAKING LIBERAL CONTRIBUTIONS TO ENCOURAGE THEIR CONSTRUCTION. THE RESULTS AND BENEFITS HAVE BEEN VERY GRATIFYING. NATIONAL PARTICIPATION, HOWEVER, SHOULD BE CONFINED TO TRUNK-LINE SYSTEMS. THE NATIONAL TAX ON AUTOMOBILES IS NOW NEARLY SUFFICIENT TO MEET THIS OUTLAY. THIS TAX IS VERY SMALL, AND ON LOW-PRICED CARS IS NOT MORE THAN \$2 OR \$3 EACH YEAR.

"WHILE THE ADVANTAGE OF HAVING GOOD ROADS IS VERY LARGE, THE DESIRE FOR IMPROVED HIGHWAYS IS NOT LIMITED TO OUR OWN COUNTRY. IT SHOULD AND DOES INCLUDE ALL THE WESTERN HEMISPHERE. THE PRINCIPAL POINTS IN CANADA ARE ALREADY ACCESSIBLE. WE OUGHT TO LEND OUR ENCOURAGEMENT IN ANY WAY WE CAN FOR MORE GOOD ROADS TO ALL THE PRINCIPAL POINTS IN THIS HEMISPHERE SOUTH OF THE RIO GRANDE. IT HAS BEEN OUR PRACTICE TO SUPPLY THESE COUNTRIES WITH MILITARY AND NAVAL ADVISERS, WHEN THEY HAVE REQUESTED IT, TO ASSIST THEM IN NATIONAL DEFENSE. THE ARTS OF PEACE ARE EVEN MORE IMPORTANT TO THEM AND TO US. AUTHORITY SHOULD BE GIVEN BY LAW TO PROVIDE THEM AT THEIR REQUEST WITH ENGINEERING ADVISERS FOR THE CONSTRUCTION OF ROADS AND BRIDGES. IN SOME OF THESE COUNTRIES ALREADY WONDERFUL PROGRESS IS BEING MADE IN ROAD BUILDING, BUT THE ENGINEERING FEATURES ARE OFTEN VERY EXACTING AND THE FINANCING DIFFICULT. PRIVATE INTERESTS SHOULD LOOK WITH FAVOR ON ALL REASONABLE LOANS SOUGHT BY THESE COUNTRIES TO OPEN SUCH MAIN LINES OF TRAVEL.

"THIS GENERAL SUBJECT HAS BEEN PROMOTED BY THE PAN AMERICAN CONGRESS OF HIGHWAYS, WHICH WILL CONVENE AGAIN AT RIO DE JANEIRO IN JULY, 1928. IT IS DESIRABLE THAT THE CONGRESS SHOULD PROVIDE FOR THE APPOINTMENT OF DELEGATES TO REPRESENT THE GOVERNMENT OF THE UNITED STATES."

* * * * *

WITH REFERENCE TO THE RECENT FLOOD IN THE NEW ENGLAND STATES, THE PRESIDENT STATED: "A CONSIDERABLE SUM OF MONEY WILL BE AVAILABLE THROUGH THE REGULAR CHANNELS IN THE DEPARTMENT OF AGRICULTURE FOR RECONSTRUCTION OF HIGHWAYS. IT MAY BE NECESSARY TO GRANT SPECIAL AID FOR THIS PURPOSE."

* * * * *

IN HIS DISCUSSION OF INLAND NAVIGATION, THE PRESIDENT SAID: "THE POLICY IS WELL ESTABLISHED THAT THE GOVERNMENT SHOULD OPEN PUBLIC HIGHWAYS ON LAND AND ON WATER, BUT FOR USE OF THE PUBLIC IN THEIR PRIVATE CAPACITY."

* * * * *

WITH RESPECT TO HISTORICAL CELEBRATIONS, THE PRESIDENT CONTINUED: "PROVISION IS BEING MADE TO COMMEMORATE THE TWO HUNDREDTH ANNIVERSARY OF THE BIRTH OF GEORGE WASHINGTON. SUGGESTION HAS BEEN MADE FOR THE CONSTRUCTION OF A MEMORIAL ROAD LEADING FROM THE CAPITAL TO MOUNT VERNON, WHICH MAY WELL HAVE THE CONSIDERATION OF THE CONGRESS, * * * * *"

HIGHWAYS IN THE MAKING

A PAPER DELIVERED BY THOS. H. MACDONALD,
CHIEF OF THE BUREAU OF PUBLIC ROADS,
BEFORE THE
SIXTH ANNUAL PAVING CONFERENCE,
HELD AT ATLANTA, GEORGIA,
FROM
NOV. 28 TO DEC. 2, 1927.

- - - - -

THERE ARE MANY PUBLIC ISSUES MERITING ATTENTION AND EQUITABLE ADJUSTMENT. A NUMBER OF THESE HAVE THE CHARACTER OF PUBLIC WORKS. DUE TO UNPRECEDENTED FLOODS, THE DEVASTATION OF BOTH PRIVATE AND PUBLIC PROPERTY, AND THE DESOLATION AND LOSS OF HUMAN LIFE, FLOOD CONTROL AND REHABILITATION IN BOTH THE MISSISSIPPI VALLEY AND THE NORTHEASTERN STATES, PARTICULARLY THE STATES OF VERMONT AND NEW HAMPSHIRE, ARE PROBLEMS OF FIRST IMPORTANCE. WATERWAY DEVELOPMENT SEEKS ADEQUATE ATTENTION. IN THE FIELD OF ECONOMIC ADJUSTMENT THE PROBLEMS OF TAXES AND TAX REDUCTION, OF INCOME FOR PUBLIC PURPOSES, AND OF AGRICULTURAL RELIEF, ALL HAVE A BACKGROUND OF SERIOUS IMPORT TO THE WELFARE AND PROSPERITY OF THE COUNTRY. HERE ARE ONLY A FEW OF THE MAJOR GROUPS OF PROBLEMS WITH WHICH THE FEDERAL AND STATE LEGISLATIVE BODIES, AND THE PUBLIC EXECUTIVES, MUST DEAL WISELY.

FOR THE PAST EIGHT YEARS HIGHWAY BUILDING HAS BEEN THE GREATEST SINGLE PUBLIC ACTIVITY IN THE UNITED STATES. THE EXPENDITURE FROM LOCAL, STATE AND FEDERAL FUNDS HAS TOTALED ANNUALLY ABOUT ONE BILLION DOLLARS. THIS FACT IS GENERALLY UNDERSTOOD, BUT MANY OTHER FACTS HAVING A VERY PERTINENT BEARING UPON THE WHOLE MATTER OF THE HIGHWAY FINANCIAL PROGRAM, ARE NOT SO GENERALLY UNDERSTOOD. SINCE PROVISION HAS BEEN MADE FOR THE CONTINUANCE OF THE FEDERAL-AID PROGRAM FOR THE NEXT FISCAL YEAR ONLY, AND THE MATTER OF THE FUTURE OF THE FEDERAL HIGHWAY PROGRAM COMES AGAIN BEFORE THE CONGRESS THIS WINTER, IT IS TIMELY TO PRESENT A RESUME OF PROGRESS AND SOME OF THE FACTS, BOTH OF THE FINANCES REQUIRED AND OF THE UTILIZATION OF HIGHWAY TRANSPORT, WHICH ARE DETERMINING FACTORS IN FUTURE POLICIES.

THERE IS, AT THE OUTSET, NO CONFLICT BETWEEN THE PUBLIC PROBLEMS HERE MENTIONED AND A CONTINUANCE OF THE GENERAL HIGHWAY PROGRAM, BUT PARTICULARLY THAT PORTION OF THE PROGRAM DIRECTED BY THE STATE HIGHWAY DEPARTMENTS. RATHER, A CLOSE RELATIONSHIP

EXISTS BETWEEN HIGHWAY IMPROVEMENT AND SOME OF THESE IMPORTANT PROBLEMS. IN THE FLOODED AREA OF THE MISSISSIPPI VALLEY AND THE NEW ENGLAND STATES, THE GREATEST PUBLIC LOSS HAS BEEN THE DAMAGE TO HIGHWAYS AND BRIDGES. VERMONT IS ONE OF THE SMALLEST STATES. ITS TOTAL AREA IS 9,124 SQUARE MILES. ONLY SIX STATES HAVE SMALLER AREAS, ONLY FOUR HAVE SMALLER POPULATIONS. YET THE PRELIMINARY ESTIMATE OF THE STANDARD CONSTRUCTION REPLACEMENT COSTS OF ROADS AND BRIDGES DAMAGED AND DESTROYED BY THE RECENT FLOODS, IS ABOUT \$7,500,000. IN PASSING, IT STRENGTHENS OUR CONFIDENCE IN THE ABILITY OF MODERN HIGHWAY CONSTRUCTION TO WITHSTAND THESE UNPRECEDENTED FLOOD CONDITIONS, TO KNOW THERE ARE 218 MILES OF COMPLETED FEDERAL-AID PROJECTS IN VERMONT, BUILT AT A COST OF APPROXIMATELY \$3,000,000. THE CONTRIBUTION FROM FEDERAL FUNDS WAS ABOUT \$2,900,000. THE PRELIMINARY ESTIMATE OF LOSS ON THESE PROJECTS IS, FIVE BRIDGES, FOR WHICH THE TOTAL FEDERAL-AID CONTRIBUTION WAS \$85,000, AND DAMAGE TO ROADS OF ABOUT \$35,000 FROM FEDERAL FUNDS - TOGETHER, ABOUT \$150,000 OUT OF A TOTAL EXPENDITURE OF \$2,900,000, OR A LOSS AGAINST FEDERAL FUNDS OF APPROXIMATELY 5 PER CENT.

ROADS AND BRIDGES BUILT TO STATE AND FEDERAL STANDARDS IN THE MISSISSIPPI VALLEY WITHSTOOD THE CONTINUOUS FLOODS AND FLOODING REMARKABLY WELL. BUT THESE FACTS ONLY ACCENT THE DIRECT RELATIONSHIP BETWEEN REHABILITATION AND THE BUILDING TO ADEQUATE STANDARDS OF A SUFFICIENT MILEAGE OF HIGHWAYS TO SERVE THE AREA IN THOSE REGIONS WHERE FLOOD CONTROL IS ESSENTIAL. HIGHWAY IMPROVEMENT IN THE DEVASTATED AREAS IS A MAJOR PROBLEM OF REHABILITATION.

PERHAPS THE OUTSTANDING REACTION TO BE OBTAINED FROM A REVIEW OF THE SITUATION IN THESE SORELY AFFLICTED PORTIONS OF THE COUNTRY, OR A CONSIDERATION OF ANY OF THESE OTHER NATIONAL QUESTIONS, IS THE INEVITABLENESS OF THE WORKING OF THE PRINCIPLE OF COMMUNITY INTEREST. THE MORE SECURELY ARE THE COMPONENT PARTS OF THE NATION KNIT TOGETHER, THE MORE ACUTELY IS THE COMMUNITY OF INTERESTS FELT IN ITS EVERY PART. IT IS BECAUSE OF THE CUMULATIVE STRENGTH AND CONTINUING SUPPORT OF COMMUNITY EFFORT THAT LARGE UNDERTAKINGS ARE POSSIBLE. THE ANTITHESIS COULD BE EASILY ILLUSTRATED BY KNOWN PROJECTS OF LARGE DIMENSIONS IN OTHER COUNTRIES WHICH WERE STARTED IN A BIG

WAY BUT WHICH HAVE FAILED FOR WANT OF NATIONAL UNITY. THERE NEED BE NO FEAR OF UNDERTAKING LARGE ENTERPRISES AS COMMUNITY ENTERPRISES PROVIDED ONLY THEY ARE CAREFULLY SCHEDULED AS TO TIMELINESS. THIS SEEMS TO BE THE IMPORTANT CONSIDERATION, AND WHEN THE ANSWER IS IN THE AFFIRMATIVE THERE NEED BE NO FEAR BUT THAT THE NATIONAL SUPPORT WILL FOLLOW AND THE RESULTS WILL ADD SO TREMENDOUSLY TO THE NATIONAL WEALTH THAT THE COST WILL BE EASILY ABSORBED.

THE PROGRESS OF THIS NATION IN BUILDING HIGHWAYS HAS HAD NO PARALLEL IN ALL PAST HISTORY. BUT WE HAVE BEEN ENGAGED IN A BIG WAY LESS THAN A DECADE. THERE ARE MANY TODAY WHO WERE ENGAGED IN THE HIGHWAY FIELD PRIOR TO THE ADVENT OF THE AUTOMOBILE. TWENTY YEARS AGO IMPROVED RURAL HIGHWAYS SEEMED VERY IMPORTANT. THE YEARLY PROGRESS TOWARD BETTER ROADS THEN SEEMED SLOW AND INADEQUATE. IT IS UNDOUBTEDLY TRUE THAT LARGER SUMS MIGHT WELL HAVE BEEN EXPENDED AND CERTAINLY, AFTER THE EXPERIENCE OF TWO DECADES, IT WOULD BE POSSIBLE TO UTILIZE THE FUNDS TO BETTER ADVANTAGE. BUT ON THE WHOLE WE WERE THEN BUILDING AND MAKING FAIR PROGRESS IN IMPROVING THE TYPES AND MILEAGES OF ROADS THAT COULD BE UTILIZED. IT WAS A FAVORED ARGUMENT FOR GOOD ROADS THAT IN EARLIER TIMES OTHER NATIONS HAD BUILT EXTENSIVE SYSTEMS OF IMPROVED ROADS. PROBABLY MORE FREQUENT REFERENCE HAS BEEN MADE IN HIGHWAY LITERATURE TO THE EARLY ROMAN ROADS THAN TO ANY OTHER SINGLE TOPIC. AS A MATTER OF FACT, THE SYSTEM OF ROMAN ROADS HAD PRACTICALLY NO BEARING UPON THE SITUATION HERE AFTER THE STAGE COACH DISAPPEARED. THE ROMAN ROADS WERE BUILT FOR SERVING THE INTERNAL TRANSPORTATION NEEDS OF THE ROMAN EMPIRE AND CORRESPONDED TO OUR RAILROADS; WITH THE RAILROADS, SUPPLEMENTED BY THE AVAILABLE WATERWAYS, THERE WAS NO DETERMINING REASON FOR THE NATION TO THROW ITS SUPPORT BEHIND THE BUILDING OF A GREAT NATIONAL SYSTEM OF HIGHWAYS. THE BUILDING OF HIGHWAYS AS A GREAT NATIONAL PROBLEM WAS NOT YET TIMELY.

