New cantonment program hinges on passage of extended service bill

With advanced planning already underway and 23 sites selected, an early start on the new program will be possible when funds are made available

With Congressional approval of the plan to keep the Army selectees in service for another 18 months, which is expected to be granted this week, the start of another cantonment construction program to increase housing for additional draftees will no doubt be underway in the very near future. At present one and one-half million men are being housed. This number can be increased by adding to the regular army and by calling up sufficient men under the Selective Service Act to increase those troops from 650,000 to the 900,000 men now authorized. Both of these actions are expected. In addition, it is highly possible that Congress may remove the 900,000 limit and may permit still more troops to be trained under the Selective Service Act.

Work to date on the new program includes approval of 23 camp sites and award of architectural-engineering contracts for 11 of the projects. This work is being done under a special $15,000,000 appropriation.

A list of firms holding contracts for the planning work for nine camps was given in *ENR* May 29, 1941, p. 849. On July 16 the War Department increased the number of firms to eleven by awarding an architectural-engineer contract to Freeze & Nichols, Ft. Worth, Tex., for a camp at Bastrop, Tex., and a similar contract to Fisher, Fisher & Hubbell, Denver, Colo., and Paulette & Wilson, Topeka, Kan., for a cantonment at Colorado Springs, Colo.

The remaining twelve sites approved are located as follows: Corvallis, Ore.; Durham, N. C.; Marysville, Calif.; Morganfield, Ky.; Camp McCoy, Wis. (expansion of existing reservation); Ozark-Enterprise, Ala. area; Paris, Texas; West Yellowstone, Mont.; Hopkinsville, Ky.-Clarksville, Tenn area; Waco, Tex.; Fort Huachuca, Ariz.; and Venice, Fla.

The average camp is planned to accommodate roughly 30,000 troops, and the average cost is put at $23,000,000. Specifications call for the standard type construction, similar to that used in last winter's cantonment program. The work may be done by general contract or on a cost-plus-fixed-fee basis. In either case, a much more satisfactory set-up as to payment can be expected because of the advance planning. The firm holding the planning contract for a camp is expected to receive $50,000 for that work alone and then an additional $25,000 where supervision of construction is also handled.

• • •

Structural steel orders double 1940 figures

The American Institute of Steel Construction reports that structural steel orders booked in June were 13 percent ahead of the monthly average for the entire first half of 1941, and new orders received in the first half of this year were more than double those of the same period, in 1940.

The first six months' orders in 1941 totaled 1,298,432 tons compared with 619,231 in the first half of 1940. Shipments for the first six months of this year totaled 1,055,946 tons compared with 655,012 in the first half of 1940.

Steel superstructure goes up on St. Georges Bridge

In place of the vertical lift highway bridge at St. Georges, Del., over the Chesapeake and Delaware Canal which was demolished in a ship collision on Jan. 10, 1939, a new high-level steel tied-arch four-lane bridge is now under construction at a site about 600 ft. west of the original location crossing. All the work on the substructure of the span, contract held by Penker Construction Co., Cincinnati, Ohio, has now been completed.

Rapid progress is being made on the approach superstructure with better than two-thirds, of the steelwork completed. Only one span remains to be joined with steel on the south side and only two spans to be joined on the north side.

The main tied-arch span will be 540-ft. long. A connecting link with the DuPont Highway, the arch, giving 135-ft. shipping clearance, is flanked on each end by 1,800 ft. beam and girder approaches. There will be two 23-ft. roadways divided by a 2-ft. curb strip, and one 4-ft. sidewalk. Work was begun on July 1, 1940, and with construction about 70 percent, it is expected that the bridge will be opened to traffic in December.

The bridge is being built for the Corps of Engineers with the superstructure contract held by Phoenix Bridge Co. with Harry Archinal, superintendent. Approach contractors are George & Lynch, Wilmington, Del. Robert Fox, was substructure engineer on the job for Penker Construction Co. Parsons, Klapp, Brinckerhoff and Douglas, New York City, are consulting engineers, and William Bruce is acting as resident engineer. H. N. Crichton is resident engineer for the government.

Estimated cost, including cost of right of way by State of Delaware is $2,747,108.43.

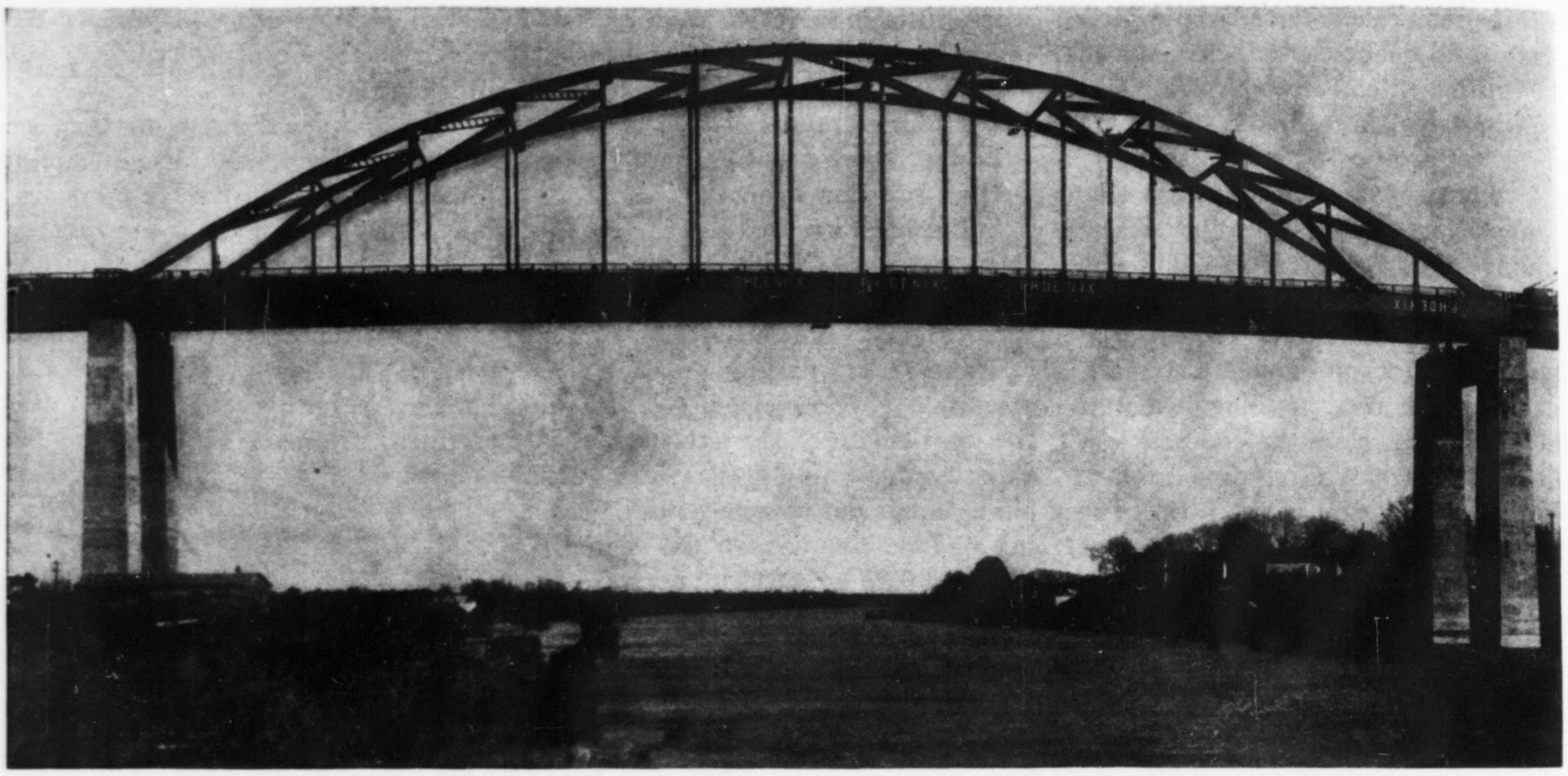


Fig. 1. A type of tied arch new to America spans the Chesapeake and Delaware Canal.

Tie Dominates Rib in St. Georges Arch

Maurice N. Quade
Structural Engineer with
Parsons, Klapp, Brinckerhoff & Douglas, Engineers
New York, N. Y.

***Contents in Brief**—A bridge type new to American practice is introduced by the new crossing of the Chesapeake and Delaware Canal at St. Georges, Del. It is a 540-ft.-span tied arch, but in contrast to usual practice the tie is the heavy member and the arch rib the light one. Of box section 108 in. deep, the tie resists most of the live load moment and serves as a stiffening girder for the arch rib. Advantages of this type of span appear in simpler details, easier erection, and in a possible small saving in steel.*

THE NEW HIGHWAY BRIDGE that carries the DuPont Highway over the Chesapeake and Delaware Canal at St. Georges, Del., fourteen miles south of Wilmington, has a main span consisting of a 540-ft. tied arch of unusual design, its claim to distinction resting in the fact that the bending moments caused by partial live loads are resisted principally by the tension tie rather than the compression rib. Contrary to usual tied arch designs, the tie consists of a deep box girder having approximately thirteen times the moment of inertia of the rib, which is shallow and corresponds quite closely to the proportions of a conventional top chord of a simple truss span of the same length and loading. In its action as a stiffening member, the tie girder acts for the arch rib in much the same manner as a stiffening girder or truss acts in providing rigidity for a suspension bridge. Although there appears to be a European precedent, it is believed that the St. Georges Bridge introduces a new type of bridge structure to American practice.

