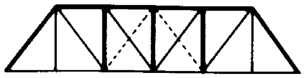
KING POST

(WOOD)

A TRADITIONAL TRUSS TYPE WITH ITS ORIGINS IN THE MIDDLE AGES.

LENGTH: 20-60 FEET
6-18 METERS

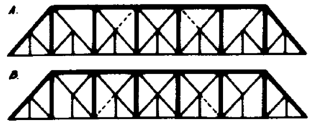


PRATT

1844 - 20TH CENTURY

DIAGONALS IN TENSION, VERTICALS IN COMPRESSION, (EXCEPT FOR HIP VERTICALS ADJACENT TO INCLINED END POSTS)

LENGTH: 30-250 FEET
9-75 METERS

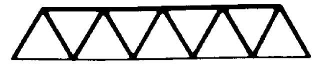


BALTIMORE (PETIT)

1871 - EARLY 20TH CENTURY

A. A PRATT WITH SUB-STRUTS
B. A PRATT WITH SUB-TIES

LENGTH: 250-600 FEET
75-180 METERS



WARREN

1848 - 20TH CENTURY

TRIANGULAR IN OUTLINE. THE DIAGONALS CARRY BOTH COMPRESSIVE AND TENSILE FORCES. A TRUE WARREN TRUSS HAS EQUILATERAL TRIANGLES.

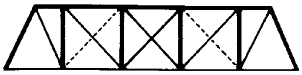
LENGTH: 50-400 FEET
15-120 METERS

QUEEN POST

(WOOD)

A LENGTHENED VERSION OF THE KING POST.

LENGTH: 20-80 FEET
6-24 METERS

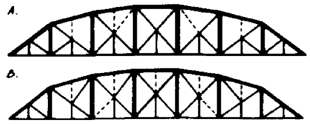


PRATT HALF-HIP

LATE 19TH-EARLY 20TH CENTURY

A PRATT WITH INCLINED END POSTS THAT DO NOT HORIZONTALLY EXTEND THE LENGTH OF A FULL PANEL.

LENGTH: 30-150 FEET
9-45 METERS



PENNSYLVANIA (PETIT)

1875 - EARLY 20TH CENTURY

A. A PARKER WITH SUB-STRUTS.
B. A PARKER WITH SUB-TIES.

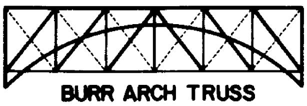
LENGTH: 250-600 FEET
75-180 METERS

WARREN

WITH VERTICALS
MID 19TH-20TH CENTURY

DIAGONALS CARRY BOTH COMPRESSIVE AND TENSILE FORCES. VERTICALS SERVE AS BRACING FOR TRIANGULAR WEB SYSTEM.

LENGTH: 50-400 FEET
15-120 METERS



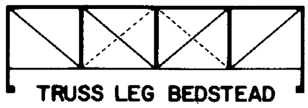
BURR ARCH TRUSS

1804 - LATE 19TH CENTURY

(WOOD)

COMBINATION OF A WOODEN ARCH WITH A MULTIPLE KING POST. (ARCH ALSO COMBINED WITH LATER WOODEN TRUSSES).

LENGTH: 50-175 FEET
15-50 METERS

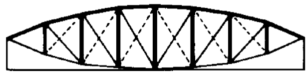


TRUSS LEG BEDSTEAD

LATE 19TH-EARLY 20TH CENTURY

A PRATT WITH VERTICAL END POSTS IMBEDDED IN THEIR FOUNDATIONS.

LENGTH: 30-100 FEET
9-30 METERS

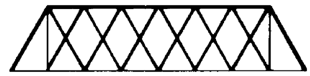


LENTICULAR (PARABOLIC)

1878 - EARLY 20TH CENTURY

A PRATT WITH BOTH TOP AND BOTTOM CHORDS PARABOLICLY CURVED OVER THEIR ENTIRE LENGTH.

LENGTH: 50-360 FEET
5-110 METERS

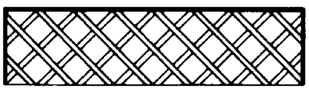


DOUBLE INTERSECTION WARREN

(LATTICE)
MID 19TH - 20TH CENTURY

STRUCTURE IS INDETERMINATE. MEMBERS ACT IN BOTH COMPRESSION AND TENSION. TWO TRIANGULAR WEB SYSTEMS ARE SUPERIMPOSED UPON EACH OTHER WITH OR WITHOUT VERTICALS.

LENGTH: 75-400 FEET
23-120 METERS



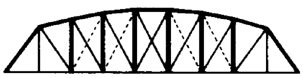
TOWN LATTICE

1820 - LATE 19TH CENTURY

(WOOD)

A SYSTEM OF WOODEN DIAGONALS WITH NO VERTICALS. MEMBERS TAKE BOTH COMPRESSION AND TENSION.

LENGTH: 50-220 FEET
15-66 METERS

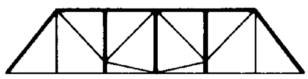


PARKER

MID-LATE 19TH - 20TH CENTURY

A PRATT WITH A POLYGONAL TOP CHORD

LENGTH: 40-250 FEET
12-75 METERS

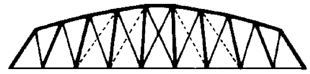


GREINER

1894 - EARLY 20TH CENTURY

PRATT TRUSS WITH THE DIAGONALS REPLACED BY AN INVERTED BOWSTRING TRUSS

LENGTH: 75-250 FEET
23-75 METERS

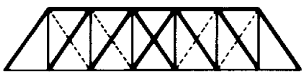


PEGRAM

1887 - EARLY 20TH CENTURY

A HYBRID BETWEEN THE WARREN AND PARKER TRUSSES, UPPER CHORDS ARE ALL OF EQUAL LENGTH.