THROUGHOUT HISTORY HIGHWAY TRANSPORTATION OVER ANY KIND OF ROADS WAS SLOW AND INADEQUATE, BASED ON MODERN STANDARDS, BECAUSE OF ITS DEPENDENCE UPON MUSCULAR POWER. OUR KNOWLEDGE OF HISTORY GOES BACK PERHAPS 4,000 YEARS B.C. THERE ARE EVIDENCES OF CENTURIES UPON CENTURIES BEFORE. ADD TO THIS 1927 YEARS MORE AND OUR RANGE OF MORE OR LESS CERTAIN KNOWLEDGE COVERS 6,000 YEARS.

IN ALL OF THIS TIME, EXCEPT FOR LESS THAN 20 YEARS, THE SERVICEABILITY OF HIGHWAYS WAS DEPENDENT UPON MUSCULAR POWER AND THE DAILY RANGE IN MILEAGE THIS KIND OF POWER GAVE THE INDIVIDUAL. THE CHANGE HAS BEEN TOO ABRUPT FOR US TO COMPREHEND FULLY THE DIFFERENCE IN THE UTILIZATION OF HIGHWAYS BEFORE THE COMING OF THE MECHANICAL POWER, AND AFTER. THE MOTOR VEHICLE IS NOW RESPONSIBLE FOR THE VALUE OF HIGHWAYS TO THE NATION BECAUSE OF THEIR INCREASED POTENTIAL AND ACTUAL UTILITY, AND THE OPERATION OF THE MOTOR VEHICLE IS DEPENDENT IN TURN UPON IMPROVED HIGHWAYS. THE CUMULATIVE LOSS TO THE NATION NOW OF INADEQUATE HIGHWAYS IS PROHIBITIVE. IN THE ADVANCE OF CIVILIZATION THE BUILDING OF IMPROVED HIGHWAYS AS A NATIONAL NECESSITY HAS BECOME TIMELY.

THIS DISCUSSION MAY SEEM TO HAVE SOME OF THE EAR MARKS OF SOME OF THE ORATORICAL EFFORTS IN SUPPORT OF COUNTY BOND ISSUES OF TWENTY YEARS AGO. RATHER IT IS A STATEMENT OF A MUCH MORE SERIOUS PROBLEM. IN UNDERSTANDING LIES COMMUNITY STRENGTH, SO IT IS IMPORTANT THAT THE PEOPLE OF THE UNITED STATES, AND PARTICULARLY THOSE DIRECTLY INTERESTED IN THE HIGHWAY FIELD, SHALL UNDERSTAND THE ACTUAL AND RELATIVE DIMENSIONS OF THE WHOLE PUBLIC HIGHWAY UNDERTAKING. AT THE END OF THIS YEAR WE ESTIMATE THERE WILL BE IN SERVICE ON THE HIGHWAYS ABOUT 23,300,000 MOTOR VEHICLES, AN INCREASE OF ABOUT 6 PER CENT OVER LAST YEAR. THERE WILL HAVE BEEN CONSUMED DURING THE YEAR, ACCORDING TO OUR PRESENT ESTIMATES, 10,720,000,000 GALLONS OF GASOLINE, AN INCREASE OF 9 PER CENT OVER LAST YEAR. IF THERE WAS AN AVERAGE OPERATION OF 12 MILES PER GALLON, THE COMBINED RURAL HIGHWAY AND CITY STREET COSTS FOR THE YEAR WERE ABOUT ONE CENT PER VEHICLE-MILE. AT A RETAIL PRICE OF TWENTY CENTS PER GALLON, THE VALUE OF THE FUEL CONSUMED IS \$2,144,000,000, WHICH IS MORE THAN ONE-THIRD OF THE GROSS OPERATING REVENUE, FOR THE FISCAL YEAR ENDED LAST JUNE, OF ALL THE FIRST-CLASS RAILROADS OF THE UNITED STATES, CONSTITUTING 95 PER CENT OF THE TOTAL RAILROAD MILEAGE. ALSO IT IS DOUBLE THE INCOME FOR ALL RURAL HIGHWAY PURPOSES. THE USE OF GASOLINE BY THE INDIVIDUAL MOTOR CAR IS ESTIMATED NOW AT 430 GALLONS FOR THE YEAR, AN INCREASE OF 3.6 PER CENT OVER LAST YEAR. IT APPEARS, THEREFORE, THAT IN ADDITION TO A 6 PER CENT INCREASE IN THE NUMBER OF VEHICLES IN USE, THE USE OF THE VEHICLES THEMSELVES IS INCREASING.

THE INDICATED TOTAL UTILIZATION OF OUR RURAL HIGHWAYS AND OUR CITY STREETS APPROXIMATES FOR THIS YEAR 128 BILLION VEHICLE MILES, A TOTAL SO FAR BEYOND OUR COMPREHENSION THAT IT FAILS TO ASSIST US GREATLY IN VISUALIZING THE PHYSICAL

DIMENSIONS OF THE HIGHWAY CONSTRUCTION AND MAINTENANCE NECESSITIES. BUT IT IS DESIRABLE TO DIRECT OUR THINKING ALONG CONCRETE LINES THAT OUR EFFORTS MAY BE EXERTED UPON COMMON OBJECTIVES.

THE DIMENSIONS AND ORGANIZATION OF
NATIONAL HIGHWAYS.
(ALL FIGURES AS OF JAN. 1, 1926)

AT THE RISK OF BEING ELEMENTARY, THE PHYSICAL HIGHWAY PROBLEM IS HERE STATED. IT SHOULD BE NOTED THAT THE STATISTICS USED HAVE BEEN GATHERED WITH PAINSTAKING CARE OVER MANY YEARS BY THE BUREAU OF PUBLIC ROADS AND THE ATTENTION GIVEN TO THEIR COLLECTION AND CONSOLIDATION HAS BEEN CONSTANTLY INCREASED. ORIGINAL SOURCES ARE USED INSOFAR AS POSSIBLE AND, IN GENERAL, THE STATISTICS FOR THE STATE ACTIVITIES ARE SUFFICIENTLY ACCURATE AND ARE SUPPORTED BY STATE RECORDS. THE STATISTICS FOR THE LOCAL ACTIVITIES ARE LESS ACCURATE AND MUCH LESS FULLY SUPPORTED BY RECORDS OF AN ADEQUATE CHARACTER. ON THE WHOLE, HOWEVER, WE MAY OBTAIN A SUFFICIENTLY ACCURATE NATIONAL HIGHWAY PICTURE.

THERE ARE IN THE UNITED STATES 3,006,081 MILES OF PUBLIC HIGHWAYS. THESE ARE DIVIDED INTO TWO GENERAL CLASSES:

- (A) THOSE UNDER THE JURISDICTION OF THE STATE HIGHWAY DEPARTMENTS, OR STATE HIGHWAYS, AND
- (B) LOCAL HIGHWAYS UNDER THE JURISDICTION OF COUNTY OR TOWNSHIP AUTHORITIES. IN SOME CASES THIS CLASS IS DIVIDED INTO COUNTY AND TOWNSHIP ROADS. IN THE NEW ENGLAND STATES IT IS COMPOSED OF TOWN ROADS.

IN A FEW STATES THERE IS SOME GENERAL SUPERVISION EXTENDED BY THE STATE HIGHWAY DEPARTMENTS OVER LOCAL ROADS AND, IN A FEW, STATE FINANCIAL AID IS EXTENDED TO LOCAL ROADS IN A LIMITED WAY. IN SOME STATES THE LOCAL ORGANIZATIONS HAVE PRIMARY JURISDICTION OVER THE SO-CALLED STATE ROADS UNDER THE SUPERVISION OF THE STATE HIGHWAY DEPARTMENTS. WITH THESE GENERAL QUALIFICATIONS THE PRESENT STATISTICAL DATA IS AS FOLLOWS:

TOTAL MILEAGE OF PUBLIC ROADS IN U. S.	3,006,081
PER CENT OF TOTAL MILEAGE SURFACED	17.4
MILEAGE OF STATE HIGHWAYS	274,910
MILEAGE OF STATE HIGHWAYS SURFACED	144,854
PER CENT OF STATE HIGHWAYS SURFACED	52.5

MILEAGE OF STATE HIGHWAYS, BY TYPES

TRANSITORY

<u>TYPE</u>	<u>MILEAGE</u>	<u>PER CENT</u>
UNIMPROVED	103,271	37.5
GRADED AND DRAINED	26,786	9.7
SAND-CLAY AND TOPSOIL	11,023	4.0
GRAVEL	68,771	25.0
WATERBOUND MACADAM (TREATED AND UNTREATED)	13,709	5.1
TOTAL TRANSITORY	<u>226,563</u>	<u>82.3</u>

DURABLE

BITUMINOUS MACADAM	12,105	4.4
SHEET ASPHALT	853	0.3
BITUMINOUS CONCRETE	4,560	1.7
PORTLAND CEMENT CONCRETE	27,644	10.1
BRICK AND OTHER BLOCK PAVEMENTS	3,185	1.2
TOTAL DURABLE	<u>48,347</u>	<u>17.7</u>
GRAND TOTAL	274,910	100.0

MILEAGE OF LOCAL ROADS	2,731,171
MILEAGE OF LOCAL ROADS SURFACED	373,406
PER CENT OF LOCAL ROADS SURFACED	13.8

MILEAGE OF LOCAL ROADS, BY TYPES

TRANSITORY

<u>TYPE</u>	<u>MILEAGE</u>	<u>PER CENT</u>
UNIMPROVED	2,111,326	77.3
GRADED AND DRAINED	243,440	8.9
SAND-CLAY AND TOPSOIL	58,210	2.1
GRAVEL	222,512	8.1
WATERBOUND MACADAM	51,448	1.9
GRAVEL AND WATERBOUND MACADAM, TREATED	15,680	0.6
TOTAL TRANSITORY	2,702,616	98.9

DURABLE

BITUMINOUS MACADAM	10,490	0.4
SHEET ASPHALT	1,921	0.1
BITUMINOUS CONCRETE	3,420	0.1
PORTLAND CEMENT CONCRETE	10,106	0.4
BRICK AND OTHER BLOCK PAVEMENTS	2,318	0.1
TOTAL DURABLE	28,555	1.1
GRAND TOTAL	2,731,171	100.0

THE FEDERAL HIGHWAY SYSTEM CONSISTS OF 185,772 MILES RUNNING COINCIDENTLY WITH THE STATE HIGHWAY SYSTEM, AND SINCE THE STATE HIGHWAYS CONSTITUTE THE LARGEST SYSTEM, FOR THE PURPOSE OF THIS DISCUSSION THE TWO ARE NOT SEPARATED. HIGHWAYS, TO BE SUITABLE FOR CONTINUOUS USE OF MOTOR VEHICLES, MUST BE SURFACED. IT WILL BE NOTED THAT 47.2 PER CENT OF THE STATE HIGHWAYS HAVE YET TO RECEIVE INITIAL SURFACING, AND THAT WITH ALL THE WORK THAT HAS BEEN DONE, 82.3 PER CENT ARE STILL UNSURFACED OR SURFACED WITH TYPES THAT MUST BE CONSIDERED TRANSITORY OR IN THE PROCESS OF STAGE IMPROVEMENT. THIS INDICATES IN A FAIRLY ADEQUATE MANNER THE DIMENSIONS OF THE JOB AHEAD IN THE IMPROVEMENT OF THE STATE HIGHWAYS, WITHOUT CONSIDERING THE AMOUNT OF WIDENING AND SUPPLEMENTARY CONSTRUCTION THAT WILL BE NECESSARY ON NOT LESS THAN 50 PER CENT OF THE MILEAGE OF THE MORE DURABLE TYPES.

IN THE LOCAL CLASSIFICATION, ATTENTION IS AT ONCE RIVETED UPON THE LARGE FIGURE OF UNIMPROVED, OR ONLY PARTIALLY IMPROVED EARTH ROADS. THIS TREMENDOUS MILEAGE OF 2 MILLION MILES IS COMPOSED LARGELY OF ROADS FOUND ALONG THE SECTION LINES PRINCIPALLY IN THE AGRICULTURAL STATES ESTABLISHED BY LAW WHEN THE LAND WAS ORIGINALLY DIVIDED INTO GEOMETRIC PARCELS. THERE IS NO QUESTION NOW BUT THAT A VERY LARGE PART OF THIS MILEAGE COULD BE TURNED BACK INTO FARM LANDS WITH CORRESPONDING PUBLIC AND PRIVATE BENEFITS. THIS IS NOT RASHLY, OR WITHOUT DUE CONSIDERATION ADVOCATED. THE EXACT FIGURES CANNOT BE GIVEN WITHOUT MORE DETAILED STUDIES OF EACH SITUATION, BUT AS A GENERAL STATEMENT IT MAY BE SAID THAT ALL THE LAND TAXES AND ALL THE GAS AND MOTOR VEHICLE TAXES ORIGINATING FROM THE LANDS ALONG THE GREATER PERCENTAGE OF THIS CLASS OF ROAD WOULD NOT BE SUFFICIENT TO MAINTAIN THEM, TO SAY NOTHING OF BUILDING THEM TO AN ADEQUATE STANDARD. FURTHER, THE TRAFFIC OVER THE ROADS DOES NOT JUSTIFY THEIR EXISTENCE AS PUBLIC HIGHWAYS, AND THERE IS THAT MUCH LOSS OF AGRICULTURAL LANDS.