The bridge, which also includes 3,669 ft. of plate girder spans about equally divided between the two approaches, replaces a lift span that was wrecked by a freight steamer. (*ENR*, Jan. 12, 1939). But whereas the lift span was in the town of St. Georges, the new bridge is about 600 ft. west and outside the town where right-of-way for the long approaches is less expensive and where the alignment is better adapted to that of the dual highway on either side of the canal. The four lanes of traffic, which the new bridge provides, remove a bottleneck in this dual highway that was caused by the 24-ft. roadway of the lift bridge. Delays to highway traffic and canal shipping due to the lift bridge are also eliminated by the 540-ft. high level arch span, which furnishes a 135-ft. vertical clearance over a 400-ft. width.

Selection of a single high level span for the canal crossing was based on careful cost considerations, which revealed the following relative capitalized total costs of construction, operation and property acquisition:

Vertical life bridge	0.93
Tied arch or simple span	1.00
Cantilever	1.11
Self-anchored suspension	1.11
Tunnel	3.62

The desire for uninterrupted traffic flow ruled out the vertical lift, while the tied arch was preferred over the simple truss on the basis of appearance.

The preliminary studies led to the

adoption of a tied-arch main span 539 ft. 4½ in. c. to c. of bearings with 15 panels 35 ft. 11½ in. in length. The arch ribs are straight between panel points, which lie on a parabola having a rise of 100 ft. The tie girders are slightly curved and conform to the vertical curve in the roadway, which is a parabola between tangents to the 5-percent approach grades at the ends of the span. The effective depth at the center is 92.85 ft.

A cross-section of the deck is shown in Fig. 3. It will be noted that the stringers are located at approximately the level of the top flange of the deep silicon steel tie girder. In most of the panels, this flange is subject to a wide variation in unit stress due to direct load in combination with live load so placed as to produce maximum negative or maximum positive bending moment in the tie girder. The greatest range of stress is from a minimum of less than 3 kips per sq. in. to the maximum allowable stress of 24 kips per sq. in. in tension on the net section of the member.

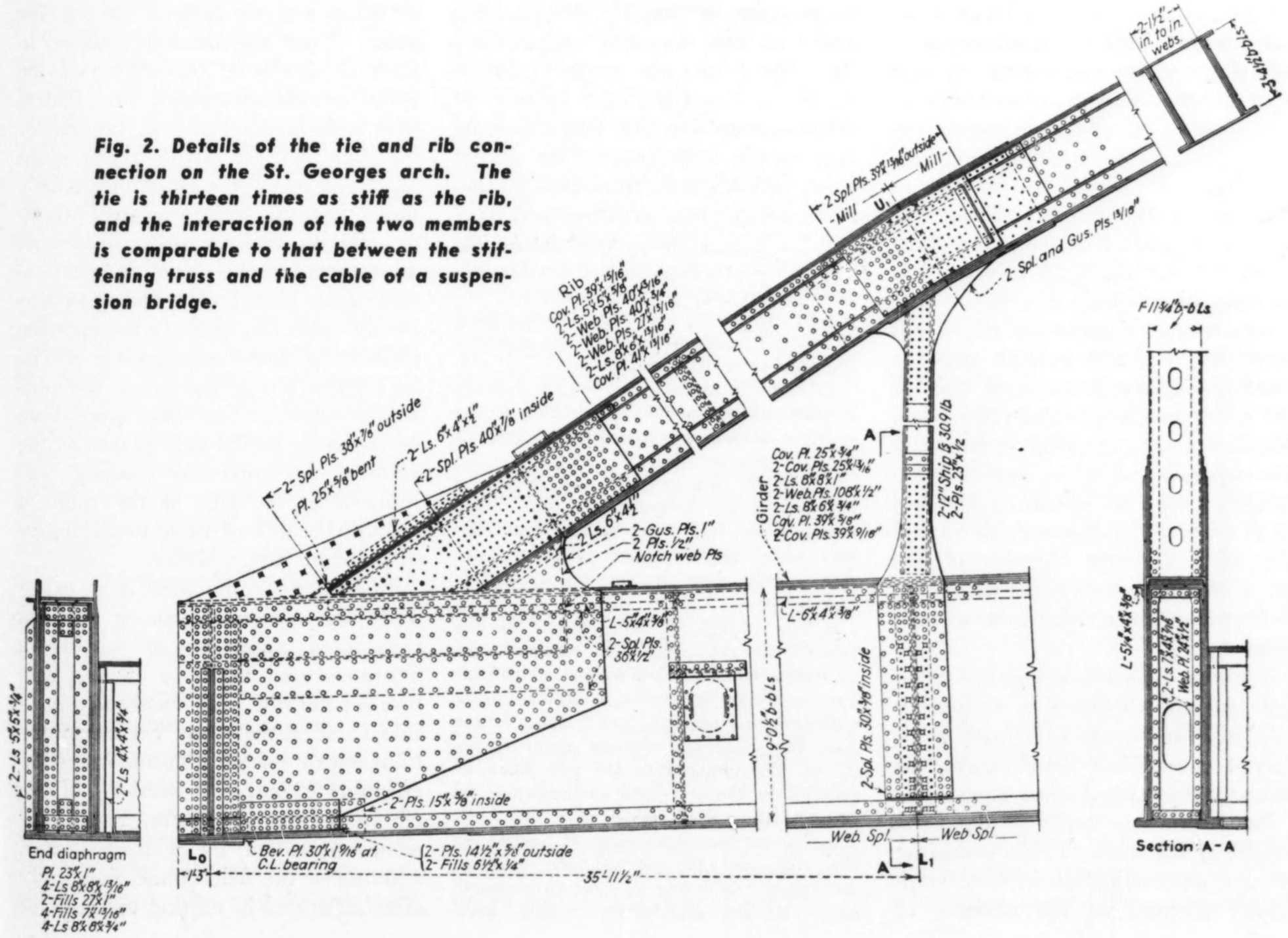
To avoid large participation stresses in the floor system and accumulative lateral distortion of the floorbeams, expansion joints are used at each intermediate panel point. The slab joint consists of a copper-flashed, poured rubber joint. The stringers on one side of each floorbeam slide on bronze bearing plates having bronze keys to prevent lateral motion. The stringers in the adjacent panel are riveted to the floorbeam flange in order that they may, in combination with the deck slab, brace the compression flange of the floorbeam. A line of rolled channel diaphragms near the ends of both the expansion and fixed stringers prevents rotation of the ends of the stringers. The deck is stiffened by a similar line of diaphragms at mid panel.

The arch rib is a box section of plates and angles with web plates 42 in. deep and coverplates top and bottom. Hangers consist of rolled channels having coverplates on both sides. The depths of the channels vary in accordance with the lengths of the hangers to avoid excessive slenderness and flexibility.

An important esthetic consideration, which in part determined the selection of a tied arch, is the effective blending of the main span with the girder approach spans. It was found that if the tie girder could be made the same depth as the approach girders, the dominating line of the bridge could be continued across the main span without interruption; that the unity of the construction could be further enhanced by using a relatively thin rib, which would have the appearance of merely aiding the girder to cross the canal in one span. Structurally, the rib functions in exactly that manner. The deep tie girder is so stiff that the rib resists in bending only 7 percent of the bending moment.

The tie girder is a double web box section 108½ in. deep b. to b. of angles. The bottom flange angles are turned out and the top angles turned in, with coverplates on both flanges. Since the web plates are always stressed to at least a small tension, the usual limiting thickness for ordinary plate girder webs did not need to be considered. The largest members are located near the quarterpoints and have a gross area of 299 sq. in. and

Fig. 2. Details of the tie and rib connection on the St. Georges arch. The tie is thirteen times as stiff as the rib, and the interaction of the two members is comparable to that between the stiffening truss and the cable of a suspension bridge.



a net section modulus of 9,640 in.³

The lateral bracing for the rib is a K system. At each portal the end transverse strut is omitted and, to insure proper stiffness and equal division of transverse shear in the end panels of the rib, a longitudinal strut at the center line was added to each K panel adjacent to the portals. The bottom lateral bracing is placed at the bottom of the tie girders and is also a K system. Details and sizes of members are given on Fig. 3.

Access to the truss members is provided by manholes in the rib and tie girder and handholes in the hangers. The manholes in the rib are in the bottom coverplate and are spaced on 5-ft. centers. One manhole having a removable cover is provided near the center of each panel of the tie girder, at the center of the inside web plate to avoid large holes in the heavy flanges. Additional manholes are proprovided in the diaphragms at the panel points and at mid-panel so that once the tie girder is entered the entire length of the girder is accessible. The girders can also be entered at the ends of the span from walkway extensions to the platforms below the deck, which are provided for splicing telephone and power cables carried on the bridge. The intermediate manholes were added for convenience in painting and for ventilation. Special shop paint was used on the inside of the girders to eliminate poisonous fumes from paint burned during field riveting.