LENGTH: 150-650 FEET
45-195 METERS



HOWE

1840 - 20TH CENTURY

(WOOD, VERTICALS OF METAL)

DIAGONALS IN COMPRESSION, VERTICALS IN TENSION.

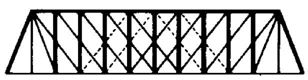
LENGTH: 30-150 FEET
9-45 METERS

CAMELBACK

LATE 19TH - 20TH CENTURY

A PARKER WITH A POLYGONAL TOP CHORD OF EXACTLY FIVE SLOPES.

LENGTH: 100-300 FEET
30-90 METERS



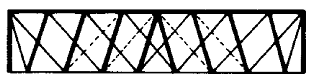
DOUBLE INTERSECTION PRATT

1847 - 20TH CENTURY

(WHIPPLE, WHIPPLE-MURPHY, LINVILLE)

AN INCLINED END POST PRATT WITH DIAGONALS THAT EXTEND ACROSS TWO PANELS.

LENGTH: 70-300 FEET
21-90 METERS

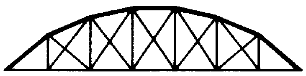


POST

1865 - LATE 19TH CENTURY

A HYBRID BETWEEN THE WARREN AND THE DOUBLE INTERSECTION PRATT.

LENGTH: 100-300 FEET
30-90 METERS

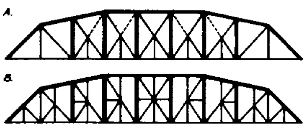


BOWSTRING ARCH-TRUSS

1840 - LATE 19TH CENTURY

A TIED ARCH WITH THE DIAGONALS SERVING AS BRACING AND THE VERTICALS SUPPORTING THE DECK.

LENGTH: 50-130 FEET
15-40 METERS

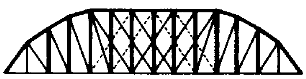


CAMELBACK

WITH SUBDIVIDED PANELS
LATE 19TH-EARLY 20TH CENTURY

A. A PENNSYLVANIA TRUSS WITH A POLYGONAL TOP CHORD OF EXACTLY FIVE SLOPES
B. SAME AS A. WITH HORIZONTAL STRUTS.

LENGTH: 100-500 FEET
30-150 METERS

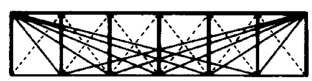


SCHWEDLER

LATE 19TH CENTURY

A DOUBLE INTERSECTION PRATT POSITIONED IN THE CENTER OF A PARKER.

LENGTH: 100-300 FEET
30-90 METERS



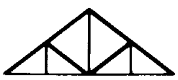
BOLLMAN

1852 - MID-LATE 19TH CENTURY

(RARE)

VERTICALS IN COMPRESSION, DIAGONALS IN TENSION. DIAGONALS RUN FROM END POSTS TO EVERY PANEL POINT.

LENGTH: 75-100 FEET
23-30 METERS

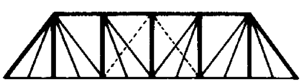


WADDELL "A" TRUSS

LATE 19TH - EARLY 20TH CENTURY

EXPANDED VERSION OF THE KING POST TRUSS. USUALLY MADE OF METAL

LENGTH: 25-75 FEET
8-23 METERS

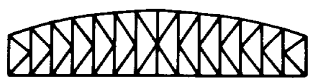


KELLOGG

LATE 19TH CENTURY

A VARIATION ON THE PRATT WITH ADDITIONAL DIAGONALS RUNNING FROM UPPER CHORD PANEL POINTS TO THE CENTER OF THE LOWER CHORDS.

LENGTH: 75-150 FEET
23-30 METERS

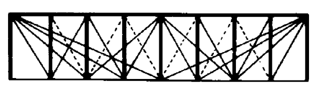


K-TRUSS

EARLY 20TH CENTURY

SO CALLED BECAUSE OF THE DISTINCTIVE OUTLINE OF THE STRUCTURAL MEMBERS.

LENGTH: 200-800 FEET
60-240 METERS



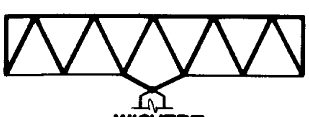
FINK

1851 - MID - LATE 19TH CENTURY

(RARE)

VERTICALS IN COMPRESSION, DIAGONALS IN TENSION, LONGEST DIAGONALS RUN FROM END POSTS TO CENTER PANEL POINTS.

LENGTH: 75-100 FEET
23-45 METERS



WICHERT

1932 - MID-LATE 20TH CENTURY

IDENTIFIED BY A CHARACTERISTIC PIN-CONNECTED SUPPORT SYSTEM OVER THE PIERS. TRUSS IS CONTINUOUS OVER PIERS.

LENGTH: 400-1000 FEET
122-305 METERS

TRUSSES

A STUDY BY THE

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STEARNS

1890 - EARLY 20TH CENTURY

SIMPLIFICATION OF FINK TRUSS WITH VERTICALS OMITTED AT ALTERNATE PANEL POINTS.

LENGTH: 50-200 FEET
15-60 METERS

OFFICE OF ARCHEOLOGY AND HISTORIC PRESERVATION
TECHNICAL INFORMATION PROJECT
UNDER DIRECTION OF THE NATIONAL PARK SERVICE, UNITED STATES DEPARTMENT OF THE INTERIOR

TRUSS IDENTIFICATION: BRIDGE TYPES

RECORD NO. HAER TI-1

HISTORIC AMERICAN ENGINEERING RECORD
SHEET 2 OF 2 SHEETS