SURFACING HAS BEEN APPLIED TO 376,405 MILES. OF THIS 92.3 PER CENT IS OF THE LOWER TYPES WHICH MAY OR MAY NOT FOR THESE ROADS BE TRANSITORY. IN THIS CLASS LIE MANY MILES OF ROADS WITHIN METROPOLITAN DISTRICTS WHICH WILL HAVE TO BE IMPROVED TO A HIGH TYPE.

THERE CAN BE NO INTELLIGENT DISCUSSION OF THE ULTIMATELY NECESSARY LOCAL MILEAGE UNTIL THERE IS EXCLUDED A VERY LARGE MILEAGE OF LEGALLY DESIGNATED PUBLIC ROADS WHICH ARE NOT ACTUALLY NEEDED AS HIGHWAYS, AND WHICH CAN NOT POSSIBLY BE IMPROVED IN ANY FORESEEN TIME WITH THE FUNDS NOW AVAILABLE. IT MUST BE EVIDENT FROM THIS DISCUSSION THAT TWO GENERAL POLICIES ARE SORELY NEEDED IN THE MANAGEMENT OF LOCAL ROADS:

FIRST. PLANNING COMMISSIONS FOR METROPOLITAN AREAS TO LAY OUT A SYSTEM OF ROADS FOR THE AREA AS A WHOLE, ALTHOUGH THERE WILL BE FOUND IN SUCH AREAS AN ASTONISHING NUMBER OF CIVIL JURISDICTIONS. THE COOK COUNTY, ILLINOIS, AND CUYAHOGA COUNTY, OHIO, TRANSPORT SURVEYS AMPLY SUSTAIN THIS FACT.

SECOND. RURAL PLANNING COMMISSIONS ARE NEEDED TO WORK IN CONJUNCTION WITH THE STATE HIGHWAY DEPARTMENTS IN THE PLANNING OF COUNTY AND FEEDER ROADS FOR THE PURPOSE OF PLANNING A SYSTEM OF PUBLIC HIGHWAYS THAT WILL REACH AND SERVE THE AGRICULTURAL POPULATION WITH A MINIMUM POSSIBLE MILEAGE,

THAT THIS LATTER STATEMENT MAY BE GUARDED AGAINST MISUNDERSTANDING OR AGAINST MIS-QUOTATION, IT IS REPEATED. IT IS POSSIBLE BY PROPER PLANNING OF RURAL COMMUNITY AND LOCAL HIGHWAY SYSTEMS TO REDUCE MATERIALLY THE MILEAGE AND CONSEQUENT ACREAGE OF LAND NOW DEDICATED TO PUBLIC HIGHWAYS AND YET GIVE MORE ADEQUATE SERVICE TO THE RURAL SECTIONS THAN IS NOW ENJOYED. BUT SUCH A DESIRABLE CONDITION CANNOT BE ESTABLISHED EXCEPT BY INTELLIGENT AND PAINSTAKING PLANNING.

THE SURFACING OF THE STATE SYSTEM IS PROCEEDING AT THE RATE OF APPROXIMATELY 20,000 MILES PER ANNUM, AND THE SURFACING OF THE LOCAL ROADS IS PROCEEDING AT THE RATE OF ABOUT 25,000 MILES PER ANNUM, BUT THE PERCENTAGES OF THE TYPES ARE NOT CHANGING MATERIALLY.

THE ANNUAL COST OF THE HIGHWAY PROGRAM FOR 1926, BASED ON THE 1923 RETURNS FROM THE STATE HIGHWAY SYSTEMS AND THE 1925 RETURNS FROM THE LOCAL HIGHWAY SYSTEMS, WAS \$1,231,558,813, DIVIDED AS FOLLOWS:

EXPENDITURES FOR STATE HIGHWAYS	\$621,744,210.
EXPENDITURES FOR LOCAL ROADS	\$639,814,603.

FOR PURPOSES OF THIS DISCUSSION, HOWEVER, IT IS NOT DESIRABLE TO GO INTO DETAILS OF FINANCING SINCE, IF AN ORDERLY PLAN IS ADOPTED, THE INDICATED FINANCIAL PROGRAM WILL BE THE RIGHT ONE.

THE FOLLOWING IS QUOTED FROM AN EARLIER ARTICLE UPON THE GENERAL PLAN OF A BUDGET:

"IT HAS BECOME MORE AND MORE APPARENT, PARTICULARLY AS THE DISCUSSION OF ANNUAL BUDGETS HAS BECOME COMMON, THERE ARE TWO KINDS OF BUDGETING; THE BUDGET THAT IS PREPARED WITH REFERENCE TO THE EXPECTED INCOME, AND THE BUDGET THAT IS PREPARED WITH REFERENCE TO THE PHYSICAL CONDITION AND NECESSITIES OF THE HIGHWAYS. THEY MIGHT BE TERMED THE FISCAL BUDGET AND THE PHYSICAL BUDGET. THE FIRST TYPE OF BUDGET IS OPEN TO A GREAT DEAL OF MISMANAGEMENT NO MATTER HOW CORRECT THE FISCAL INFORMATION. THE SECOND TYPE OF BUDGET IS THE ONLY PLAN THAT EVENTUALLY WILL WORK FOR ECONOMY."

APPLYING THIS SYSTEM OF BUDGETING THE PHYSICAL NEEDS OF THE HIGHWAYS, IN VIEW OF THE PHYSICAL CONDITION SET FORTH ABOVE, THERE ARE CERTAIN LOGICAL CONCLUSIONS OF PARTICULAR INTEREST TO THE ASPHALT INDUSTRY WHICH MAY BE SUMMARIZED AS FOLLOWS:

(1) BASED ON AN ANNUAL UTILIZATION OF THE HIGHWAYS OF 128 BILLION VEHICLE MILES, THE ANNUAL PASSENGER MILEAGE IS APPROXIMATELY 2,380,000,000 MILES. THIS IS NOT LESS THAN 8 TIMES THE PASSENGER MILEAGE OF THE STEAM RAILROADS IN 1925 AND IS INDICATIVE OF THE PREDOMINANT USE OF THE HIGHWAYS BY PEOPLE. THE ANNUAL LOSS OF SURFACING FROM THE LOW-TYPE ROADS, PLUS THE DUST NUISANCE, MEANS THAT MORE EFFECTIVE METHODS MUST BE FOUND AND MORE LARGELY UTILIZED, BOTH FOR HOLDING THESE SURFACES AND FOR DUST SUPPRESSION. THIS IS A FIELD FOR BITUMINOUS CONSTRUCTION.

(2) THERE IS SUCH A TREMENDOUS MILEAGE OF ROADS INITIALLY IMPROVED, ON WHICH THE SURFACE IS NOT NOW ADEQUATE, THAT A LOW TYPE OF SUPPLEMENTAL CONSTRUCTION MUST BE DEVELOPED WHICH CAN BE ADEQUATELY MAINTAINED. AS INDICATIVE OF THE POSSIBILITIES IN THIS FIELD, WE HAVE A DEMONSTRATION OF THE FINE-CRUSHED-ROCK SURFACES IN THE WEST. THE PROCESSING WITH BITUMINOUS TREATMENTS GIVES PROMISE OF HIGH-CLASS SERVICE UNDER MODERATE TRAFFIC AT A REASONABLE ANNUAL MAINTENANCE COST. FURTHERMORE, A TYPE OF MAINTENANCE IS POSSIBLE THAT RENEWS THE ORIGINAL SMOOTH-RIDING QUALITIES OF THE ROAD. IT HAS ALREADY BEEN DEMONSTRATED THAT THESE SURFACES CAN BE SCARIFIED AND A SMALL AMOUNT OF ADDITIONAL MATERIAL ADDED, THAT THE WORK CAN BE DONE ON A QUANTITY BASIS, AND, WHICH IS ALL IMPORTANT, AT A LOW COST. THERE MAY BE DIFFICULTIES WITH THIS TYPE OF CONSTRUCTION, BUT IT GIVES SUCH PROMISE THAT THE ASPHALT INDUSTRY, BOTH ENGINEERS AND CONTRACTORS, CAN WELL AFFORD TO DEVOTE THOUGHT AND EFFORT TO ITS PERFECTION.

(3) THERE ARE LONG MILEAGES OF ROADS ON BOTH THE STATE HIGHWAY AND LOCAL HIGHWAY SYSTEMS, PARTICULARLY IN THE REGIONS WEST OF THE MISSISSIPPI RIVER, ON WHICH THE ONLY HOPE NOW APPARENT OF FIRST CLASS HIGHWAY SERVICE LIES IN THE DEVELOPMENT OF BITUMINOUS CONSTRUCTION. WITHOUT CRITICIZING THE EFFORTS THAT ARE BEING MADE TOWARD THE PERFECTION IN DETAIL OF THE STANDARD ASPHALTIC MIXTURES FOR PAVEMENT CONSTRUCTION, THE ATTENTION OF THE INDUSTRY IS DIRECTED TOWARD THE DESIRABILITY AND NECESSITY OF DEVELOPING TYPES OF CONSTRUCTION THAT CAN BE LAID MORE CHEAPLY THAN THE STANDARD TYPES AND THAT WILL PROVE ADEQUATE. THIS MAY VERY WELL MEAN MAKING A

LARGER PERCENTAGE OF THE PRODUCT AVAILABLE FOR USE IN THE LOWER TYPES OF CONSTRUCTION, AND TO DO THIS NOT ONLY THE PROCESSES BUT THE EQUIPMENT, AND EVEN THE MATERIAL ITSELF, MUST BE ADAPTED TO THIS PURPOSE.

(4) AGAIN, WITHOUT THOUGHT OF OVERLOOKING THE DESIRABILITY OF THE MORE DURABLE TYPES OF CONSTRUCTION WHICH HAVE LONG BEEN ESTABLISHED AS STANDARD, THE ATTENTION OF THE INDUSTRY IS DIRECTED TOWARD THE OVERWHELMING PHYSICAL PROBLEM CONFRONTING THE COUNTRY, WHICH CANNOT BE MET QUICKLY BY THE RELATIVELY SMALL MILEAGES OF THE HIGH-COST CONSTRUCTION THAT MAY BE BUILT WITH THE PRESENT INCOME FROM YEAR TO YEAR. IT DOES NOT APPEAR IMPOSSIBLE TO DEVELOP PROCESSES, AND THE BITUMINOUS PROCESSES SEEM MOST ADAPTABLE FOR THE PURPOSE, THAT LEND THEMSELVES TO A COMPLETE OVERHAULING AT INTERVALS, AND THROUGH SUCH OVERHAULING LARGELY RESTORE THE ROAD TO ITS ORIGINAL CONDITION WITHOUT IMPOSSIBLE EXPENSE. STUDENTS OF HIGHWAY FINANCE MUST BE IMPRESSED WITH THE FACT THAT IT IS THE ANNUAL COST OF PROVIDING ADEQUATE HIGHWAY SERVICE THAT IS THE IMPORTANT ITEM, AND THE FIELD OF POSSIBILITIES IN BITUMINOUS CONSTRUCTION HAS BEEN ONLY PARTIALLY DEVELOPED.

(5) FINALLY THE PERFORMANCE OF MANY OF THE OLDER BITUMINOUS MACADAM ROADS, PARTICULARLY IN THE NORTHEASTERN STATES, AND ABROAD, PROVIDES CONFIDENCE THAT THIS TYPE OF CONSTRUCTION CAN BE USED UNDER HEAVY TRAFFIC PROVIDED THE DESIGN AND MAINTENANCE ARE ADEQUATE. IN THIS FIELD THERE SEEMS TO LIE THE POSSIBILITY OF MORE CLOSELY CONTROLLED MANUFACTURING PROCESSES, COUPLED WITH CHANGES IN DESIGN, THAT WOULD INSURE MORE UNIFORM AND MORE SATISFACTORY RESULTS.

IN CLOSING, THIS ARTICLE HAS BEEN PREPARED UPON THE GENERAL PREMISE THAT THE PHYSICAL DIMENSIONS OF THE HIGHWAY PROBLEM IN THIS COUNTRY ARE SO ENORMOUS THAT WE MUST, THROUGH THE DEVELOPMENT OF NEW PROCESSES AND NEW METHODS, GIVE ADEQUATE SERVICE OVER GREATER MILEAGES THAN WE ARE DOING NOW. SINCE SUCH A LARGE PERCENTAGE OF THE NECESSARY EXPENDITURES ARE DERIVED FROM THE MOTOR VEHICLE ITSELF, AND SINCE WE HAVE A CONSTANTLY INCREASING USE OF THE MOTOR VEHICLE, IT SEEMS APPARENT THAT THESE COSTS HAVE NOT YET BECOME BURDENSOME. THIS, OF COURSE, IS QUALIFIED BY THE FACT THAT THE COUNTRY HAS EXPERIENCED AN UNPRECEDENTED PERIOD OF PROSPERITY,

EXCEPT IN THE AGRICULTURAL DISTRICTS, AND HERE THE MOTOR VEHICLE HAS BECOME ESSENTIAL TO THE BUSINESS. THAT WE ARE OBTAINING SO MUCH SERVICE FROM EVEN POORLY-BUILT ROADS WHICH HAVE BEEN REHABILITATED WITH BITUMINOUS TREATMENTS, AND THAT PROGRESS HAS BEEN MADE IN THE DEVELOPMENT OF NEW BITUMINOUS TYPES OF GREAT PROMISE, ARE FACTS WHICH INDICATE THAT IN THIS FIELD OF BITUMINOUS CONSTRUCTION LIES THE HOPE OF LARGE MILEAGES OF HIGHWAYS THAT MAY RENDER SATISFACTORY SERVICE WITHIN REASONABLE COSTS. THE NEED IS PRESSING AND THE FIELD IS LARGE. IT IS CERTAINLY ONE IN WHICH THE ASPHALT INDUSTRY MAY RENDER A BIG SERVICE TO THE PUBLIC.