At the north end of the bridge the span is supported by cast steel fixed shoes of conventional design. Expansion shoes with a nest of segmental rollers support the south end. Provision is made at this pier for jacking diaphragms on each side of the main diaphragm above the shoe. The entire span can thus be raised at the expansion end to make adjustments or even replacements of parts of the expansion shoes if this should ever be necessary. Because of the heavy tie girders, the provision for jacking has been added at a very small cost.

The ribs, tie girders, and the short, end hangers (because of secondary bending) are made of silicon steel. Except for a few detail parts, all other members are carbon steel.

No effort was made to limit the weight of the deck. There would be little, if any, reduction in cost, principally because of the absence of

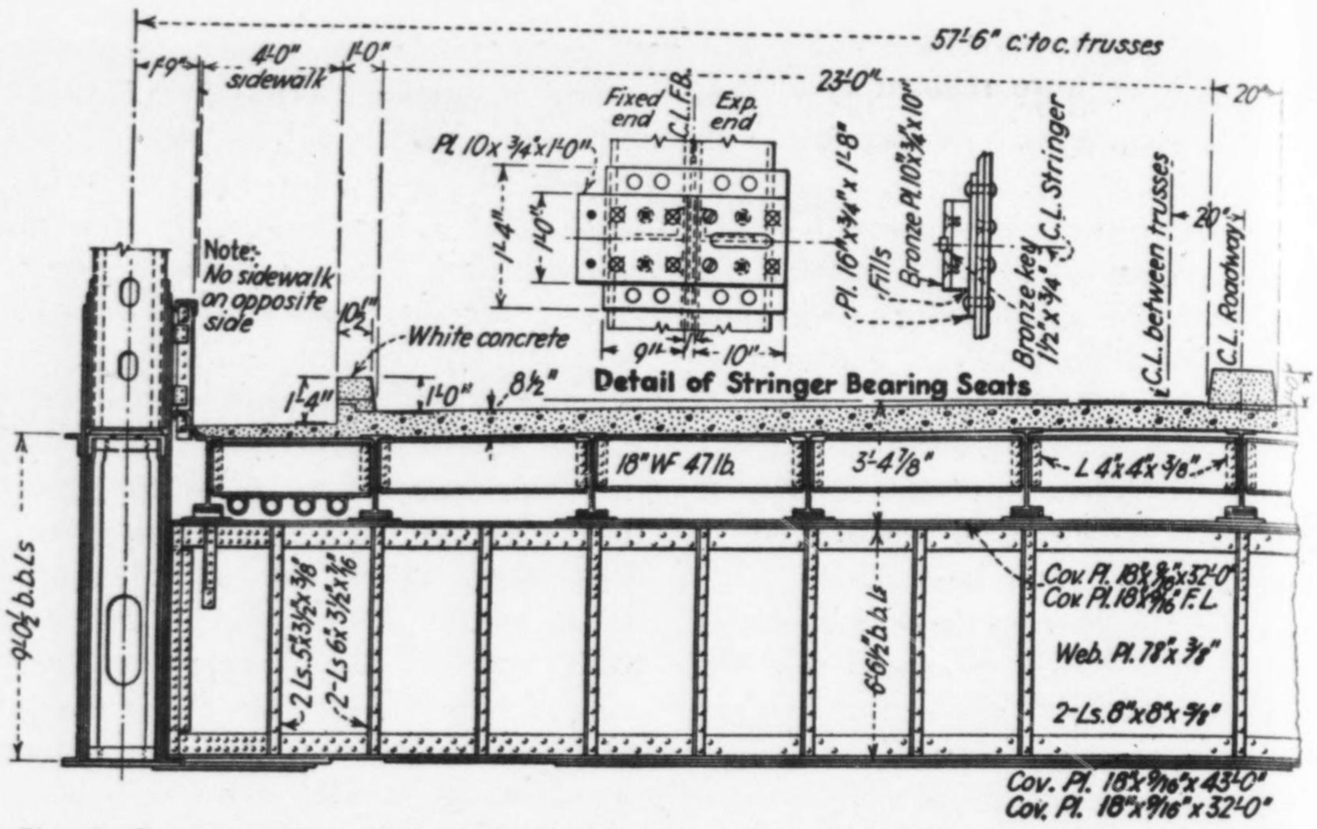


Fig. 3. Cross-section of deck of St. Georges tied arch. The solid concrete deck contributes desirable stiffness. One end of each stringer is on an expansion bearing to avoid floorbeam distortion.

bending moments resulting from uniform load throughout the length of the span. At the same cost, the heavier dead load is preferable because of greater stiffness.

Design of the arch span

The arch truss is statically determinate for external reaction but is highly indeterminate internally. In the first analysis certain assumptions were made to simplify the problem and, as the members approached their final sections as a result of successive analyses, the effects of those assumptions that might have an appreciable influence on the design were investigated. For the preliminary design it was assumed that:

1. The hangers, being long and slender, do not resist enough of the bending moment to have an appreciable effect on the design of the rib and tie. A comparison of the I/l ratios of the members confirms the validity of this assumption.

2. The rib carries no bending moment. In the subsequent and final designs the bending moment was proportioned between the rib and the tie.

3. The rib is a parabola that remains a parabola in the deflected structure. Since the truss was fully cambered for dead load and since the live load deflections are small, little error is introduced by this assumption.

4. The effects of deformations of the hangers are negligible. The hangers were shortened for dead load tension. Live load stresses are small because, to obtain proper stiffness, the hangers were made larger than the minimum sections required for stress. The elongations are very small in relation to the live load deformations in the ribs and tie girders.

5. The area and moment of inertia of the ribs and tie girders are uniform throughout. This was, of course, corrected after the first preliminary designs were completed, and the variation in sections was taken into account.

Due to rib shortening and the lengthening of the tie girder under stress, there is a moment in each member when the structure is loaded, even with uniform load throughout its entire length. To correct this approximately, a moment of opposite sign can be applied to the ribs and tie girders at the time of closing the span. A pin was therefore placed in each tie girder at the center of the span far enough above the neutral axis to induce a bending moment of 500 kip-ft. at the center of the span. Since the span was closed with little more than the weight of steel structure upon it, this moment included an allowance for the effect of the concrete deck placed after the span was swung and riveted, including the riveting of the flange splices in the tie girders above and below the pins at the center. The pins were connected only to the web plates of the girders. No corrective moment was induced in the ribs at the time of closure because of their small degree of moment participation.

Inasmuch as the arch acts externally like a simple span, it was not considered necessary to employ a field-measured keystone closing section for the ribs, which were carefully fabricated in the shop. The specifications required, as a minimum, shop assembly of adjacent sections of the rib and of the tie girders, with alignment controlled by a transit, and reaming of the field connections only after all errors in milling the ends of

the ribs were corrected. The hanger connections were reamed to a metal template.

Approach spans

At the lower end of each approach there are several stringer spans 54 ft. long. All other approach spans are deck plate girders varying from 80 to 130 ft. in length. The girders in the 130-ft. spans are silicon steel; all other members are carbon steel.

All spans are simple except for a two-span continuous crossing of a road intersection on the north side. The center pier of the continuous spans is skewed, and the spans are unequal in length. Expansion joints are provided at alternate piers, where the girder spans rest on cast steel rocker shoes. Expansion bearings at the stringer spans consist of bronze bearing plates on which the stringers slide.

The concrete deck is identical with that on the main span. The girders are spaced 42 ft. c. to c. with the sidewalk and curb cantilevered beyond the girders on the east side and a 5-ft. width of the roadway plus the curb cantilevered on the west side. All of the fascia stringers and brackets are 24-ft. wide-flange beams and thus present a neat, uniform appearance.

Floorbeams on the girder spans are plate girders 5 ft. deep except at the ends of the spans where the end floorbeams are close together. Here one floorbeam is 5 ft. deep while the other, on the adjacent span, is 4 ft. deep to offset the bottom flanges vertically and provide easier access between floorbeams for painting.

On each approach, stairs are provided for pedestrian access between the bridge deck and the street nearest the canal. The stairs are approximately 50 ft. high. The upper flights above the pier tops are steel. The lower flights wind around one of the pier shafts and consist of a continuous spiral concrete cantilever slab the upper surface of which conforms to the arrangement of steps and platforms.

Substructure

The substructure consists of 41 piers and 2 abutments, all of which are founded on piles. Along the higher ground toward the ends of the approaches, cast-in-place concrete piles are used. Nearer the canal, groundwater near the surface permitted timber piles, and the two main piers are founded on steel H-piles. The piers supporting the truss and girder spans are of open construction and have twin shafts connected at the top with a wide, deep strut, the dimensions of which vary in accordance with the height of the pier. The struts at the main piers are 8½ ft. wide and 15 ft. deep. The clear width between shafts is 37 ft.

The depth of the main piers has been fixed at a depth of 50 ft. below mean low water. This is the highest elevation that can be considered satisfactory for the maximum channel that could ultimately be constructed under the main span. The steel sheetpiling of the cofferdam, within which each pier was constructed, was driven 10 ft. below the base, the sheets were cut off at the top of the base, and the lower portions left in place.

