

NUMBERS ON MAP CORRESPOND TO PHOTOS



4. NORTH WABASH AVE. BRIDGE
(IRV KUPCINET BRIDGE)
(1930)



6. NORTH COLUMBUS DR. BRIDGE
(WILLIAM P. FAHEY BRIDGE)
(1982)



7. NORTH LAKE SHORE DR. BRIDGE
(FRANKLIN DELANO ROOSEVELT MEMORIAL BRIDGE)
(1937)



3. NORTH STATE ST. BRIDGE
(BATAAN CORREGIDOR MEMORIAL BRIDGE)
(1949)



5. NORTH MICHIGAN AVE. BRIDGE
(1920)



Ruins III



Riverwalk Gateway

[HTTP://CHICAGOLOOPBRIDGES.COM](http://chicagoloopbridges.com)

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EVOLUTION OF A SOLUTION

CHICAGO NEEDED A WAY TO GET ACROSS THE RIVER WITHOUT STOPPING BOAT TRAFFIC.

FIRST SOLUTION - CANOES AND FERRIES.

PROBLEM - COULDN'T CARRY ENOUGH LAND TRAFFIC. (1830's)

SECOND SOLUTION - PONTOON BRIDGES.

PROBLEM - TOO HARD TO MOVE AND EASILY RUINED IN FLOODING. (1840-1854)

THIRD SOLUTION - SWING BRIDGES (SEE ILLUSTRATION BELOW). PROBLEM - BRIDGES GOT IN THE WAY WHEN THE BOATS GREW BIGGER. (1854-1890)



1866 lithograph of the swing bridge at W. Lake (Library of Congress - P&P,LC-USZ62-23805)

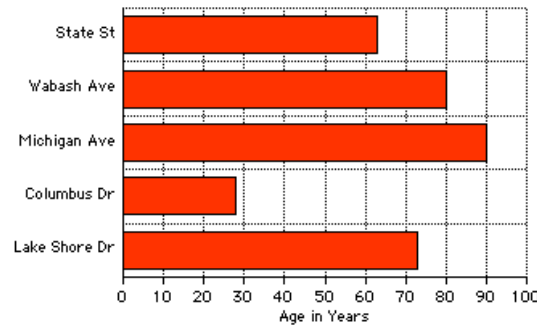
FINAL SOLUTION - FIXED TRUNNION, DOUBLE LEAF, BASCULE BRIDGE MODELED ON THE TOWER BRIDGE OF LONDON (BELOW). ALL OF THESE BRIDGES ARE "CHICAGO TYPE" BASCULES.



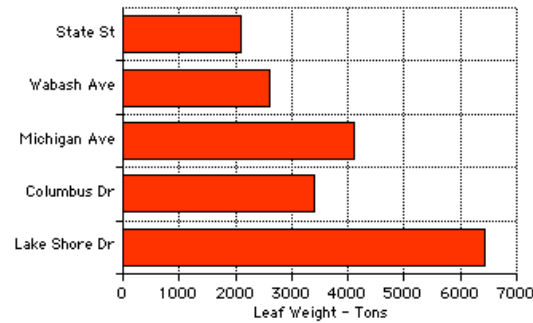
Tower Bridge of London bridge (from FreeFoto.com)

HOW THEY COMPARE

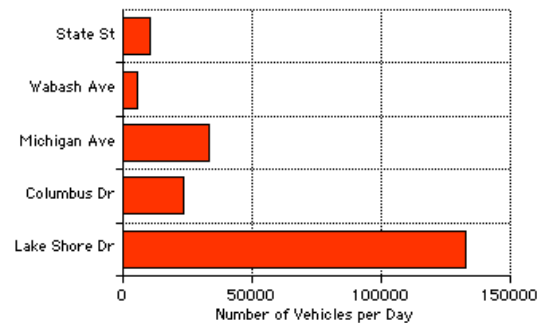
AGES



LEAF WEIGHTS



DAILY TRAFFIC

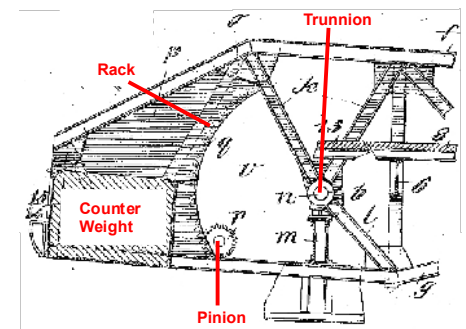


THE FIVE BRIDGE TOUR

HOW THEY WORK

THE GEAR TEETH OF THE PINION AND THE RACK ARE MESHED. THE BRIDGE LEAF IS SUPPORTED BY AND ROTATES ABOUT THE TRUNNION. AS THE PINION ROTATES IN THE RACK, THE BRIDGE LIFTS, AIDED BY THE COUNTER-WEIGHT (SEE DRAWING BELOW).

AS THE BRIDGE IS RAISED, THE COUNTER-WEIGHT LOWERS INTO THE TAIL PIT. THE PROCESS IS REVERSED WHEN THE BRIDGE IS LOWERED.



Rack and pinion drawing from von Babo's 1911 patent.