UNITED STATES DEPARTMENT OF AGRICULTURE
BUREAU OF PUBLIC ROADS

S. P. R. - F. A. - 4-1
Revised November 1927-1-1

STATUS OF CURRENT FEDERAL AID ROAD WORK
FOR THE FISCAL YEAR ENDING JUNE 30, 1928

AS OF NOVEMBER 30, 1927.

STATES	BALANCE OF FEDERAL AID FUNDS AVAILABLE FOR PROJECTS		* UNDER CONSTRUCTION			APPROVED FOR CONSTRUCTION			AMOUNT PAID DURING FISCAL YEAR			COMPLETED AND PAID DURING FISCAL YEAR			AGREEMENTS IN FORCE			P. S. & E. REDMANNED FOR APPROVAL OF DISTRICT ENGINEER			STATES
	FEDERAL AID	MILEAGE	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		
ALABAMA	2,079,779.04	3,595,072.54	467.7	1.9	145,141.47	86.9	0.6	61,692.01	1.9	3,469,582.84	469.1	1.9	670,651.17	76.5	17,264.44	0.2	0.8	ALABAMA			
ARIZONA	1,273,751.54	1,881,611.91	233.9	4.4	177,626.26	7.2		192,915.61	14.1	1,088,686.44	67.8	4.4	17,264.44	0.2				ARIZONA			
ARKANSAS	2,853,294.96	3,461,689.96	156.8	0.4	147,766.33	9.5		1,156,574.13	83.0	2,853,294.96	126.9	0.4	701,000.00	40.3				ARKANSAS			
CALIFORNIA	2,449,719.61	3,249,769.50	285.1	12.4	20,057.34	2.9		486,303.64	4.8	3,176,126.80	271.1	12.4	83,700.04	18.9				CALIFORNIA			
COLORADO	315,045.75	1,609,650.87	89.6	2.1	82,320.00	5.5		355,348.84	17.7	1,609,042.57	89.6		82,928.30	5.5				COLORADO			
CONNECTICUT	7,913.18	3,365,371.19	31.2					120,820.22	14.6	3,365,371.19	31.2		89,937.00	4.4				CONNECTICUT			
DELAWARE	104,446.49	5,076,483.78	447.5				537,116.01	170.0	5,076,483.78	447.5		454,003.39	24.3					DELAWARE			
FLORIDA	201,015.38	2,937,945.54	182.3	83.7			1,676,008.83	32.7	2,937,945.54	182.3		1,676,008.83	32.7					FLORIDA			
GEORGIA	107,221.48	1,281,122.05	131.8	42.4	397,473.70	40.8	31.1	676,008.83	69.2	1,281,122.05	131.8	42.4	1,175,743.44	126.6	17.4			GEORGIA			
IDAHO	254,558.31	8,389,213.54	534.0		1,257,728.01	89.7	2.3	1,867,430.91	191.9	8,389,213.54	534.0		2,029,314.85	133.5	0.3			IDAHO			
ILLINOIS	1,655,637.50	7,099,766.97	504.9	22.5	108,923.66	5.8	19.9	1,550,211.01	14.3	7,099,766.97	504.9	22.5	6,524,025.32	487.7	215.9			ILLINOIS			
INDIANA	104,446.49	5,076,483.78	447.5		307,934.37	53.1		1,477,867.46	57.3	5,076,483.78	447.5		613,292.20	73.6	0.3			INDIANA			
IOWA	19,235.40	4,781,976.34	439.2	74.8	663,870.27	29.0	1.5	1,550,211.01	14.3	4,781,976.34	439.2	74.8	974,069.19	66.4	21.8			IOWA			
KANSAS	1,053,891.82	1,850,320.80	147.1	7.5	196,774.91	19.9		242,194.88	40.6	1,850,320.80	147.1	7.5	88,158.91	10.0				KANSAS			
KENTUCKY	9,952.09	1,025,285.64	104.5					99,950.10	40.6	1,025,285.64	104.5		99,950.10	40.6				KENTUCKY			
LOUISIANA	1,748,343.10	1,865,290.01	115.4	12.6	364,117.00	25.4	6.5	1,629,956.22	57.7	1,865,290.01	115.4	12.6	176,635.00	11.9				LOUISIANA			
MARYLAND	112,876.43	1,135,030.00	292.6	22.5	119,359.09	18.5		1,256,586.19	62.0	1,135,030.00	292.6	22.5	431,972.17	52.2	4.8			MARYLAND			
MASSACHUSETTS	575,579.44	3,132,245.45	337.9	22.4	56,445.91	6.7	3.9	1,056,979.61	89.3	3,132,245.45	337.9	22.4	3,639,189.50	259.7	34.7			MASSACHUSETTS			
MISSISSIPPI	647,706.49	3,691,765.26	273.8	34.7	765,162.03	15.1	61.5	1,042,283.64	285,259.38	3,691,765.26	273.8	34.7	626,410.50	1,261.3	683.5			MISSISSIPPI			
MISSOURI	4,080,609.82	2,557,035.08	283.6	8.4	318,530.18	64.0	61.5	1,325,410.90	1,229,026.64	2,557,035.08	283.6	8.4	3,248,964.83	424.7	8.4			MISSOURI			
MONTANA	352,070.88	5,551,588.31	1,312.2	591.1	92,937.17	14.8		346,068.91	52.8	5,551,588.31	1,312.2	591.1	1,648,668.72	196.1	31.0			MONTANA			
NEBRASKA	192,131.53	1,623,139.51	82.3		29,110.00	1.5		593,310.07	35.6	1,623,139.51	82.3		2,211,953.56	82.7				NEBRASKA			
NEVADA	2,96	1,312,753.66	85.4					653,310.07	35.6	1,312,753.66	85.4		2,211,953.56	82.7				NEVADA			
NEW HAMPSHIRE	1,434,300.86	2,417,453.28	219.7		28,713.22	2.3		842,170.64	34.1	2,417,453.28	219.7		2,258,272.22	207.3				NEW HAMPSHIRE			
NEW JERSEY	3,197,717.06	10,752,628.55	665.9		1,136,302.50	73.3	8.6	2,614,807.58	909,807.84	10,752,628.55	665.9		11,834,038.95	739.2				NEW JERSEY			
NEW MEXICO	595,359.97	1,570,015.52	92.0	35.9	18,500.00	0.9		789,000.41	329,783.35	1,570,015.52	92.0	35.9	406,407.20	42.2				NEW MEXICO			
NORTH CAROLINA	2,195,043.07	5,116,214.05	352.4	357.0	221,396.62	111.9	25.8	829,068.31	1,457,867.40	5,116,214.05	352.4	357.0	418,147.20	80.9	58.2			NORTH CAROLINA			
NORTH DAKOTA	20,147.04	1,898,633.12	309.8	13.8	1,356,552.84	184.3	11.3	1,650,374.34	374,082.62	1,898,633.12	309.8	13.8	2,357,007.74	137.2	4.4			NORTH DAKOTA			
OHIO	523,474.31	1,302,136.77	74.1	35.8	12,800.41	3.2		359,026.31	121,684.57	1,302,136.77	74.1	35.8	1,374,937.18	37.3	35.8			OHIO			
OKLAHOMA	1,048,100.30	5,911,319.10	370.3	3.0	597,326.43	39.6		1,790,292.67	600,026.95	5,911,319.10	370.3	3.0	486,278.33	32.2				OKLAHOMA			
OREGON	330,650.53	283,163.74	16.0		223,783.67	13.4		295,397.48	227,625.00	283,163.74	16.0		186,555.00	12.4				OREGON			
PENNSYLVANIA	17,170,752.00	1,650,844.59	753.6	109.5	23,999.84	0.9	5.6	515,348.31	808,011.50	1,650,844.59	753.6	109.5	2,068,406.54	269.8	30.9			PENNSYLVANIA			
RHODE ISLAND	3,046.00	1,650,844.59	753.6	33.7	189,276.07	93.5	38.4	609,639.96	145,687.55	1,650,844.59	753.6	33.7	2,068,406.54	269.8	30.9			RHODE ISLAND			
SOUTH CAROLINA	3,108,981.32	3,536,524.01	245.3	33.7	189,276.07	93.5	38.4	609,639.96	145,687.55	3,536,524.01	245.3	33.7	189,276.07	93.5	38.4			SOUTH CAROLINA			
TENNESSEE	198,375.12	2,060,667.68	160.1	3.4	250,706.84	21.1	11.1	684,163.71	2,876,010.13	2,060,667.68	160.1	3.4	2,333,319.78	150.4	136.9			TENNESSEE			
TEXAS	30,108.04	724,624.03	45.0		8,390.23	0.2		741,631.07	202,124.28	724,624.03	45.0		186,555.00	12.4				TEXAS			
UTAH	771,080.53	3,431,429.28	278.0	12.0	137,653.76	91.0	7.0	1,450,651.52	415,056.32	3,431,429.28	278.0	12.0	1,769,600.00	119.8				UTAH			
VERMONT	1,900,852.32	4,188,920.97	326.3	43.1	823,431.70	50.0		1,823,431.70	1,371,837.81	4,188,920.97	326.3	43.1	3,760,516.42	282.9	35.7			VERMONT			
VIRGINIA	115,641.98	2,028,733.03	269.0	118.9	87,438.84	24.9		625,034.10	149,865.10	2,028,733.03	269.0	118.9	1,41,927.86	28.3				VIRGINIA			
WEST VIRGINIA	805,975.35	491,922.64	25.0					229,143.68	70,440.00	491,922.64	25.0		491,922.64	25.0				WEST VIRGINIA			
WISCONSIN	41,668,221.61	150,820,606.86	13,989.9	2,280.9	13,785,713.96	1,465.9	384.1	39,925,383.59	29,197,766.34	150,820,606.86	13,989.9	2,280.9	141,376,546.36	10,505.6	218.9			WISCONSIN			
WYOMING																		WYOMING			
HAWAII																		HAWAII			
TOTAL	41,668,221.61	150,820,606.86	13,989.9	2,280.9	13,785,713.96	1,465.9	384.1	39,925,383.59	29,197,766.34	150,820,606.86	13,989.9	2,280.9	141,376,546.36	10,505.6	218.9			TOTAL			

* INCLUDES PROJECTS REPORTED COMPLETED (FINAL VOUCHERS NOT YET PAID) TOTALING - FEDERAL AID \$55,625,438.89 MILEAGE - ORIGINAL \$1,020.5

PROGRESS OF FEDERAL HIGHWAY LEGISLATION

(NOT FOR RELEASE)

THE FOLLOWING BILLS PERTAINING TO FEDERAL HIGHWAY LEGISLATION HAVE BEEN INTRODUCED SINCE THE OPENING OF THE FIRST SESSION OF THE SEVENTIETH CONGRESS:

- H. R. 18. - INTRODUCED IN THE HOUSE ON DECEMBER 5, BY E. E. DENISON OF ILLINOIS, AND REFERRED TO THE COMMITTEE ON ROADS: PROVIDES THAT THE EXISTING FEDERAL-AID ROAD LEGISLATION SHALL NOT BE CONSTRUED SO AS TO PROHIBIT THE GRANTING OF FEDERAL-AID FUNDS TO A ROAD OR HIGHWAY WHICH LEADS TO OR FROM A TOLL BRIDGE OR TOLL FERRY.
- H. R. 19. - INTRODUCED IN THE HOUSE ON DECEMBER 5, BY E. E. DENISON OF ILLINOIS, AND REFERRED TO THE COMMITTEE ON INTERSTATE AND FOREIGN COMMERCE: PROVIDES FOR THE REGULATION OF INTERSTATE COMMERCE BY MOTOR VEHICLES OPERATING AS COMMON CARRIERS OF PERSONS ON THE PUBLIC HIGHWAYS. DESIGNATES CLASS-A MOTOR CARRIERS AS THOSE ENGAGED IN THE TRANSPORTATION AS COMMON CARRIERS OF PERSONS IN INTERSTATE COMMERCE BETWEEN FIXED TERMINI, OR OVER A REGULAR ROUTE. CLASS-B MOTOR CARRIERS EMBRACE ALL OTHERS ENGAGED AS COMMON CARRIERS OF PERSONS IN INTERSTATE COMMERCE. PROVIDES THAT THE ACT SHALL BE ADMINISTERED BY THE STATE AUTHORITIES WHERE AN APPROPRIATE BOARD EXISTS, OR, LACKING THIS, BY THE INTERSTATE COMMERCE COMMISSION. PROVIDES THAT BOTH CLASSES OF CARRIERS SHALL OBTAIN A CERTIFICATE OF PUBLIC CONVENIENCE AND NECESSITY TO BEGIN, OR CONTINUE IN OPERATION. REQUIRES THAT OPERATORS SHALL BE BONDED OR INSURED, OR A SHOWING MADE OF THEIR FINANCIAL RESPONSIBILITY, IN THE DISCRETION OF THE CONSTITUTED AUTHORITIES. PROVIDES FOR THE ESTABLISHMENT OF REASONABLE RATES AND CHARGES, AS APPROVED BY THE STATE BOARDS. DEFINES THE POWERS AND DUTIES OF THE STATE BOARDS AND OF THE INTERSTATE COMMERCE COMMISSION WITH RESPECT TO INTERSTATE MOTOR VEHICLE COMMON CARRIERS. PROVIDES FOR APPEALS FROM DECISIONS OF THE STATE BOARDS TO THE INTERSTATE COMMERCE COMMISSION; FIXES PENALTIES FOR VIOLATION OF THE PROVISIONS OF THE ACT, AND APPROPRIATES A FUND FOR THE ADMINISTRATION OF THE ACT BY THE INTERSTATE COMMERCE COMMISSION. THE ACT DOES NOT APPLY TO COMMON CARRIERS ENGAGED IN INTRASTATE COMMERCE.