Similar protection was provided for the adjacent approach piers. Thus, at a moderate increase in cost, the piers have been adequately protected against dredging a possible future canal prism 42 ft. deep and 500 ft. wide on the bottom.

At the north pier both the main span and the 130-ft. approach span are fixed, but at the south pier both spans rest on expansion shoes, a cast steel, toothed, cantilever type of expansion joint being provided for the deck. Because of the overturning effect of a longitudinal load of 346 kips (estimated as 560 and 350 lb. per ft. of bridge for the main span and approach span respectively) applied horizontally through the fixed shoe pins, two additional transverse rows of steel H-piles were required at the north pier. A similar distinction between fixed and expansion piers was made in the design of the approach piers. The outer rows of piles in the main pier bases are battered outward for increased stability, particularly during future dredging when unbalanced earth pressures may occur temporarily.

In resisting longitudinal loads, the piers act as vertical cantilevers and are reinforced accordingly. In resisting transverse loads, the horizontal struts act with the shafts as a framed bent, and the pier as a whole has been reinforced in accordance with the bending moments determined at all points in the frame. Each shaft of the two main piers has a single base; the piers supporting the approach girders have separated bases, one under each of the twin shafts.

The tallest of the approach pier shafts is 125.5 ft. above the top of the base. Wherever this height exceeded 75 ft. a transverse strut was added at the bottom of the shafts, which is generally below ground. This strut has been added because the pier bases would otherwise be excessively wide due to large moments from transverse loads. The struts have been proportioned with regard to the interaction between the bottom strut and the bases, so that when the strut is fully stressed to allowable unit stresses the maximum deflection of the outer rows of piles due to rotation of the ends of the strut does not exceed ⅛ in., which is well within the limit of elastic action of the pile.

In piers that have no bottom strut, points of contraflexure were assumed at about the lower third point of the shafts on the basis of a detailed study of a typical pier.

The maximum unit stress used for concrete subjected to combined bending and direct stress, with wind included, is 700 psi. This intensity occurs at the tops of the shafts where transverse wind moments are large. At the bottom the shafts are designed for 450 psi. or less, with the additional requirement that the bending stress from all sources shall not exceed the direct stress by more than 100 psi. when expressed in terms of a homogeneous material. Sections that are critical for diagonal tension are proportioned for a shear of 50 psi. or less to avoid web reinforcement. The maximum unit stresses in the reinforcing steel are 18,000 psi. for dead plus live load, or for dead plus wind load, and 22,500 psi. for combined dead plus live plus wind loads.

At the suggestion of the architect, the tops of the main piers have been completely enclosed up to level of the deck with corrugated asbestos-cement board, which is attached to light steel framing anchored to the pier top. Two ornamental pylons are placed on the ends of each pier enclosure outside of the railing at the corners of the main span. The pylons are star-shaped in section with a slender finial at the top, which is 22 ft. above the roadway. They are made of aluminum and glass, and are illuminated by light strips 12 ft. high.

Advantages of this type of arch

It is believed that this type of through tied arch has the following advantages over the conventional

heavy rib type, in addition to its superior appearance in many locations:

1. The erection will generally require less falsework because the tie girders will support erection equipment over longer spans.

2. The demands on erection equipment are reduced by reason of the fact that the heaviest members are lifted only to the level of the deck rather than to the top of the span. This may in some designs eliminate the necessity of special creeper travelers moving along the rib and permit the use of more common equipment operating from the deck.

3. Although no direct comparison in weight has been made as yet, it can be pointed out that some economy may result from the shorter length of the heavy tie as compared to the longer length of a heavy rib. This saving is partly offset by heavier splices.

4. Since the tie girder will always have little, if any, compression, the ends of the members at splice points need not be milled. All milling of the splices in the curved rib is therefore confined to lighter, smaller members.

5. The connections at the ends of the span appear to be simplified when the deep girders are horizontal or nearly so, and the transfer of the vertical shear into the shoes is readily accomplished by detail parts that are easier to fabricate. The erection in this panel is much less difficult because a milled splice for the first rib member can generally be located above the tie girder so that the first section of the rib can be erected after the girder has been placed on the shoe and the first hanger erected. No temporary support for a heavy, inclined section of rib is required.

Personnel

The bridge was built by the United States government through the agency of the Corps of Engineers, U. S. Army, with Lt. Col. H. B. Vaughan, District Engineer of the U. S. Engineer Office at Philadelphia, as the contracting officer. Preliminary work on the project was carried out under the direction of Lt. Col. C. W. Burlin, District Engineer until January, 1940. General supervision of the field work for the Corps was under H. N. Crichton, principal engineer of the suboffice at Chesapeake City, Md.

Plans and specifications for the complete project and a preliminary report in 1939, were prepared by Parsons, Klapp, Brinckerhoff & Douglas, Engineers, New York, under the supervision of E. L. Macdonald, partner, the writer being in charge of the engineering work. This firm also supervised the field work, with W. H. Bruce as its resident engineer. Shortridge Hardesty was associated in the engineering design, and Aymar Embury II served as architectural consultant.

The substructure was built by the Penker Construction Co., Cincinnati, Ohio, and the superstructure by the Phoenix Bridge Co., Phoenixville, Pennsylvania, with the Corbetta Construction Co., Inc., of New York, as subcontractors for the concrete deck and J. R. Umberger Co., Lebanon, Pa., as subcontractor for the electrical work. The approach roadways were built by George and Lynch, Wilmington, Del.

How St. Georges Tied Arch Was Erected

William H. Bruce and **Charles U. Kring**
Resident Engineer — Assistant Resident Engineer
Parsons, Klapp, Brinckeroff & Douglas, Engineers, New York, N. Y.

***Contents in Brief**—The heavy tie girders of the St. Georges steel arch simplified the erection problem. Different cantilever erection schemes, one involving a tie-back and the other temporary diagonal web members, were used for the two ends of the span, after which the center portion of tie girder served as a suspended span on which hangers and arch ribs were erected.*

THE ERECTION of the 540-ft. tied arch of the St. Georges Bridge over the Chesapeake and Delaware Canal was accomplished by an unusual combination of conventional methods of erection. The War Department prohibited the use of falsework within the present 250-ft. width of channel, and since the two piers were at different distances from the channel (Fig. 2) it was necessary to use a different erection procedure for the two halves of the span.

One of the two major erection problems was to determine the interaction of the two halves so that the amount of temporary erection steel could be economically yet safely designed. The second problem was to obtain finally a structure conforming to the correct geometrical outline and free of secondary moments in the truss members under full dead load.

An A-frame traveler, weighing 150 tons, which had previously erected the 1,800-ft. north approach, erected the north half of the main span to midspan. A similar traveler, which had erected the south approach, erected the south half of the main span to panel point L_{48}. It was then replaced by a smaller traveler weighing 75 tons. The steel was hoisted from trucks near the two main piers and carried out in the falls or on dolly cars, except the members in the five panels over the channel, which were hoisted from barges in the canal.

On the north side, falsework bents placed at the second and fourth panel points permitted conventional cantilever erection beyond the fourth panel to midspan, although temporary diagonals were added to the web system of the trusses and, where necessary, hangers were temporarily reinforced for compression stresses. A temporary sway frame was also added at U_4 L_4 to transfer lateral loads on the top chords to the erection bent at L_4.

In order to cantilever beyond the one bent permitted on the south side, a tie-back anchored to the adjacent approach span was used. It consisted of a 100-ft. tower above the falsework bent and tension diagonals from the tower to panel points L_{48} and to L_0. The latter connection was necessary to prevent a possible reversal of stress in the forward diagonals during the earlier stages of erection because, from the time the tie-back system was in place until the span was swung, the south end of the span was not allowed

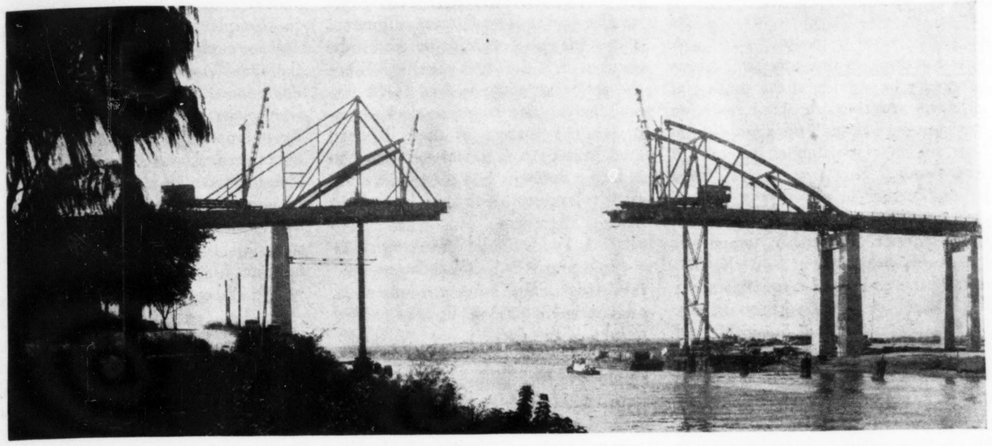


Fig. 1. Two variations of cantilever erection methods being used on tied arch over Chesapeake and Delaware Canal.

to rest on the pier. L_{28} and G_1 (Fig. 2) were the only points of support.

