

CONTENTS

PAPERS

No.		PAGE
1167	EXPANSION OF PIPES.	
	By Ralph C. Taggart	1
	Discussion :	
	By WILLIAM D. ENNIS	31
	WILLIAM KENT	31
	RALPH C. TAGGART	32
1168	TESTS OF CREOSOTED TIMBER.	
	By W. B. Gregory	37
1169	SOME MOOTED QUESTIONS IN REINFORCED CONCRETE DESIGN.	
	By Edward Godfrey	54
	Discussion :	
	By JOSEPH WRIGHT	72
	S. BENT RUSSELL	73
	J. R. WORCESTER	74
	L. J. MENSCH	76
	WALTER W. CLIFFORD	80
	J. C. MEEM	82
	GEORGE H. MYERS	84
	EDWIN THACHER	85
	C. A. P. TURNER	87
	PAUL CHAPMAN	90
	E. P. GOODRICH	95
	ALBIN H. BEYER	102
	JOHN C. OSTRUP	105
	HARRY F. PORTER	111
	JOHN STEPHEN SEWELL	124
	SANFORD E. THOMPSON	128
	EDWARD GODFREY	133
1170	THE WATER SUPPLY OF THE EL PASO AND SOUTHWESTERN RAIL- WAY FROM CARRIZOZO TO SANTA ROSA, N. MEX.	
	By J. L. Campbell	164
	Discussion :	
	By G. E. P. SMITH	186
	KENNETH ALLEN	186
	J. L. CAMPBELL	188
1171	FEDERAL INVESTIGATIONS OF MINE ACCIDENTS, STRUCTURAL MA- TERIALS, AND FUELS.	
	By Herbert M. Wilson	190
	Discussion :	
	By KENNETH ALLEN	300
	HENRY KREISINGER	300
	WALTER O. SNELLING	307
	A. BARTOCCINI	312
	H. G. STOTT	313
	B. W. DUNN	314
	HERBERT M. WILSON	318

IV

No.		PAGE
1172	LOCOMOTIVE PERFORMANCE ON GRADES OF VARIOUS LENGTHS.	
	By Beverly S. Randolph.....	321
	Discussion :	
	By C. D. PURDON.....	329
	JOHN C. TRAUTWINE, JR.....	330
	BEVERLY S. RANDOLPH.....	333
1173	A CONCRETE WATER TOWER.	
	By A. Kempkey, Jr.....	334
	Discussion :	
	By MAURICE C. COUCHOT.....	348
	L. J. MENSCH.....	348
	A. H. MARKWART.....	349
	A. KEMPKEY, JR.....	350
1174	PRESSURE, RESISTANCE, AND STABILITY OF EARTH.	
	By J. C. Meem.....	352
	Discussion :	
	By T. KENNARD THOMSON.....	389
	CHARLES E. GREGORY.....	391
	FRANCIS W. PERRY.....	392
	E. P. GOODRICH.....	393
	FRANCIS L. PRUYN.....	398
	FRANK H. CARTER.....	399
	J. C. MEEM.....	401
1175	THE ULTIMATE LOAD ON PILE FOUNDATIONS: A STATIC THEORY.	
	By John H. Griffith.....	412
	Discussion :	
	By LUTHER WAGONER.....	442
	JOHN H. GRIFFITH.....	443
1176	REINFORCED CONCRETE PIER CONSTRUCTION.	
	By Eugene Klapp.....	448
	Discussion :	
	By WILLIAM ARTHUR PAYNE.....	455
	EUGENE KLAPP.....	455
1177	FINAL REPORT OF SPECIAL COMMITTEE ON RAIL SECTIONS.	456
1178	ADDRESS AT THE 42d ANNUAL CONVENTION, CHICAGO, ILLINOIS, JUNE 21st, 1910.	
	By John A. Bensel.....	464

MEMOIRS OF DECEASED MEMBERS

	PAGE
LINUS WEED BROWN, M. AM. SOC. C. E.....	470
CHARLES ALFRED HASBROUCK, M. AM. SOC. C. E.....	473
JOHN HENDERSON SAMPLE, M. AM. SOC. C. E.....	474
ALBERT MATHER SMITH, M. AM. SOC. C. E.....	476
JACOBUS VAN DER HOEK, M. AM. SOC. C. E.....	477
LUTHER ELMAN JOHNSON, JUN. AM. SOC. C. E.....	480