- H. R. 129. - INTRODUCED IN THE HOUSE ON DECEMBER 5, BY J. M. EVANS OF MONTANA, AND REFERRED TO THE COMMITTEE ON ROADS: PROVIDES THAT IN STATES CONTAINING UNAPPROPRIATED PUBLIC LANDS IN WHICH THE POPULATION, AS SHOWN BY THE LATEST AVAILABLE FEDERAL CENSUS, DOES NOT EXCEED 10 PER SQUARE MILE, THE SHARE OF THE UNITED STATES PAYABLE ON FEDERAL-AID PROJECTS MAY BE INCREASED BY THE SECRETARY OF AGRICULTURE, UPON REQUEST OF THE STATE HIGHWAY DEPARTMENT, TO ANY PERCENTAGE UP TO AND INCLUDING THE WHOLE COST. PROVIDES FURTHER FOR FEDERAL-AID PAYMENTS UP TO 50 PER CENT OF THE COST WITHOUT OTHER LIMITATION, AND IN THE PUBLIC-LAND STATES FOR INCREASE IN THE FEDERAL PERCENTAGE AS PROVIDED BY SEC. 11 OF THE FEDERAL HIGHWAY ACT.
- H. R. 358. - INTRODUCED IN THE HOUSE ON DECEMBER 5, BY E. B. ALMON OF ALABAMA, AND REFERRED TO THE COMMITTEE ON ROADS: AUTHORIZES THE APPROPRIATION OF \$125,000,000 AND \$7,500,000, FOR FEDERAL-AID, AND FOREST ROADS, RESPECTIVELY, FOR EACH OF THE FISCAL YEARS 1930, AND 1931.
- H. R. 383. - INTRODUCED IN THE HOUSE ON DECEMBER 5, BY C. C. DOWELL OF IOWA, AND REFERRED TO THE COMMITTEE ON 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.
- H. R. 447. - INTRODUCED IN THE HOUSE ON DECEMBER 5, BY C. J. MCLEOD OF MICHIGAN, AND REFERRED TO THE COMMITTEE ON FOREIGN AFFAIRS: PROVIDES FOR THE CREATION OF A PAN AMERICAN PEOPLES GREAT HIGHWAY COMMISSION TO PROMOTE THE CONSTRUCTION OF A HIGHWAY CONNECTING THE CAPITOLS OF CANADA, THE UNITED STATES, AND THE CENTRAL AND SOUTH AMERICAN COUNTRIES.
- H. R. 4625. - INTRODUCED IN THE HOUSE ON DECEMBER 5, BY R. W. MOORE OF VIRGINIA, AND REFERRED TO THE COMMITTEE ON ROADS: AUTHORIZES AND DIRECTS, UNDER THE JURISDICTION OF THE SECRETARY OF AGRICULTURE, THE SURVEY, CONSTRUCTION, AND MAINTENANCE OF A MEMORIAL HIGHWAY TO CONNECT MOUNT VERNON WITH THE ARLINGTON MEMORIAL BRIDGE ACROSS THE POTOMAC RIVER AT WASHINGTON. AUTHORIZES THE APPROPRIATION OF THE FOLLOWING SUMS TO BE AVAILABLE UNTIL EXPENDED: \$500,000, FOR THE FISCAL YEAR 1928; \$2,000,000, FOR THE FISCAL YEAR 1929; \$1,000,000, FOR EACH OF THE FISCAL YEARS 1930, AND 1931.

H. R. 5513. - INTRODUCED IN THE HOUSE ON DECEMBER 5, BY D. B. COLTON OF UTAH, AND REFERRED TO THE COMMITTEE ON ROADS. PROVIDES THAT EXISTING FEDERAL-AID HIGHWAY LEGISLATION BE AMENDED AS FOLLOWS: (1) THAT PAYMENTS, IN EXCESS OF THE PRESENT LIMITATION PER MILE, MAY BE MADE IN THE CASE OF ANY PROJECT INVOLVING CONSTRUCTION IN MOUNTAINOUS, SWAMPY, OR FLOOD LANDS, ON WHICH THE AVERAGE COST PER MILE FOR THE GRADING AND MINOR DRAINAGE STRUCTURES WILL EXCEED \$10,000 PER MILE; OR IN THE CASE OF A PROJECT WHERE THE DENSITY OF POPULATION, OR CHARACTER AND VOLUME OF TRAFFIC MAY REQUIRE A SURFACE OF GREATER WIDTH THAN 18 FEET. IN NO CASE SHALL THE FEDERAL-AID PAYMENTS EXCEED 50 PER CENT OF THE COST OF THE PROJECT, EXCEPT AS SUCH PAYMENTS ARE AUTHORIZED TO BE INCREASED IN THE PUBLIC-LAND STATES. (2) THAT WITH THE APPROVAL OF ANY STATE HIGHWAY DEPARTMENT, THE SECRETARY OF AGRICULTURE MAY APPROVE THE EXPENDITURE OF MORE THAN 60 PER CENT OF THE FEDERAL-AID APPORTIONED TO SUCH A STATE UPON THE PRIMARY OR INTERSTATE HIGHWAYS. (3) THAT IN THE PUBLIC-LAND STATES, WHERE THE POPULATION DOES NOT EXCEED 10 PER SQUARE MILE, THE FEDERAL-AID ALLOTTED TO A PROJECT MAY BE INCREASED TO ANY PERCENTAGE UP TO THE TOTAL COST OF THE PROJECT. (4) THAT THE NUMBERED SHIELD MARKER USED ON THE UNITED STATES HIGHWAYS SHALL NOT BE USED AS AN ADVERTISING MEDIUM, AND SHALL NOT BE DEFACED OR DESTROYED. VIOLATION OF THE ACT IS MADE A MISDEMEANOR PUNISHABLE BY A FINE OF NOT TO EXCEED \$100 OR BY IMPRISONMENT OF NOT MORE THAN 30 DAYS, OR BOTH.

H. R. 5659. - INTRODUCED IN THE HOUSE ON DECEMBER 5, BY B. C. REECE OF TENNESSEE, 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 THE FISCAL YEAR 1929, \$65,000,000 FOR THE FISCAL YEAR 1930, AND \$75,000,000 FOR THE FISCAL YEAR 1931; 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. R. 5772. - INTRODUCED IN THE HOUSE ON DECEMBER 5, BY G. E. CAMPBELL OF PENNSYLVANIA, AND REFERRED TO THE COMMITTEE ON THE JUDICIARY: 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. - INTRODUCED IN THE SENATE ON DECEMBER 12, READ TWICE, AND REFERRED TO THE COMMITTEE ON APPROPRIATIONS. THIS IS THE URGENT DEFICIENCY BILL. PROVIDES FOR AN ADDITIONAL AMOUNT FOR CARRYING OUT THE PROVISIONS OF SECTION 23 OF THE FEDERAL HIGHWAY ACT, APPROVED NOVEMBER 9, 1921, \$1,880,000, TO REMAIN AVAILABLE UNTIL EXPENDED, BEING PART OF \$7,500,000 AUTHORIZED TO BE APPROPRIATED FOR THE FISCAL YEAR 1928 BY THE ACT APPROVED JUNE 22, 1926. PROVIDES \$1,000,000 FOR THE CONSTRUCTION, RECONSTRUCTION, AND IMPROVEMENT OF ROADS AND TRAILS IN THE NATIONAL PARKS UNDER THE JURISDICTION OF THE DEPARTMENT OF THE INTERIOR. THIS IS PART OF THE AUTHORIZATION IN THE APPROPRIATION ACT OF THE DEPARTMENT OF THE INTERIOR FOR THE FISCAL YEAR 1928.
- H. R. 6957. - INTRODUCED IN THE HOUSE ON DECEMBER 12, BY W. P. HOLADAY OF ILLINOIS, AND REFERRED TO THE COMMITTEE ON WAYS AND MEANS: PROVIDES FOR THE CONSTRUCTION, MAINTENANCE, AND REGULATION OF A NATION-WIDE SYSTEM OF DURABLE HARD-SURFACED POST-ROADS UNDER THE SUPERVISION OF THE SECRETARY OF AGRICULTURE, TO BE COMPLETED WITHIN FIVE YEARS; AND AUTHORIZES A BOND ISSUE OF 5 BILLION DOLLARS FOR THIS PURPOSE.
- H. R. 6992. - INTRODUCED IN THE HOUSE ON DECEMBER 12, BY JAMES O'CONNOR OF LOUISIANA, AND REFERRED TO THE COMMITTEE ON FLOOD CONTROL: PROVIDES, AMONG OTHER THINGS, FOR THE EXPENDITURE OF 25 MILLION DOLLARS BY THE SECRETARY OF WAR, THROUGH THE CORPS OF ENGINEERS, IN THE FLOODED AREA OF THE MISSISSIPPI RIVER VALLEY, FOR CHANNEL STABILIZATION AND BANK PROTECTION, THE REPAIR OF FLOOD PROTECTIVE WORKS, PUBLIC HIGHWAYS, POST ROADS AND BRIDGES, AND THE REPAIR AND STRENGTHENING OF LEVEES.
- H. R. 7016. - INTRODUCED IN THE HOUSE ON DECEMBER 12, BY H. R. RATHBONE OF ILLINOIS, AND REFERRED TO THE COMMITTEE ON ROADS: AUTHORIZES THE CONSTRUCTION AND MAINTENANCE OF A MEMORIAL HIGHWAY FROM SPRINGFIELD, ILL., - THE BURIAL

PLACE OF ABRAHAM LINCOLN - TO BEARDSTOWN, ILL., - THE PLACE OF THE FAMOUS DUFF-ARMSTRONG TRIAL. THE WORK IS TO BE ACCOMPLISHED UNDER THE DIRECTION OF THE SECRETARY OF AGRICULTURE WITH THE AUTHORIZED APPROPRIATION OF \$2,000,000.

H. R. 7019. - INTRODUCED IN THE HOUSE ON DECEMBER 12, BY C. G. EDWARDS OF GEORGIA, AND REFERRED TO THE COMMITTEE ON ROADS: PROVIDES FOR THE AMENDMENT OF EXISTING FEDERAL-AID ROAD LEGISLATION BY AUTHORIZING AN APPROPRIATION, FOR THE CONSTRUCTION OF FEDERAL-AID ROADS, OF \$150,000,000, FOR EACH OF THE FISCAL YEARS 1930, AND 1931.

H. R. 7205. - INTRODUCED IN THE HOUSE ON DECEMBER 13, BY C. B. HUDSPETH OF TEXAS, AND REFERRED TO THE COMMITTEE ON ROADS: AUTHORIZES AN APPROPRIATION OF \$18,000,000 FOR THE CONSTRUCTION OF A MILITARY ROAD, UNDER THE DIRECTION OF THE SECRETARY OF WAR, PARALLELING THE MEXICAN BORDER.

H. R. 7343. - INTRODUCED IN THE HOUSE ON DECEMBER 14, BY D. B. COLTON OF UTAH, AND REFERRED TO THE COMMITTEE ON ROADS: PROVIDES FOR THE AMENDMENT OF EXISTING FEDERAL-AID ROAD LEGISLATION, BY AUTHORIZING AN APPROPRIATION OF \$3,500,000 FOR EACH OF THE FISCAL YEARS 1929, 1930, AND 1931 FOR THE CONSTRUCTION, BY THE BUREAU, OF THE MAIN ROADS, IN THE PUBLIC-LAND STATES, THROUGH UNAPPROPRIATED OR UNRESERVED PUBLIC LANDS, NON-TAXABLE INDIAN LANDS, OR OTHER FEDERAL RESERVATIONS.