If the entire south half had been cantilevered beyond L_{28} to midspan, a very heavy and extensive tie-back system would have been required. It was desirable, therefore, to transfer a portion of the load to the north side. Consequently, the tie-back system was designed for cantilevering only the tie-girders and bottom lateral system beyond the fourth panel point. After the tie-girders were connected at midspan by a temporary pin, they functioned, between L_{48} and the pin, as a "suspended" span, partially fixed at one end and simply supported at the other, on which the hangers and arch ribs were erected.

In order to find the load transferred through the pins, the deflections of the midspan ends of the two halves were computed for the various stages of erection. The force necessary to bring the two ends to the same elevation was equal then to the load transferred. The north half was statically indeterminate to the third degree and was relatively stiff. The ends of the tie-girders deflected only 1½ in. with all steel in place. The south half, of first order indeterminacy, was extremely flexible because of the length of the cantilevered girders, and the ends deflected about 28½ in. at midspan. The maximum load transferred through the pins was approximately 340 kips and occurred just previous to the swinging of the span. Throughout the erection, the load transferred was regulated and checked by use of the hydraulic jacks under the two bents and at G_1.

Although both the tie-back system and the girders of the south half were designed to permit cantilevering the tie-girders to midspan, this procedure was not followed in erecting the closing sections of the tie-girders, so as not to disturb the alignment of an unriveted girder splice at L_{48} when the closing section was added. Had that splice been riveted immediately after erection, as originally planned, and while the member was still supported in the falls, the alignment of this splice would have been maintained. However, at this stage of the erection the south bent could have been seriously overloaded by a heavy wind. Consequently, it was considered preferable to close the tie girders and bottom lateral system without delay and thus transfer the wind load to the main piers.

The south half was, therefore, adjusted by the hydraulic jacks to a computed elevation in relation to the north half, so determined that the erection of the closing sections would not increase the moment at L_{48}. After erecting the girders to L_{68}, the first closing section was held in the falls while the splice at L_{68} was fitted up completely. Next the section was hoisted sufficiently to bring the pin holes in its north end to the same elevation as those in the section to which it connected, and then held there on the edges of the web splice plates while the closing section of the other girder was erected. Finally, the two halves of the span, which had been kept approximately 6 in. apart horizontally to admit the closing sections of the tie-girders, were brought together and the pins driven. Since the north half was fixed at the main pier, it was necessary to move the south half by means of jacks for this closure.

After the tie-girders were completely erected it was necessary to

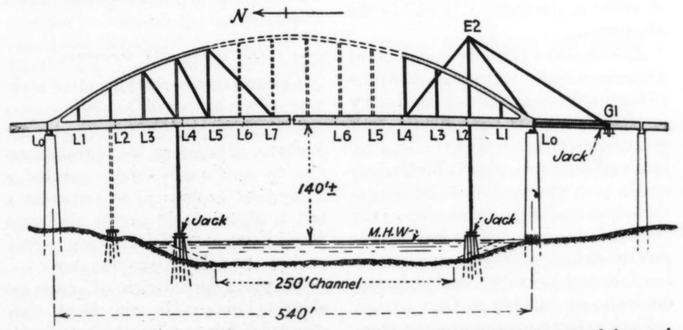


Fig. 2. Erection scheme for St. Georges Bridge. Restriction to one falsework bent on south side made use of a temporary tie-back system necessary. Heavy tie member of arch acts as girder span between cantilever points.

permit expansion and contraction at the south end; the anchorages of the tie-back system were designed to provide for this. At the same time it was necessary to provide at the south pier a lateral reaction for wind loads on the span even though the span did not bear on its expansion shoes until it was swung. This was accomplished by embedding in the pier a vertical steel cantilever beam engaging, in the same manner as a tooth, temporary transverse bearing seats on the bottom of the end floorbeam. A similar beam was used at the north main pier because of the lateral instability of the shoes during the stages when a small amount of uplift occurred at the main pier. The uplift was resisted by long anchor bolts through the shoes, which were further extended temporarily by sleeve nuts and rods to engage the trusses.

After all splices in the tie-girders, except those at midspan, were aligned and riveted, the smaller traveler completed the erection of the ribs, hangers and top laterals. The span, which had been held about 12 in. high at the center for clearance in erecting the closing rib sections, was then swung by simultaneously slacking off on all the jacks.

One of the important considerations throughout the erection was the attainment of the proper vertical alignment of the tie-girder, which, being some 13 times as stiff as the arch rib, would determine the geometrical outline of the whole structure. Before riveting, therefore, the moment in every splice was reduced to approximately zero, and the alignment across the splice checked with levels taken on the girder at the panel points. In some instances it was first necessary to subject the splice to a reverse moment, with bolts loosened, in order to eliminate a "kink" in the alignment.

Zero moment (and reverse moment when necessary) was obtained in the various splices as follows: at L_{2N} by jacking the bent at L_{4N} while the bent at L_{2N} was still in place; at L_{2S} by jacking down at G_1 with L_0 blocked up on the pier and member E_2-L_0 disconnected; at L_{4N} by the connection of the diagonals U_{4N}-L_{2N}. Following the closure of the girders, the moments at L_{4S}, L_{6N}, and L_{6S} were regulated, successively, by jacking at G_1.

During these operations, the computed movements at G_1 were checked against the reactions at both bents and at G_1 as measured by the gages on the jacks. The correct alignment across the splice at midspan had to be secured in a different manner. Since the splice at midspan had to be riveted before the concrete deck, comprising 43 percent of the full dead load, was placed, it was necessary to induce a moment into the girder sufficiently large to bring that splice into proper alignment. This was accomplished by locating the temporary closing pin 9 in. above the axis of the girder. The induced moment is, of course, removed by the added weight of the deck.

The effective results of the methods employed for aligning the girder were established by a check on the vertical alignment after the span was swung. At no point does it deviate appreciably from a smooth curve.

Riveting of the bearing splices in the ribs was not carried out until the milled ends of the rib sections were in complete contact. Most of the splices came into full bearing when the span was swung, and the remainder came together very satisfactorily when part of the bolts in the splice were loosened. The placing of the concrete deck was not started until all riveting was completed. The sequence of construction of the concrete deck was controlled in order to avoid overstressing the tie-girders by unsymmetrical loading.

The Phoenix Bridge Co., Phoenixville, Pa., was contractor for the superstructure. All work was under the direction of the Corps of Engineers, U. S. Army, with Lt. Col. H. B. Vaughan, district engineer at Philadelphia, as the contracting officer. Design and supervision of construction was carried out by Parsons, Klapp, Brinckerhoff & Douglas, Engineers.

Many Changes of Engineering Interest In Highway Legislation of 1941

LAWS RELATING TO HIGHWAYS were put on statute books of 40 states during the early months of 1941. Many related to routine matters, but in an unusually large number of instances new trends such as the growing acceptance of limited-access roads were evident. The following brief summary, covering subjects relating particularly to engineering aspects of highway development, has been compiled from digests of the new legislation published in the July number of "American Highways," official organ of the American Association of State Highway Officials, and in the July 22 bulletin of the National Highway Users Conference.

Toll roads and freeways

Colorado authorized its state highway advisory board to declare certain roads to be "freeways," with the highway department in control of access to such roads. Maine created a "Turnpike Authority" to construct a toll road northeast across the state from Kittery to Fort Kent; bonds payable by tolls to pay for cost.

Maryland denied right of access by abutting owners to any road constructed either as a freeway or a parkway, and gave the State Roads Commission power to designate points of access. It also authorized a toll superhighway between Baltimore and Washington.

Michigan authorized limited-access roads; this covers the $50,000,000 Detroit crosstown project and proposed routes between Detroit, Toledo and Grand Rapids. New York created the Westchester Cross-County Parkway Authority, with power to charge tolls. Ohio authorized the director of highways to construct freeways or limited-access roads and to study the location of a turnpike across the state as an extension of the Pennsylvania turnpike. Vermont transferred the administration of the Missisquoi Bay Toll Bridge from a special commission to the state highway board.

Diversion of highway funds

Three states (Iowa, Nevada and West Virginia) voted to submit to public vote amendments to their constitutions prohibiting the diversion of highway funds. Such amendments have been adopted in 12 states. On the other hand, Colorado created a department of revenue, with the right to levy against all highway department revenue.

Highway construction

Kansas expedited defense-road projects by repealing a law requiring 20 days between submission and approval of bids for highway work. Maryland will vote in November, 1942, on a constitutional amendment permitting the State Roads Commission to enter upon private property and proceed with road construction, in case of emergency, before instituting condemnation proceedings.

New York voters in November approved a constitutional amendment to use $60,000,000 of the state's grade-crossing funds for road-building purposes, half for construction of highways and half for parkways and main park roads. New Mexico authorized the issue of $4,000,000 in highway debentures for construction and improvement of state roads, including the incidental engineering costs. North Carolina provided that road contracts within a radius of 30 miles from any national defense project declared to be an emergency project may be let by negotiation after three days' advertisement and with the approval of the governor, without competitive bidding.