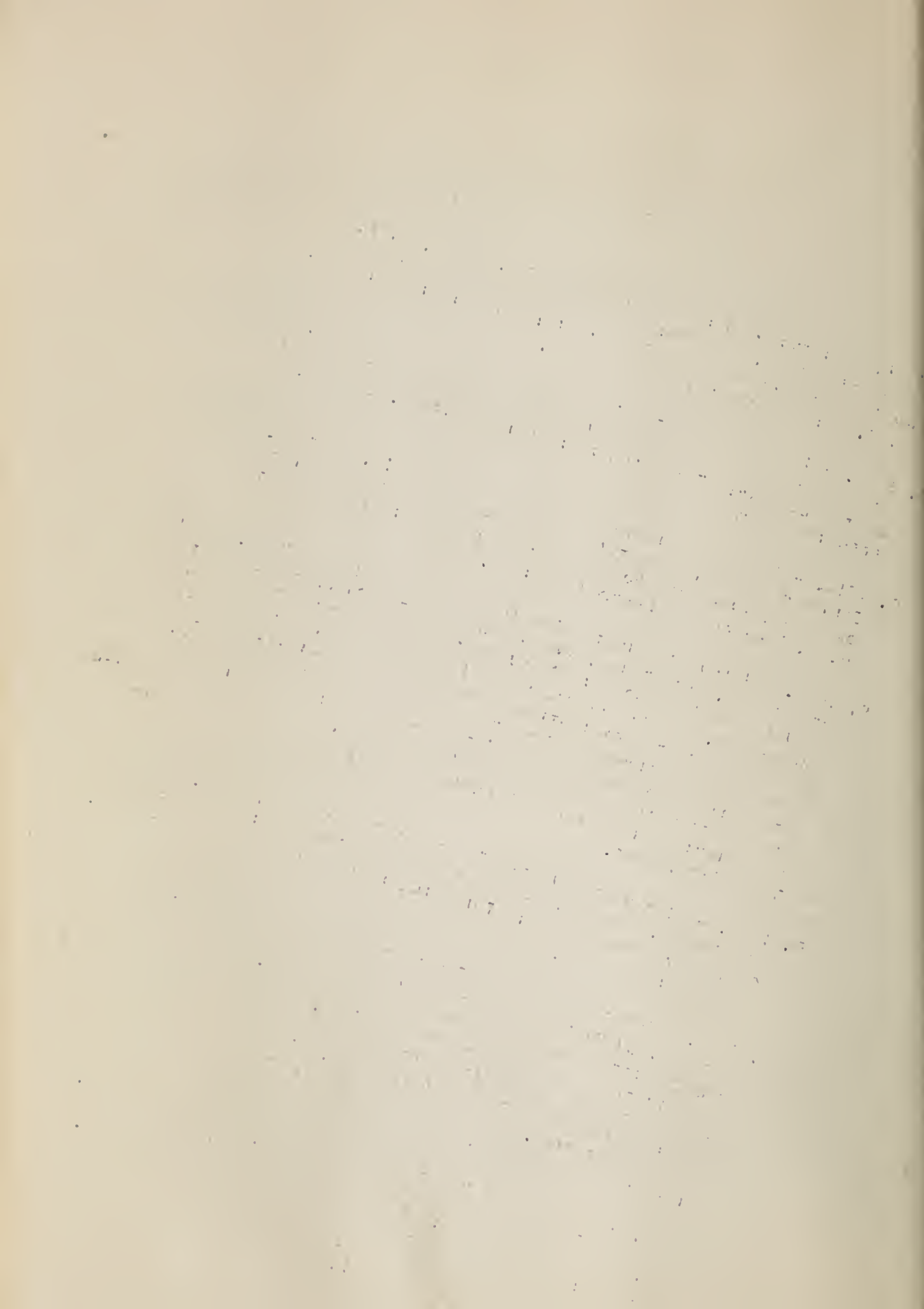
H. R. 7344. - INTRODUCED IN THE HOUSE ON DECEMBER 14, BY C. C. DOWELL OF IOWA, AND REFERRED TO THE COMMITTEE ON ROADS: AUTHORIZES THE PRESIDENT TO DETAIL ENGINEERS OF THE BUREAU TO ASSIST THE GOVERNMENTS OF THE LATIN-AMERICAN REPUBLICS IN HIGHWAY MATTERS, UPON APPLICATION BY THE GOVERNMENTS CONCERNED.

H. R. 7351. - INTRODUCED IN THE HOUSE ON DECEMBER 14, BY M. C. TARVER OF GEORGIA, AND REFERRED TO THE COMMITTEE ON ROADS: PROVIDES FOR THE EXTENSION OF FEDERAL AID TO RURAL FREE DELIVERY AND STAR MAIL ROUTES WHICH DO NOT CONSTITUTE PORTIONS OF THE PRESENT FEDERAL-AID OR STATE HIGHWAY SYSTEMS. PROVIDES THAT THE MAXIMUM APPROPRIATION SHALL NOT EXCEED ONE-THIRD OF THE AMOUNT APPROPRIATED FOR FEDERAL-AID ROADS. THIS SUM IS TO BE IN ADDITION TO THE REGULAR FEDERAL-AID ROAD APPROPRIATION, AND TO BE APPORTIONED IN THE RATIO OF RURAL FREE DELIVERY AND STAR ROUTE MILEAGE.

- H. R. 7355. - INTRODUCED IN THE HOUSE ON DECEMBER 14, BY SCOTT LEAVITT OF MONTANA, AND REFERRED TO THE COMMITTEE ON ROADS: AUTHORIZES THE SECRETARY OF AGRICULTURE TO PAY TO ROOSEVELT COUNTY, MONT., AN AMOUNT EQUIVALENT TO THAT EXPENDED BY THE COUNTY PRIOR TO NOVEMBER 9, 1921, FOR THE CONSTRUCTION OF THE ROOSEVELT HIGHWAY ACROSS THE UNPATENTED INDIAN LANDS WITHIN THE FORT PECK INDIAN RESERVATION.
- H. R. 7724. - INTRODUCED IN THE HOUSE ON DECEMBER 16, BY C. G. EDWARDS OF GEORGIA, AND REFERRED TO THE COMMITTEE ON ROADS: PROVIDES THAT PREFERENCE SHALL BE GIVEN TO AMERICAN MATERIALS AND EQUIPMENT IN HIGHWAY CONSTRUCTION; WITH THE PURPOSE OF BREAKING THE HOLD OF THE FOREIGN CEMENT TRUST UPON HIGHWAY CONSTRUCTION IN THIS COUNTRY, AND BUILDING UP AMERICAN INDUSTRIES.
- H. R. 7901. - INTRODUCED IN THE HOUSE ON DECEMBER 19, BY FRANK MURPHY OF OHIO, AND REFERRED TO THE COMMITTEE ON THE JUDICIARY: PROVIDES, IN ALL LEGAL ACTIONS ARISING FROM ACCIDENTS AT RAILWAY GRADE CROSSINGS, THAT NO RULE SHALL BE ADOPTED OR LAID DOWN BY THE FEDERAL COURT OF THE UNITED STATES CONTRARY TO THE LAW OF THE STATE, TERRITORY, OR PLACE WHERE SUCH ACCIDENT OCCURRED, BUT THE LAW OF THE PLACE WHERE SUCH ACCIDENT OCCURRED SHALL GOVERN AND BE FOLLOWED IN ALL SUCH CAUSES OF ACTION.
- H. R. 8127. - INTRODUCED IN THE HOUSE ON DECEMBER 20, BY A. M. WYANT OF PENNSYLVANIA, AND REFERRED TO THE COMMITTEE ON EXPENDITURES IN THE EXECUTIVE DEPARTMENTS: PROVIDES FOR THE TRANSFER TO THE DEPARTMENT OF THE INTERIOR OF THE PUBLIC-WORKS FUNCTIONS OF THE FEDERAL GOVERNMENT. THIS INCLUDES THE BUREAU OF PUBLIC ROADS. PROVIDES THAT ARMY OFFICERS MAY BE DETAILED TO NONMILITARY DUTIES HAVING TO DO WITH RIVER AND HARBOR IMPROVEMENTS, OR OTHER CIVIL FUNCTIONS OF THE DEPARTMENT OF THE INTERIOR. ALL THE PRESENT CIVILIAN EMPLOYEES, APPROPRIATIONS, AND EQUIPMENT ARE TO BE TRANSFERRED TO THE DEPARTMENT OF THE INTERIOR, WITHOUT CHANGE IN STATUS. THE PRESIDENT IS AUTHORIZED TO APPOINT AN ASSISTANT SECRETARY OF THE INTERIOR IN CHARGE OF THE PUBLIC-WORKS FUNCTIONS.
- H. J. RES. 107. - INTRODUCED IN THE HOUSE ON DECEMBER 16, BY J. C. LINTHICUM OF MARYLAND, AND REFERRED TO THE COMMITTEE ON FOREIGN AFFAIRS. THIS RESOLUTION IS IDENTICAL WITH S. J. RES. 31 AS DESCRIBED BELOW.

- H. J. RES. 108. -- INTRODUCED IN THE HOUSE ON DECEMBER 16, BY J. C. LINTHICUM OF MARYLAND, AND REFERRED TO THE COMMITTEE ON FOREIGN AFFAIRS; THIS RESOLUTION IS IDENTICAL WITH S. J. RES. 30 AS DESCRIBED BELOW.
- S. 659. -- INTRODUCED IN THE SENATE ON DECEMBER 6, BY KEY PITTMAN OF NEVADA, AND REFERRED TO THE COMMITTEE ON POST OFFICES AND POST ROADS: PROVIDES THAT EXISTING FEDERAL-AID ROAD LEGISLATION BE AMENDED SO THAT ALL BUT THE PUBLIC-LAND STATES SHALL MAINTAIN FEDERAL-AID PROJECTS AT THEIR OWN EXPENSE. IN THE PUBLIC-LAND STATES THE FEDERAL SHARE OF THE MAINTENANCE COST SHALL BE IN THE SAME PROPORTION AS THE TOTAL AREA OF UNAPPROPRIATED PUBLIC LAND IN THE STATE BEARS TO THE TOTAL LAND IN THE STATE. PROVIDES FOR DISCONTINUANCE OF FEDERAL-AID PARTICIPATION IN THOSE STATES WHERE MAINTENANCE HAS BEEN NEGLECTED AFTER THE FEDERAL SHARE HAS BEEN MADE AVAILABLE, AND THE MAINTENANCE OF THE PROJECT BY THE FEDERAL GOVERNMENT, SUBJECT TO LATER REIMBURSEMENT.
- S. 749. -- INTRODUCED IN THE SENATE ON DECEMBER 6, BY H. BINGHAM OF CONNECTICUT, READ TWICE, AND REFERRED TO THE COMMITTEE ON COMMERCE; PROVIDES FOR THE AMENDMENT OF THE ACT TO REGULATE THE CONSTRUCTION OF BRIDGES OVER NAVIGABLE WATERS, APPROVED MARCH 23, 1906. THE AMENDMENT PROVIDES FOR THE FIXING OF TOLLS FOR PRIVATELY AND PUBLICLY-OWNED TOLL BRIDGES AND THE METHOD OF ESTIMATING THE COST FOR THE RECAPTURE OF THE PRIVATELY-OWNED TOLL BRIDGES BY PURCHASE.
- S. 1182. -- INTRODUCED IN THE SENATE ON DECEMBER 6, BY C. L. McNARY OF OREGON, READ TWICE, AND REFERRED TO THE COMMITTEE ON AGRICULTURE AND FORESTRY; AUTHORIZES THE SECRETARY OF AGRICULTURE TO COOPERATE WITH THE STATE HIGHWAY DEPARTMENTS IN SELECTING AND ASSIGNING NAMES TO HIGHWAYS EMBRACED IN THE FEDERAL-AID HIGHWAY SYSTEM.
- S. 1252. -- INTRODUCED IN THE SENATE ON DECEMBER 6, BY H. W. WATSON OF PENNSYLVANIA, READ TWICE, AND REFERRED TO THE COMMITTEE ON INTERSTATE COMMERCE; PROVIDES FOR THE REGULATION OF INTERSTATE COMMERCE OF MOTOR VEHICLES OPERATING AS COMMON CARRIERS OF PERSONS ON THE PUBLIC HIGHWAYS. THE BILL IS IDENTICAL WITH H. R. 19 DESCRIBED ABOVE.
- S. 1286. -- INTRODUCED IN THE SENATE ON DECEMBER 6, BY A. CAPPER OF KANSAS, READ TWICE, AND REFERRED TO THE COMMITTEE ON POST OFFICES AND POST ROADS; THIS BILL IS IDENTICAL WITH H. R. 5659 AS DESCRIBED ABOVE.

- S. 1341. - INTRODUCED IN THE SENATE ON DECEMBER 6, BY T. L. ODDIE OF NEVADA, READ TWICE, AND REFERRED TO THE COMMITTEE ON POST OFFICES AND POST ROADS: THIS BILL IS IDENTICAL WITH H. R. 5518 AS PREVIOUSLY DESCRIBED.
- S. 1369. - INTRODUCED IN THE SENATE ON DECEMBER 6, BY C. A. SWANSON OF VIRGINIA, READ TWICE, AND REFERRED TO THE COMMITTEE ON THE LIBRARY: THIS BILL IS IDENTICAL WITH H. R. 4625, AS DESCRIBED ABOVE.
- S. 1718. - INTRODUCED IN THE SENATE ON DECEMBER 15, BY T. L. ODDIE OF NEVADA, READ TWICE, AND REFERRED TO THE COMMITTEE ON POST OFFICES AND POST ROADS: THIS BILL IS IDENTICAL TO H. R. 7344 AS PREVIOUSLY DESCRIBED.
- S. 1804. - INTRODUCED IN THE SENATE ON DECEMBER 15, BY T. J. WALSH OF MONTANA, READ TWICE, AND REFERRED TO THE COMMITTEE ON POST OFFICES AND POST ROADS: PROVIDES THAT THE MONTANA FEDERAL-AID ROAD FUNDS, FOR THE FISCAL YEARS 1924, AND 1925, WHICH REMAIN UNEXPENDED AT THE EXPIRATION OF THE LEGAL TIME LIMIT, SHALL NOT BE REAPPORTIONED TO THE OTHER STATES, AS PROVIDED BY LAW; BUT SHALL BE EXPENDED BY THE SECRETARY OF AGRICULTURE IN THE CONSTRUCTION OF A ROAD FROM RED LODGE, MONT., SO AS TO CONNECT WITH THE EXISTING HIGHWAY INTO YELLOWSTONE NATIONAL PARK, LEADING TO COOKE CITY, MONT.
- S. 1806. - INTRODUCED IN THE SENATE ON DECEMBER 15, BY T. J. WALSH OF MONTANA, READ TWICE, AND REFERRED TO THE COMMITTEE ON POST OFFICES AND POST ROADS; THIS BILL IS IDENTICAL WITH H. R. 7355, AS DESCRIBED ABOVE.
- S. 1900. - INTRODUCED IN THE SENATE ON DECEMBER 17, BY G. H. MOSES (FOR MR. DU PONT) OF NEW HAMPSHIRE, READ TWICE, AND REFERRED TO THE COMMITTEE ON POST OFFICES AND POST ROADS: PROVIDES FOR THE ORGANIZATION OF A NATIONAL SURVEY COMMISSION FOR THE CONSTRUCTION OF A POST ROAD AND MILITARY HIGHWAY FROM A POINT ALONG THE ATLANTIC SEABOARD TO THE PACIFIC COAST. THE RIGHT OF WAY IS TO BE 500 FEET WIDE. A STUDY AND REPORT IS TO BE MADE ON CERTAIN HIGHWAYS CONNECTING WITH THE CENTRAL SUPERHIGHWAY.
- S. 1925. - INTRODUCED IN THE SENATE ON DECEMBER 17, BY L. D. TYSON OF TENNESSEE, AND REFERRED TO THE COMMITTEE ON POST OFFICES AND POST ROADS: THIS BILL IS IDENTICAL WITH H. R. 5659 AS DESCRIBED ABOVE EXCEPT THAT \$50,000,000 IS AUTHORIZED TO BE APPROPRIATED FOR EACH OF THE FISCAL YEARS 1929, AND 1930, AND NO AUTHORIZATION IS MADE FOR 1931.