Streets and secondary roads

Alabama provided for allocating gasoline tax revenues to municipalities for road and street purposes. Arkansas added 184 miles to its state road mileage by a provision that the highway department may take over or construct highways extending into or through cities of 2,500 or more population that are not now included in the state system. California amended its highway laws to permit the use of state highway funds for work on military roads, whether or not they are a part of the state system. This is conditioned on the United States agreeing to reimburse the state for work on roads that are not a part of the state system. Connecticut increased its annual appropriation of $3,000,000 for town roads by an additional $1,000,000, which is to be allocated on the basis of mileage of unimproved roads.

Indiana added $3,000,000 to its allotment of highway funds to cities and counties. Iowa authorized its highway commission to enter into agreements with municipal authorities as to the construction and cost distribution of extensions of primary roads through municipalities. Kansas has authorized cities to improve federal or state connecting links, and to pay for the right-of-way by levy upon the entire city instead of upon adjoining property owners. Maine assumed the cost of certain activities for which the towns have had to contribute (maintenance of main and third-class roads, snow removal and cutting of bushes); an increase of ½c. per gallon in the gasoline tax is to cover this additional expense. Maryland revised the law for distributing funds to the counties to provide for a cheaper type of secondary roads that would not have to meet the state's standards and would not become part of the state highway system. Minnesota counties will receive about $1,200,000 from an additional 1c. gasoline tax, in place of revenue lost by repeal of a former property levy. North Carolina increased its annual appropriation for city streets from $500,000 to $1,000,000. Utah added 255 miles of country roads to its state system and required the State Road Commission to assist in building roads into scenic centers and providing camping grounds.

Vermont provided greater state assistance to towns. West Virginia has continued until July, 1943, its 1c. per gallon gasoline tax for surfacing secondary roads, and has authorized municipalities to improve streets through agreements with federal government agencies. Wyoming permits its highway commission to pay 50 percent of the cost of maintenance of streets connecting main highways.

Load restrictions

Progress was made toward uniformity in limitations of size and weight of vehicles. California, Indiana, Maine, Texas and Washington adopted a formula already in use by other state laws in which the gross weight of vehicle W equals C $(L+40)$; C is a coefficient, usually 700, but 800 in California, while L is the length between first and last axles of a vehicle or combination. California raised the axle limit from 17,000 to 18,000 lb., but reduced the wheel limit from 10,000 to 9,500 lb., to insure a better weight distribution. Indiana makes the axle load limit 18,000 lb.; wheel load 9,000 lb., and not to exceed 800 lb. per inch of tire width between the flanges. North Dakota has a new truck licensing law with limits of 40,000 lb. gross weight, 550 lb. per inch of tire width, and 18,000-lb. axle load. Ohio also adopts the 18,000-lb. axle limit. Oregon adopted the above formula, with a coefficient of 650 if wheelbase does not exceed 18 ft. and 750 for trucks with trailers used in transporting logs. Texas limits vehicles having low-pressure tires to 18,000-lb. axle load, 9,000-lb. wheel load, and 650 lb. per inch width of tire; for high-pressure tires, the figures are 16,000 lb., 8,000 lb. and 600 lb., respectively. Tennessee raised the gross weight from 24,000 to 30,000 lb., subject to 16,000-lb. axle load limit.

Administration

Indiana created a commission of 20 members (including the members of the state highway commission) to formulate a complete highway buildings and maintenance program, with means of financing it; a report is to be made by November, 1942. Utah created a department of engineering to take over the duties of the State Road Commission, state building commission and state engineer, except that this engineer continues independent in the administration of water rights. The new department will be under the supervision of an engineering commission, which will be assisted by an advisory council; the director of highways must be a "practical highway engineer." Washington has provided for an advisory highway commission, but it is stated that this makes no change in the duties of the director of highways.

Alabama created a merit system covering the various state departments, and Indiana created a similar system for engineers in all state departments, while Kansas created a state department of civil service. Minnesota granted civil-service status to county highway engineers. North Dakota recognized the disadvantages of its low salary scale for engineers, and authorized an increase not to exceed 20 percent.

City Services on Map

When taxpayers of Sacramento, Calif., want to find an obscure city office or wish to locate an unfamiliar park they can refer to a special map prepared for them by the city manager. The map, pocket-size, shows the location of all buildings and properties through which municipal services are provided, according to the International City Managers' Association. A municipal calendar and other pertinent facts about the city and its government are printed on the folder.

Builders Outline St. Georges Bridge Plan in Trade Paper

Unusual engineering features of the new St. Georges Bridge over the Chesapeake and Delaware Canal are explained in two articles in a recent issue of the Engineering News-Record.

"How St. Georges Tied Arch was Erected" was written by William H. Bruce, resident engineer, and Charles U. Kring, assistant resident engineer, both of Parsons, Klapp, Brinckerhoff, and Douglas, New York, consulting engineers with the Army engineers on the bridge.

Engineer Is Author

Maurice N. Quade, structural engineer of Parsons, Klapp, Brinckerhoff and Douglas, wrote an article, "Tie Dominates Rib in St. Georges Arch."

The St. Georges bridge is described by Mr. Quade as of a type new to American practice. The 540-foot main span is a "tied arch," but in contrast to the usual practice the tie, or lower main member, is the heavy member, and the arch, or upper member, is the light one.

The new type of span is described as "simpler in detail, easier in erection, and provides a possible small saving in steel."

Piers Protected

Protection is provided for the piers next to the water on each end of the main span to provide for possible future canal channel enlargement to a depth of 42 feet and width, at the bottom of 500 feet.

The present depth of the canal channel is 27 feet and the width 250 feet at the bottom.

Furnish Yo
with Cash
Credit at
L

Newspapers by ancestry

The News Journal (Wilmington, Delaware) · 13 Mar 1942, Fri · Page 14

Downloaded on May 26, 2022

Builders Outline St. Georges Bridge Plan in Trade Paper

Unusual engineering features of the new St. Georges Bridge over the Chesapeake and Delaware Canal are explained in two articles in a recent issue of the Engineering News-Record.

"How St. Georges Tied Arch was Erected" was written by William H. Bruce, resident engineer, and Charles U. Kring, assistant resident engineer, both of Parsons, Klapp, Brinckerhoff, and Douglas, New York, consulting engineers with the Army engineers on the bridge.

Engineer Is Author

Maurice N. Quade, structural engineer of Parsons, Klapp, Brinckerhoff and Douglas, wrote an article, "Tie Dominates Rib in St. Georges Arch."

The St. Georges bridge is described by Mr. Quade as of a type new to American practice. The 540-foot main span is a "tied arch," but in contrast to the usual practice the tie, or lower main member, is the heavy member, and the arch, or upper member, is the light one.

The new type of span is described as "simpler in detail, easier in erection, and provides a possible small saving in steel."

Piers Protected

Protection is provided for the piers next to the water on each end of the main span to provide for possible future canal channel enlargement to a depth of 42 feet and width, at the bottom of 500 feet. The present depth of the canal channel is 27 feet and the width 250 feet at the bottom.

Furnish Y
with Cash
Credit at
L

Clipped By:
historicbridges
Thu, May 26, 2022

Copyright © 2022 Newspapers.com. All Rights Reserved.

Powered by Newspapers.com

They Officiated at Formal Opening of New Span

Officiating at the formal bridge opening were, left to right: Governor Bacon, W. W. Mack, chief engineer of the highway department; Colonel Vaughan, and Mr. duPont.

Judge's Plan Works; Cat, Children Keep Dog From Barking

Children living in the 900 block Elm Street and the Chesapeake Bay Retriever of Frank Boruta, who lives in the same block, have finally become friends.

Boruta was before Judge Henry R. Isaacs in Municipal Court on Jan. 17, faced with a charge of harboring a barking dog. His neighbors had preferred the charge.

Judge Isaacs suggested Boruta get a cat companion for the dog. Last Saturday Boruta reported to the court that the cat brought some improvement, but not enough to suit his neighbors. The court then continued the case until today with the suggestion that the dog and children get on friendly terms.

Today Boruta reported to the court that the dog and children had finally reached friendly terms and the case was dismissed.

Brady-Reichners Team Wins Acme Bridge Party

First honors in the duplicate bridge games sponsored by the women's committee at the Acme Bridge and Tennis Club yesterday went to Mrs. Frank J. Brady and Mrs. Lew Reichers with a score of 49 points. Mrs. Lillian Lynch and Mrs. Francis J. Durant were second with 46 points. Mrs. William Grady and Mrs. Joseph Nesbitt were third, 45½ points.

Others taking part in the games were Mrs. Norman Frick and Mrs. James McCrone, Mrs. Horace Ridings and Miss Theresa Smith, Mrs. Willard Ryan and Mrs. Gerald Doherty, Mrs. Catherine Mulderick and Mrs. Thomas Prichard, and Mrs. Warren E. Young and Miss Frances Grady.

Mrs. Lillian Lynch and Mrs. Stuart Strobridge were hostesses. Mrs. Frank Hickman and Mrs. Francis J. Durant have been named hostesses for next week's games.

Mr. Joseph Foreacre and Mrs. Frank J. Grady won the honors in the mid-week session of duplicate at the club on Thursday night with a score of 35 points. Mr. James Mayhart and Mrs. James McCrone were second with 30½ points and Mr. Frank J. Brady and Mr. John F. Taylor were third with 30 points. Others taking part were Mr. and Mrs. James Moore, Mrs. Francis J. Durant and Mrs. Lew Reichers, and Mr. and Mrs. Stuart Strobridge.

New Air Regulations To Take Effect Feb. 15

All airports which fail to furnish a 24-hour armed guard will be closed by new Civil Aeronautics Authority regulations announced yesterady.

The new regulations, which govern both flight and basing of aircraft, provides that airplanes not under guard must be immobilized by removal of the engine, a wing, or both.

Until now, the C. A. A. has defined "immobilization" as removal of an essential part such as a wheel, aileron, or propellor.

In addition to obtaining permission from the Interceptor Command for all cross-country flights, pilots will be required to "sign out" with officers at the home airport, and telephone ahead to their destinations, telling when they expect to arrive. At the conclusion of a cross country trip, the pilot will be required to telephone or telegraph to his home port, stating time of arrival at his destination.

300 Attend Supper

More than 300 persons attended an oyster supper of the Democratic League of Delaware in its quarters at 610 French Street last night. U. S. Rep. Philip A. Traynor was among the guests.

Bridge

(Continued From Page One)

poured across in the wake of the official retinue. State police under Lieut. Roger P. Elderkin had a momentary traffic problem on their hands directing the civilian motorists around the official party.

"It is a magnificent bridge and the Army engineers have done an excellent job, one that Delaware is well proud of," said Governor Bacon.

"Delaware appreciates the difficulties that had to be overcome in completing this structure," he added.

The bridge, major link in Delaware's highway system, replaces a lift span that was destroyed when a ship struck it Jan. 10, 1939.

Well-Timed Ceremonies

The ceremonies were well timed, with the official party leaving the Hotel DuPont at 10:30. In addition to Governor Bacon, Colonel Vaughan and Mr. duPont, this group included Col. Charles H. Gant, the Governor's aide; J. Francis Blaine, Elmer C. Taylor and G. Lester Daniels, Levy Court Commissioners; Samuel J. Reeves of Bryn Mawr, Pa., president of the Phoenix Bridge Company, which constructed the span; Harry B. Eaton, a member of the New Castle County airport commission.

Barriers were still across the northern approach as the cars bearing the official party drove around a long line of traffic waiting to cross.

Governor Bacon and his attendants posed for photographers at the base of the approach before the motorcade started to cross.

Soldiers On Guard

Soldiers with bayonetted rifles patrolled the main span and two sandbagged shelters perched at the top of the bridge were grim reminders of war.

The bridge is "army property" Colonel Vaughn explained and the engineers will be in charge of maintaining it. Today's ceremonies merely dedicated it to public use.

The new bridge completely overshadows the town of St. Georges, with approach entrances at the town limits. The site of the old bridge is 50 yards to the east of the new one-mile span.

The town itself arranged no formality for today, and the ceremonies were entirely in the hands of state officials, the army and the contractors who worked on the structure.

Largest 'Tied Arch'

Some 35,000 yards of concrete and 7,500 tons of steel went into the making of this bridge, probably the largest "tied arch" crossing in the world. And a year and one half into the construction, started in July of 1940 with finishing touches being applied this week.

Parsons, Klapp, Brinckerhoff and Douglas, New York engineers who designed the span, said that the "tied arch" bridge is constructed in Europe but not generally in this country.

The builders were the Penker Construction Company, which constructed the foundations; Phoenix Bridge Company, steel work; George and Lynch, approach roads, and Corbetta Construction Company, decks.

The actual span over the canal is 540 feet in length and the navigation clearance is 135 feet.

The opening of the span recalled the grimmer side of the story that had its starting Jan. 10, 1939. On that day the S. S. Waukeegan ran wild with a broken steering gear and rammed into the northern pier of the old lift bridge, carrying two men to death in the twisted wreckage.

Town Disrupted

With the old lift bridge gone, St. Georges was a town divided. Community communications were disrupted; an automobile trip from one end of the town to the other, once a matter of a few hundred yards, became a 10 mile trek over a detour. Property assessments dwindled.

A year or so ago St. Georges discarded its charter; local government was no longer needed.

Delaware's highway system was completely awry with the bridge out. Getting to down state sections meant a trip over detours. State police had an extra job on their hands policing these by-passes, and accidents took a decided jump.

Three Years, Three Weeks

Three years and three weeks, to the very day, Delaware wrestled with these complications. The consternation was the whole state's but St. Georges was hit in particular. Even with the completion of the span the canal town fares poorly. The high type structure completely overshoots the town and St. Georges' main street is now a dead end stretch.

Woman, 80, Finishes Her 100th Sweater For Red Cross Since May

Mrs. Elizabeth P. L. Bell, 80 years old, established a record for Kent County Red Cross volunteer workers this week, when she completed knitting her one hundredth sweater since last May, all of which she donated to European War sufferers.

Mrs. Bell, who is a native of England, is one of the most active women in Kent County in her activities for European war relief nothwithstanding her advanced age.

Staff of Lodge Slates Visits

Sachem, Aides, Will Attend Five Council Conclaves; Schedule Is Announced

Visits will be made to Red Men's councils by Great Sachem Russell C. Mayo and his staff, accompanied by Deputy Great Pocahontas Lillian Messick of Newark and a member of Mineola Council No. 17, on Feb. 11 to Mineola Council, Feb. 16 to Leola Council No. 14 at Union, and to Yonah Council No. 15, Bear, Feb. 19.

Great Sachem Mayo and his board of 'great chiefs will visit Wawaset Tribe No. 9 on Thursday in Red Men's Hall, 517 Shipley Street.

The annual donation day for the Red Men's Fraternal Home at Newark will be held tonight at 8 o'clock under the auspices of the propagation committee. Plans for the annual banquet will be made at a meeting of this committee Thursday night.

New officers were installed in the Wyanoke Craft of Kennett Square, Pa., Monday night when Mrs. Ada M. Cooper, deputy state chief dairy maid, and 40 members of Wynema Craft visited the group.

Mrs. Gertrude Fleming is general chairman of a card party to be sponsored in Red Men's Hall Friday night by the propagation committee. Minqua Tribe will hold a similar party in the hall Feb. 9, with Arthur Purse as chairman.

Kissing Charges Involve Wardens

Major Sues Another As Aftermath of Party On New Year's

NEW YORK, Jan. 31 (AP).—The question of who—if anyone—was kissed by whom at a New Year's Eve party of air raid wardens in the Bronx reached State Supreme Court today with the filing of a $150,000 damage suit against a fellow warden by Maj. Frank Knowles, who charged false arrest, imprisonment, and defamation of character.

The defendant was Ernest R. Rathkopf, who had said Major Knowles' conduct at the party was unbecoming a civilian defense officer. He declared the major went on a kissing spree.

Knowles announced that he would resign his post today although he was cleared by three other zone wardens after a "court martial" proceeding in a Bronx police station on Rathkopf's charges. Rathkopf said he brought the charges after Knowles, his superior, told him his services were no longer wanted.

...o Tighten Curb ...t Buying Habit

2. Fears in government quarters that Congress will fail to exact all of the $9,000,000,000 in additional taxes asked by President Roosevelt thus leaving "excessive" purchasing power in the hands of the public.

Purchases Reduced

3. Curtailment of the sales of new automobiles, the largest single installment buying item, which has left an overly-large amount of available credit in the hands of the public, which might be deflected to

Town Set for Bo... States to Save

HUDSON, Wis., July 31 (AP).—Hudson—population 2,987—seethed with indignation today and girded for battle against the states of Minnesota and Wisconsin, highway officials and congressmen from both states, trucking companies and bus lines to save its municipally-owned toll bridge.

The fight started a year ago when the two states moved for a new free bridge at or near Hudson. It reached a climax Wednesday in a Washington hearing on a bill authorizing the states to build the bridge.

Bottleneck Charged

At the hearing before a Senate commerce subcommittee, Hudson

Newspapers.com by ancestry

The News Journal (Wilmington, Delaware) · 31 Jan 1942, Sat · Page 10

Downloaded on May 26, 2022

They Officiated at Formal Opening of New Span

Officiating at the formal bridge opening were, left to right: Governor Bacon, W. W. Mack, chief engineer of the highway department; Colonel Vaughan, and Mr. duPont.

Judge's Plan Works; Cat, Children Keep Dog From Barking

Children living in the 900 block Elm Street and the Chesapeake Bay Retriever of Frank Boruta, who lives in the same block, have finally become friends.

Boruta was before Judge Henry R. Isaacs in Municipal Court on Jan. 17, faced with a charge of harboring a barking dog. His neighbors had preferred the charge.

Judge Isaacs suggested Boruta get a cat companion for the dog. Last Saturday Boruta reported to the court that the cat brought some improvement, but not enough to suit his neighbors. The court then continued the case until today with the suggestion that the dog and children get on friendly terms.

Today Boruta reported to the court that the dog and children had finally reached friendly terms and the case was dismissed.