- S. 1945. - INTRODUCED IN THE SENATE ON DECEMBER 19, BY K. MCKELLAR OF TENNESSEE, READ TWICE, AND REFERRED TO THE COMMITTEE ON POST OFFICES AND POST ROADS: THIS BILL IS IDENTICAL WITH H. R. 5659 DESCRIBED ABOVE, WITH THE EXCEPTION THAT AUTHORIZATION FOR APPROPRIATIONS ARE MADE FOR THE FISCAL YEARS 1929, 1930, AND 1931, OF \$50,000,000, \$75,000,000, AND \$100,000,000 RESPECTIVELY.
- S. J. RES. 19. - INTRODUCED IN THE SENATE ON DECEMBER 6, BY C. L. McNARY OF OREGON, READ TWICE, AND REFERRED TO THE COMMITTEE ON AGRICULTURE AND FORESTRY: PROVIDES FOR DESIGNATING THE ROUTE OF THE OREGON TRAIL FROM INDEPENDENCE, MO., TO SEASIDE, ORE., AND TO OLYMPIA, WN.
- S. J. RES. 30. - INTRODUCED IN THE SENATE ON DECEMBER 12, BY L. C. Phipps OF COLORADO, READ TWICE, AND REFERRED TO THE COMMITTEE ON FOREIGN RELATIONS: 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 AT RIO DE JANEIRO.
- S. J. RES. 31. - INTRODUCED IN THE SENATE ON DECEMBER 12, BY L. C. Phipps OF COLORADO, READ TWICE, AND REFERRED TO THE COMMITTEE ON FOREIGN RELATIONS: AUTHORIZES AND REQUESTS THE PRESIDENT TO EXTEND TO THE PERMANENT INTERNATIONAL ASSOCIATION OF ROAD CONGRESSES AN INVITATION TO HOLD THE SIXTH SESSION IN THE UNITED STATES, EITHER IN 1929, OR 1930. ALSO AUTHORIZES TO BE APPROPRIATED THE SUM OF \$25,000 FOR THE EXPENSES OF SUCH SESSION AS MAY NECESSARILY BE INCURRED BY THE GOVERNMENT OF THE UNITED STATES.

CORRECTION

(NOT FOR RELEASE)

THE INFORMATION ON GRADE-CROSSING ELIMINATION, SHOWN ON PAGES 19 TO 21 OF THE NEWS LETTER FOR NOVEMBER, 1927, IS IN ERROR. THE CORRECTED TABLE AS OF NOVEMBER 11, 1927 FOLLOWS:

RAILROAD GRADE CROSSINGS ELIMINATED WITH FEDERAL AID FROM NOVEMBER 9, 1921 TO NOVEMBER 11, 1927

STATE	NUMBER OF CROSSINGS : ELIMINATED WITH F.A. : ON F.A. PLANS SUBMITTED TO HEAD-QUARTERS OFFICE :		NUMBER OF CROSSINGS : ELIMINATED WITH F.A. : BY GRADE SEPARATION :		NUMBER OF CROSSINGS : ELIMINATED WITH F.A. : BY RELOCATION OF HIGHWAY :		TOTAL NUMBER OF CROSSINGS : ELIMINATED WITH F.A. :	
	PRIMARY : ROADS	SECONDARY : ROADS	PRIMARY : ROADS	SECONDARY : ROADS	PRIMARY : ROADS	SECONDARY : ROADS	PRIMARY : ROADS	SECONDARY : ROADS
ALABAMA	64	54	12	9	23	20	40	23
ARIZONA	8	26	0	2	0	5	0	7
ARKANSAS	54	65	5	2	0	2	5	4
CALIFORNIA	53	17	24	1	14	2	38	3
COLORADO	55	23	12	0	12	6	24	6
CONNECTICUT	10	2	4	2	0	0	4	2
DELAWARE	4	12	0	0	0	0	0	0
FLORIDA	13	10	2	4	1	0	3	4
GEORGIA	121	180	14	17	23	99	37	116
IDAHO	59	8	12	0	18	1	30	1
ILLINOIS	103	87	7	5	3	7	10	12
INDIANA	68	17	5	2	2	1	7	3
IOWA	119	91	24	15	30	17	54	32
KANSAS	141	89	11	13	13	16	24	29
KENTUCKY	58	56	10	4	7	7	17	11
LOUISIANA	45	67	4	3	7	6	11	9
MAINE	13	38	2	3	6	10	8	13
MARYLAND	8	9	2	3	0	2	2	5
MASSACHUSETTS	34	17	5	2	2	1	7	3
MICHIGAN	77	41	13	4	6	5	19	9
MINNESOTA	188	112	30	18	53	22	83	40
MISSISSIPPI	54	73	19	7	14	8	32	15
MISSOURI	114	59	14	7	14	2	28	9
MONTANA	55	43	8	3	19	22	27	25
NEBRASKA	119	118	7	6	24	16	31	22
NEVADA	31	19	9	1	14	6	23	7

(CONTINUED FROM PRECEDING PAGE)

STATE	NUMBER OF CROSSINGS : ON F.A. PLANS SUB-		NUMBER OF CROSSINGS : ELIMINATED WITH F.A.:		NUMBER OF CROSSINGS : ELIMINATED WITH F.A.:		TOTAL NUMBER OF CROSSINGS	
	ELIMINATED WITH F.A.:	ELIMINATED WITH F.A.:	ELIMINATED WITH F.A.:	ELIMINATED WITH F.A.:	ELIMINATED WITH F.A.:	ELIMINATED WITH F.A.:	ELIMINATED WITH F.A.:	ELIMINATED WITH F.A.:
	MITTED TO HEAD-	BY GRADE SEPAR-	BY RELOCATION OF	BY RELOCATION OF	BY RELOCATION OF	BY RELOCATION OF	BY RELOCATION OF	BY RELOCATION OF
	QUARTERS OFFICE	TION	HIGHWAY	HIGHWAY	HIGHWAY	HIGHWAY	HIGHWAY	HIGHWAY
	PRIMARY : ROADS	SECONDARY : ROADS	PRIMARY : ROADS	SECONDARY : ROADS	PRIMARY : ROADS	SECONDARY : ROADS	PRIMARY : ROADS	SECONDARY : ROADS
NEW HAMPSHIRE	11	29	5	3	0	4	5	7
NEW JERSEY	31	22	5	3	8	1	13	4
NEW MEXICO	15	31	3	3	0	10	3	13
NEW YORK	58	82	14	9	5	10	19	19
NORTH CAROLINA	75	62	30	8	12	17	42	25
NORTH DAKOTA	107	98	17	1	13	3	30	4
OHIO	81	89	9	5	9	15	18	20
OKLAHOMA	42	78	10	14	2	13	12	27
OREGON	22	16	6	1	8	0	14	1
PENNSYLVANIA	103	96	17	13	19	24	36	37
RHODE ISLAND	6	10	3	1	0	0	3	1
SOUTH CAROLINA	142	77	11	10	66	17	77	27
SOUTH DAKOTA	82	84	14	0	14	9	28	9
TENNESSEE	45	25	14	5	1	5	15	10
TEXAS	180	263	68	33	14	106	82	139
UTAH	28	25	6	2	16	4	22	6
VERMONT	9	17	1	1	6	2	7	3
VIRGINIA	51	44	13	13	13	8	26	21
WASHINGTON	49	21	14	1	9	4	23	5
WEST VIRGINIA	29	27	7	3	3	7	10	10
WISCONSIN	99	64	18	7	33	26	51	33
WYOMING	26	21	6	0	6	13	12	13
HAWAII	1	7	0	0	0	4	0	4
TOTALS	3,013	2,522	545	269	567	585	1,112	854
GRAND TOTAL	5,635	814	1,152	1,152	1,112	854	1,966	1,966

COST DATA ON CONSTRUCTION OF PENNSYLVANIA WIRE-ROPE GUARD RAIL.

CONTRIBUTED BY T. E. KESTING OF THE DIVISION OF CONTROL.

(NOT FOR RELEASE)

ACCURATE COST DATA ON THE CONSTRUCTION OF WIRE-ROPE GUARD RAIL WAS OBTAINED ON THE SHILLINGTON-WEST READING HIGHWAY IN PENNSYLVANIA. ORDINARILY THIS WORK IS DONE BY THE STATE, BUT ON THIS PROJECT THE GUARD RAIL WAS BUILT BY THE CONTRACTOR AT A PRICE OF \$1.00 PER LINEAL FOOT. THE DISTANCE PAID FOR WAS MEASURED FROM END POST TO END POST.

THE GUARD RAIL WAS THE PENNSYLVANIA STANDARD POST-AND-CABLE TYPE. THIS CONSISTS OF TWO LINES OF 3/4-INCH GALVANIZED WIRE CABLE THREADED THROUGH 6-INCH WOODEN POSTS, SPACED TEN FEET CENTER TO CENTER. THE CABLES AT EACH END POST ARE HELD IN POSITION AND TIGHTENED BY MEANS OF NUTS ON THE ENDS OF LONG EYE BOLTS. AN ANCHOR CABLE, BETWEEN EACH END POST AND A CONCRETE "DEAD MAN", BURIED IN THE GROUND, HOLDS THE SECTION RIGID.

THE POSTS WERE CREOSOTED BEFORE ERECTION AND PAINTED AFTERWARDS WITH THREE COATS OF WHITE PAINT. TWO COATS OF BLACK PAINT WERE APPLIED TO THE CREOSOTED AREA 12 INCHES ABOVE THE SURFACE OF THE GROUND. THE ACTUAL COST OF THE MATERIAL AND LABOR TO THE CONTRACTOR FOLLOWS:

THE TOTAL COST OF THE MATERIAL REQUIRED FOR THE SIX SECTIONS OF GUARD RAIL, TOTALLING 660 LINEAL FEET, AVERAGED \$0.343 PER LINEAL FOOT. THIS COST WAS SEGREGATED AS FOLLOWS:

72 UNTREATED POSTS AT \$0.60 - - - - -	\$43.20
CABLE, EYE BOLTS, NUTS, WASHERS, AND CLIPS - - - - -	138.50
CREOSOTE, WHITE AND BLACK PAINT - - - - -	15.85
12 BAGS OF PORTLAND CEMENT AT \$2.40 - - - - -	<u>28.80</u>
TOTAL COST OF MATERIAL - - - - -	\$226.45

THE TOTAL COST OF LABOR AND TRUCKS EXTENDING OVER A 10-DAY PERIOD, FROM OCTOBER 24 TO NOVEMBER 3, INCLUSIVE, AVERAGED \$0.401 PER LINEAL FOOT. THIS COST WAS MADE UP OF THE FOLLOWING ITEMS:

SKILLED LABOR:

34	MAN-HOURS	AT	\$1.15	- - - - -	\$39.10
11 $\frac{1}{2}$	"	"	0.90	- - - - -	10.35
59 $\frac{1}{2}$	"	"	0.80	- - - - -	47.60
35 $\frac{1}{2}$	"	"	0.70	- - - - -	24.85
30	"	"	0.55	- - - - -	16.50
				SUB-TOTAL	<u>\$138.40</u>

COMMON LABOR:

30	MAN-HOURS	AT	\$0.50	- - - - -	\$15.00
176 $\frac{1}{2}$	"	"	0.45	- - - - -	79.42
				SUB-TOTAL	<u>\$94.42</u>

MOTOR TRUCKS:

4	MACK TRUCK-HOURS	AT	\$3.00	- - - - -	12.00
5	REO	"	2.00	- - - - -	10.00
6 $\frac{1}{2}$	FORD	"	1.50	- - - - -	9.75
				SUB-TOTAL	<u>\$31.75</u>

TOTAL COST OF LABOR AND TRUCKS \$264.57

THE GRAND TOTAL COST OF THE MATERIAL AND LABOR FOR THE CONSTRUCTION OF THE 660 FEET OF WIRE-ROPE GUARD RAIL WAS \$491.02, OR AN AVERAGE OF \$0.744 PER LINEAL FOOT. AT THE CONTRACT PRICE OF \$1.00 PER LINEAL FOOT, A BALANCE OF \$0.256 PER LINEAL FOOT WAS LEFT FOR PROFIT AND OVERHEAD COST.

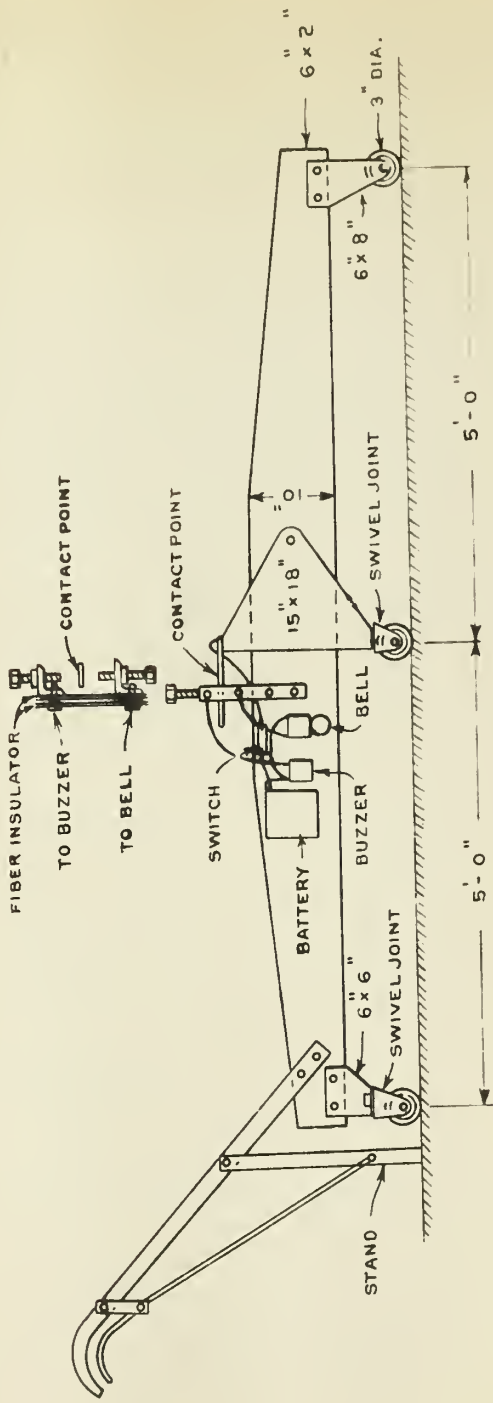
CALIFORNIA DEVELOPS ELECTRICAL PAVEMENT-BUMP INDICATOR.

CONTRIBUTED BY V. G. WATSON OF THE DIVISION OF CONTROL.

(NOT FOR RELEASE)

THE CALIFORNIA STATE HIGHWAY COMMISSION HAS DEVELOPED AN INGENIOUS ELECTRICAL DEVICE FOR LOCATING THE POSITION OF BUMPS OR DEPRESSIONS, THAT EXCEED THE SPECIFICATION REQUIREMENTS, IN HARD-SURFACE PAVEMENTS. THE MACHINE, SHOWN IN THE ACCOMPANYING SKETCH, CONSISTS, ESSENTIALLY, OF A 10-FOOT STRAIGHT EDGE MOUNTED ON ROLLERS, SO THAT IT MAY BE PUSHED ALONG A PAVEMENT, BY ITS WOODEN HANDLES, AS EASILY AS AN EMPTY WHEEL BARROW. THE CENTER WHEEL IS ATTACHED TO A FRAME WHICH IS HINGED ON THE STRAIGHT EDGE IN SUCH A MANNER AS TO MOVE UP AND DOWN AS THE WHEEL FOLLOWS THE IRREGULARITIES IN THE SURFACE OF THE PAVEMENT. TO THE FRAME, HOLDING THE MOVABLE CENTER WHEEL, IS ATTACHED A CONTACT POINT WHICH MAKES A CIRCUIT, THROUGH A FIXED CONTACT POINT, TO A BELL THAT RINGS FOR LOW SPOTS IN THE SURFACE. FOR BUMPS, THE POINTER COMPLETES THE CIRCUIT TO A BUZZER THROUGH ANOTHER FIXED CONTACT POINT. THE FIXED CONTACT POINTS MAY BE ADJUSTED WITH LOCK NUTS SO THAT THE BELL WILL RING, OR THE BUZZER WILL OPERATE, FOR THE MAXIMUM DEVIATION FROM A 10-FOOT STRAIGHT EDGE, PROVIDED FOR IN THE SPECIFICATIONS. THE DEVICE WAS USED ON CALIFORNIA FEDERAL-AID PROJECT 161-E, AND THE STRAIGHT EDGE WAS BUILT IN TWO SECTIONS SO AS TO FACILITATE TRANSPORTATION TO OTHER JOBS.

THE MACHINE IS RUN ALONG EACH OF THE FOUR WHEEL TRACKS OF A TWO-LANE PAVEMENT AND IN THIS WAY DETECTS ANY UNEVENNESS WHICH MAY BE UNCOMFORTABLE FOR MOTOR VEHICLE USERS. IT IS THE INTENTION, ON LATER MODELS, TO INCREASE THE DIAMETER OF THE ROLLERS FROM 3 TO 6 INCHES. THE SMALL WHEELS DROP INTO MINOR DEPRESSIONS BETWEEN SCREENINGS, ON BITUMINOUS PAVEMENTS, AND GIVE A FALSE IMPRESSION CONCERNING THE IRREGULARITIES IN THE SURFACE. ON BITUMINOUS PAVEMENT, THE HIGH PLACES ARE MARKED FOR FURTHER ROLLING AND THE LOW PLACES ARE LEFT UNDISTURBED, UNLESS THE DEPTH IS EXCESSIVE. UP TO THIS TIME THE MACHINE HAS NOT BEEN USED ON PORTLAND CEMENT CONCRETE PAVEMENTS.



PAVEMENT - BUMP INDICATOR DEVELOPED BY THE CALIFORNIA STATE HIGHWAY COMMISSION

MATERIALS ENGINEERS TO ATTEND HEADQUARTERS SHORT COURSE

CONTRIBUTED BY F. H. JACKSON OF THE DIVISION OF TESTS

(NOT FOR RELEASE)

DURING THE PERIOD FROM JANUARY 9 TO 28, 1928, INCLUSIVE, THE VARIOUS DISTRICT MATERIALS ENGINEERS WILL MEET IN WASHINGTON FOR THE PURPOSE OF TAKING A SHORT COURSE IN MATERIALS TESTING AND CONTROL. THE COURSE WILL FOLLOW THE SAME GENERAL LINES AS THE FIRST MATERIALS ENGINEERS' MEETING HELD IN 1923, AND WILL CONSIST OF A COMBINATION LECTURE AND LABORATORY COURSE IN MATERIALS, TOGETHER WITH A NUMBER OF INFORMAL DISCUSSIONS OF VARIOUS PHASES OF THE MATERIALS CONTROL PROBLEM. AMONG THE SUBJECTS TO BE COVERED IN THE LECTURE COURSE WILL BE THE FOLLOWING:

ORGANIZATION AND ADMINISTRATION
OF A STATE HIGHWAY DIVISION OF
MATERIALS.

FIELD CONTROL OF THE QUALITY OF
CONCRETE.

THE DESIGN AND CONTROL OF BITUMINOUS
MIXTURES.

THE DESIGN OF CONCRETE MIXTURES.

SIGNIFICANCE OF THE SPECIFICATION TEST
REQUIREMENTS FOR ROAD MATERIALS.

THE DESIGN, USE, AND CARE OF TESTING
MACHINES.

CERTAIN OF THESE LECTURES WILL BE GIVEN BY QUALIFIED BUREAU MEN, OTHERS BY STATE TESTING ENGINEERS WHO HAVE ATTAINED PROMINENCE IN THE SPECIFIC FIELDS COVERED BY THEIR SUBJECTS.

IT IS FELT BY THE BUREAU THAT THE SHORT COURSE IN MATERIALS WILL BE OF PARTICULAR VALUE AT THIS TIME DUE TO THE FACT THAT A NUMBER OF THE MATERIALS ENGINEERS HAVE BEEN RECENTLY APPOINTED AND CONSEQUENTLY DID NOT HAVE THE OPPORTUNITY OF TAKING THE FIRST MATERIALS COURSE IN 1923.

REPORT TO THE BOARD OF DIRECTORS
ON THE PROGRESS OF THE WORK DURING THE YEAR 1900

1900

The Board of Directors has the honor to acknowledge the receipt of your report on the progress of the work during the year 1900. The report is most interesting and shows a steady and successful progress in all the lines of the work. The Board is pleased to note the increase in the number of members and the improvement in the quality of the work. The Board is confident that the work of the year 1901 will be even more successful than that of 1900.

The Board of Directors has the honor to acknowledge the receipt of your report on the progress of the work during the year 1900. The report is most interesting and shows a steady and successful progress in all the lines of the work. The Board is pleased to note the increase in the number of members and the improvement in the quality of the work. The Board is confident that the work of the year 1901 will be even more successful than that of 1900.

The Board of Directors has the honor to acknowledge the receipt of your report on the progress of the work during the year 1900. The report is most interesting and shows a steady and successful progress in all the lines of the work. The Board is pleased to note the increase in the number of members and the improvement in the quality of the work. The Board is confident that the work of the year 1901 will be even more successful than that of 1900.

The Board of Directors has the honor to acknowledge the receipt of your report on the progress of the work during the year 1900. The report is most interesting and shows a steady and successful progress in all the lines of the work. The Board is pleased to note the increase in the number of members and the improvement in the quality of the work. The Board is confident that the work of the year 1901 will be even more successful than that of 1900.

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Very respectfully,
The Board of Directors

1900

The Board of Directors has the honor to acknowledge the receipt of your report on the progress of the work during the year 1900. The report is most interesting and shows a steady and successful progress in all the lines of the work. The Board is pleased to note the increase in the number of members and the improvement in the quality of the work. The Board is confident that the work of the year 1901 will be even more successful than that of 1900.

GASOLINE TAX RATES BY STATES, AS OF JANUARY 1, 1928.

CONTRIBUTED BY THE DIVISION OF CONTROL.

(NOT FOR RELEASE)

ACCORDING TO DATA RECEIVED FROM STATE SOURCES, THE FOLLOWING COMPILATION HAS BEEN MADE OF THE GASOLINE TAX RATES, EFFECTIVE AS OF JANUARY 1, 1928. THE DATES REPRESENT THE TIME AT WHICH THESE RATES WENT INTO EFFECT.

5 - CENT TAX (5 STATES)

ARKANSAS - - - - 6- 9-27
FLORIDA - - - - 7- 1-27
KENTUCKY - - - - 2-21-26
NEW MEXICO - - - 3- 7-27
SOUTH CAROLINA - 3-23-25

4½ - CENT TAX (1 STATE)

VIRGINIA - - - - 3-10-26

4 - CENT TAX (12 STATES)

ALABAMA - - - - 1-25-27
ARIZONA - - - - 8-12-27
GEORGIA - - - - 9- 1-27
IDAHO - - - - 3- 1-27
MAINE - - - - 10-29-27
MARYLAND - - - - 4- 1-27
MISSISSIPPI - - - 4- 1-26
NEVADA - - - - 4- 1-25
NEW HAMPSHIRE - - 1- 1-28
NORTH CAROLINA - 2-21-25
SOUTH DAKOTA - - 7- 1-27
WEST VIRGINIA - - 7- 1-27

3½ - CENT TAX (1 STATE)

UTAH - - - - - - - 4- 1-25

3 - CENT TAX (15 STATES)

CALIFORNIA - - - - 7-29-27
COLORADO - - - - 3- 1-27
DELAWARE - - - - 3-24-27
INDIANA - - - - 4- 1-25
IOWA - - - - 7- 4-27
MICHIGAN - - - - 9- 4-27
MONTANA - - - - 1- 1-27
OHIO - - - - 5-25-27
OKLAHOMA - - - - 3-23-25
OREGON - - - - 3-24-23
PENNSYLVANIA - - - 7- 1-27
TENNESSEE - - - - 2- 9-25
TEXAS - - - - 3-13-27
VERMONT - - - - 3- 1-27
WYOMING - - - - 3- 1-27

2 - CENT TAX (12 STATES AND D. C.)

CONNECTICUT - - - - - 7- 1-25
ILLINOIS - - - - - 8- 1-27
KANSAS - - - - - 5- 1-25
LOUISIANA - - - - - 8- 1-24
MINNESOTA - - - - - 5- 1-25
MISSOURI - - - - - 1- 1-25
NEBRASKA - - - - - 4- 1-25
NEW JERSEY - - - - - 7- 1-27
NORTH DAKOTA - - - - - 7-30-28
RHODE ISLAND - - - - - 6- 1-27
WASHINGTON - - - - - 1- 1-24
WISCONSIN - - - - - 4- 1-25
DISTRICT OF COLUMBIA - 5-23-24

NO TAX (2 STATES)

MASSACHUSETTS
NEW YORK
HAWAII - (TERRITORY)



PAUL D. SARGENT - MAINE CHIEF HIGHWAY ENGINEER - TO RESIGN.

(NOT FOR RELEASE)

PAUL D. SARGENT, CHIEF ENGINEER OF THE MAINE STATE HIGHWAY COMMISSION HAS TENDERED HIS RESIGNATION TO TAKE EFFECT JANUARY 1, 1923. HE HAS ACCEPTED THE POSITION OF SALES MANAGER FOR THE NEW ENGLAND CULVERT COMPANY, OF PALMER, MASS., AND WILL RESIDE IN THAT CITY.

MR. SARGENT WAS BORN AT MACHIAS, IN WASHINGTON COUNTY, ME., AND IS A GRADUATE OF THE UNIVERSITY OF MAINE. IN 1905 HE RESIGNED THE POSITION OF REGISTRAR OF DEEDS OF WASHINGTON COUNTY TO BECOME THE STATE'S FIRST HIGHWAY COMMISSIONER. HE HELD THIS POSITION UNTIL 1911 WHEN HE ENTERED THE EMPLOY OF THIS BUREAU, THEN THE OFFICE OF PUBLIC ROADS, AS ASSISTANT DIRECTOR. HE RETURNED TO MAINE IN 1913 TO BECOME THE CHIEF ENGINEER UNDER A STATE HIGHWAY COMMISSION OF THREE, ESTABLISHED BY THE LEGISLATURE FOR THAT YEAR; A POSITION WHICH HE HAS HELD UP TO THE PRESENT TIME.

MR. SARGENT WAS ONE OF THE CHARTER MEMBERS OF THE AMERICAN ASSOCIATION OF STATE HIGHWAY OFFICIALS; AND IS A MEMBER OF THE AMERICAN SOCIETY FOR TESTING MATERIALS AND THE AMERICAN SOCIETY OF CIVIL ENGINEERS. A YEAR AGO HE WAS APPOINTED BY PRESIDENT COOLIDGE AS ONE OF THE REPRESENTATIVES OF THE UNITED STATES TO ATTEND THE PERMANENT INTERNATIONAL ASSOCIATION OF ROAD CONGRESSES HELD AT MILAN, ITALY.