Brady-Reichners Team Wins Acme Bridge Party

First honors in the duplicate bridge games sponsored by the women's committee at the Acme Bridge and Tennis Club yesterday went to Mrs. Frank J. Brady and Mrs. Lew Reichers with a score of 49 points. Mrs. Lillian Lynch and Mrs. Francis J. Durant were second with 46 points. Mrs. William Grady and Mrs. Joseph Nesbitt were third, 45½ points.

Others taking part in the games were Mrs. Norman Frick and Mrs. James McCrone, Mrs. Horace Ridings and Miss Theresa Smith, Mrs. Willard Ryan and Mrs. Gerald Doherty, Mrs. Catherine Mulderick and Mrs. Thomas Pritchard, and Mrs. Warren E. Young and Miss Frances Grady.

Mrs. Lillian Lynch and Mrs. Stuart Strobridge were hostesses. Mrs. Frank Hickman and Mrs. Francis J. Durant have been named hostesses for next week's games.

Mr. Joseph Foreacre and Mrs. Frank J. Grady won the honors in the mid-week session of duplicate at the club on Thursday night with a score of 35 points. Mr. James Mayhart and Mrs. James McCrone were second with 30½ points and Mr. Frank J. Brady and Mr. John F. Taylor were third with 30 points. Others taking part were Mr. and Mrs. James Moore, Mrs. Francis J. Durant and Mrs. Lew Reichers, and Mr. and Mrs. Stuart Strobridge.

New Air Regulations To Take Effect Feb. 15

All airports which fail to furnish a 24-hour armed guard will be closed by new Civil Aeronautics Authority regulations announced yesterady.

The new regulations, which govern both flight and basing of aircraft, provides that airplanes not under guard must be immobilized by removal of the engine, a wing, or both.

Until now, the C. A. A. has defined "immobilization" as removal of an essential part such as a wheel, aileron, or propellor.

In addition to obtaining permission from the Interceptor Command for all cross-country flights, pilots will be required to "sign out" with officers at the home airport, and telephone ahead to their destinations, telling when they expect to arrive. At the conclusion of a cross country trip, the pilot will be required to telephone or telegraph to his home port, stating time of arrival at his destination.

300 Attend Supper

More than 300 persons attended an oyster supper of the Democratic League of Delaware in its quarters at 610 French Street last night. U. S. Rep. Philip A. Traynor was among the guests.

...o Tighten Curb ...nt Buying Habit

2. Fears in government quarters that Congress will fail to exact all of the $9,000,000,000 in additional taxes asked by President Roosevelt thus leaving "excessive" purchasing power in the hands of the public.

Purchases Reduced

3. Curtailment of the sales of new automobiles, the largest single installment buying item, which has left an overly-large amount of available credit in the hands of the pub...

Bridge

(Continued From Page One)

poured across in the wake of the official retinue. State police under Lieut. Roger P. Elderkin had a momentary traffic problem on their hands directing the civilian motorists around the official party.

"It is a magnificent bridge and the Army engineers have done an excellent job, one that Delaware is well proud of," said Governor Bacon.

"Delaware appreciates the difficulties that had to be overcome in completing this structure," he added.

The bridge, major link in Delaware's highway system, replaces a lift span that was destroyed when a ship struck it Jan. 10, 1939.

Well-Timed Ceremonies

The ceremonies were well timed, with the official party leaving the Hotel DuPont at 10:30. In addition to Governor Bacon, Colonel Vaughan and Mr. duPont, this group included Col. Charles H. Gant, the Governor's aide; J. Francis Blaine, Elmer C. Taylor and G. Lester Daniels, Levy Court Commissioners; Samuel J. Reeves of Bryn Mawr, Pa., president of the Phoenix Bridge Company, which constructed the span; Harry B. Eaton, a member of the New Castle County airport ocmmission.

Barriers were still across the northern approach as the cars bearing the official party drove around a long line of traffic waiting to cross.

Governor Bacon and his attendants posed for photographers at the base of the approach before the motorcade started to cross.

Soldiers On Guard

Soldiers with bayonetted rifles patrolled the main span and two sandbagged shelters perched at the top of the bridge were grim reminders of war.

The bridge is "army property" Colonel Vaughn explained and the engineers will be in charge of maintaining it. Today's ceremonies merely dedicated it to public use.

The new brirge completely overshadows the town of St. Georges, with approach entrances at the town limits. The site of the old bridge is 50 yards to the east of the new one-mile span.

The town itself arranged no formality for today, and the ceremonies were entirely in the hands of state officials, the army and the contractors who worked on the structure.

Largest 'Tied Arch'

Some 35,000 yards of concrete and 7,500 tons of steel went into the making of this bridge, probably the largest "tied arch" crossing in the world. And a year and one half into the construction, started in July of 1940 with finishing touches being applied this week.

Parsons, Klapp, Brinckerhoff and Douglas, New York engineers who designed the span, said that the "tied arch" bridge is constructed in Europe but not generally in this country.

The builders were the Penker Construction Company, which constructed the foundations; Phoenix Bridge Company, steel work; George and Lynch, approach roads, and Corbetta Construction Company, decks.

The actual span over the canal is 540 feet in length and the navigation clearance is 135 feet.

The opening of the span recalled the grimmer side of the story that had its starting Jan. 10, 1939. On that day the S. S. Waukeegan ran wild with a broken steering gear and rammed into the northern pier of the old lift bridge, carrying two men to death in the twisted wreckage.

Town Disrupted

With the old lift bridge gone, St. Georges was a town divided. Community communications were disrupted; an automobile trip from one end of the town to the other, once a matter of a few hundred yards, became a 10 mile trek over a detour. Property assessments dwindled.

A year or so ago St. Georges discarded its charter; local government was no longer needed.

Delaware's highway system was completely awry with the bridge out. Getting to down state sections meant a trip over detours. State police had an extra job on their hands policing these by-passes, and accidents took a decided jump.

Three Years, Three Weeks

Three years and three weeks, to the very day, Delaware wrestled with these complications. The consternation was the whole state's but St. Georges was hit in particular. Even with the completion of the span the canal town fares poorly. The high type structure completely overshoots the town and St. Georges' main street is now a dead end stretch.

Woman, 80, Finishes Her 100th Sweater For Red Cross Since May

Mrs. Elizabeth P. L. Bell, 80 years old, established a record for Kent County Red Cross volunteer workers this week, when she completed knitting her one hundredth sweater since last May, all of which she donated to European War sufferers.

Mrs. Bell, who is a native of England, is one of the most active women in Kent County in her activities for European war relief nothwithstanding her advanced age.

Staff of Lodge Slates Visits

Sachem, Aides, Will Attend Five Council Conclaves; Schedule Is Announced

Visits will be made to Red Men's councils by Great Sachem Russell C. Mayo and his staff, accompanied by Deputy Great Pocahontas Lillian Messick of Newark and a member of Mineola Council No. 17, on Feb. 11 to Mineola Council, Feb. 16 to Leola Council No. 14 at Union, and to Yonah Council No. 15, Bear, Feb. 19.

Great Sachem Mayo and his board of 'great chiefs will visit Wawaset Tribe No. 9 on Thursday in Red Men's Hall, 517 Shipley Street.

The annual donation day for the Red Men's Fraternal Home at Newark will be held tonight at 8 o'clock under the auspices of the propagation committee. Plans for the annual banquet will be made at a meeting of this committee Thursday night.

New officers were installed in the Wyanoke Craft of Kennett Square, Pa., Monday night when Mrs. Ada M. Cooper, deputy state chief dairy maid, and 40 members of Wynema Craft visited the group.

Mrs. Gertrude Fleming is general chairman of a card party to be sponsored in Red Men's Hall Friday night by the propagation committee. Minqua Tribe will hold a similar party in the hall Feb. 9, with Arthur Purse as chairman.

Kissing Charges Involve Wardens

Major Sues Another As Aftermath of Party On New Year's

NEW YORK, Jan. 31 (AP).—The question of who—if anyone—was kissed by whom at a New Year's Eve party of air raid wardens in the Bronx reached State Supreme Court today with the filing of a $150,000 damage suit against a fellow warden by Maj. Frank Knowles, who charged false arrest, imprisonment, and defamation of character.

The defendant was Ernest R. Rathkopf, who had said Major Knowles' conduct at the party was unbecoming a civilian defense officer. He declared the major went on a kissing spree.

Knowles announced that he would resign his post today although he was cleared by three other zone wardens after a "court martial" proceeding in a Bronx police station on Rathkopf's charges. Rathkopf said he brought the charges after Knowles, his superior, told him his services were no longer wanted.

Town Set for Ba... States to Save...

HUDSON, Wis., July 31 (AP).—Hudson—population 2,987—seethed with indignation today and girded for battle against the states of Minnesota and Wisconsin, highway officials and congressmen from both states, trucking companies and bus lines to save its municipally-owned toll bridge.

The fight started a year ago when the two states moved for a new free bridge at or near Hudson. It reached a climax Wednesday in a Washington hearing on a bill authorizing the states to build the bridge.

Bottleneck Charged

At the hearing before a Senate commerce subcommittee, Hudson

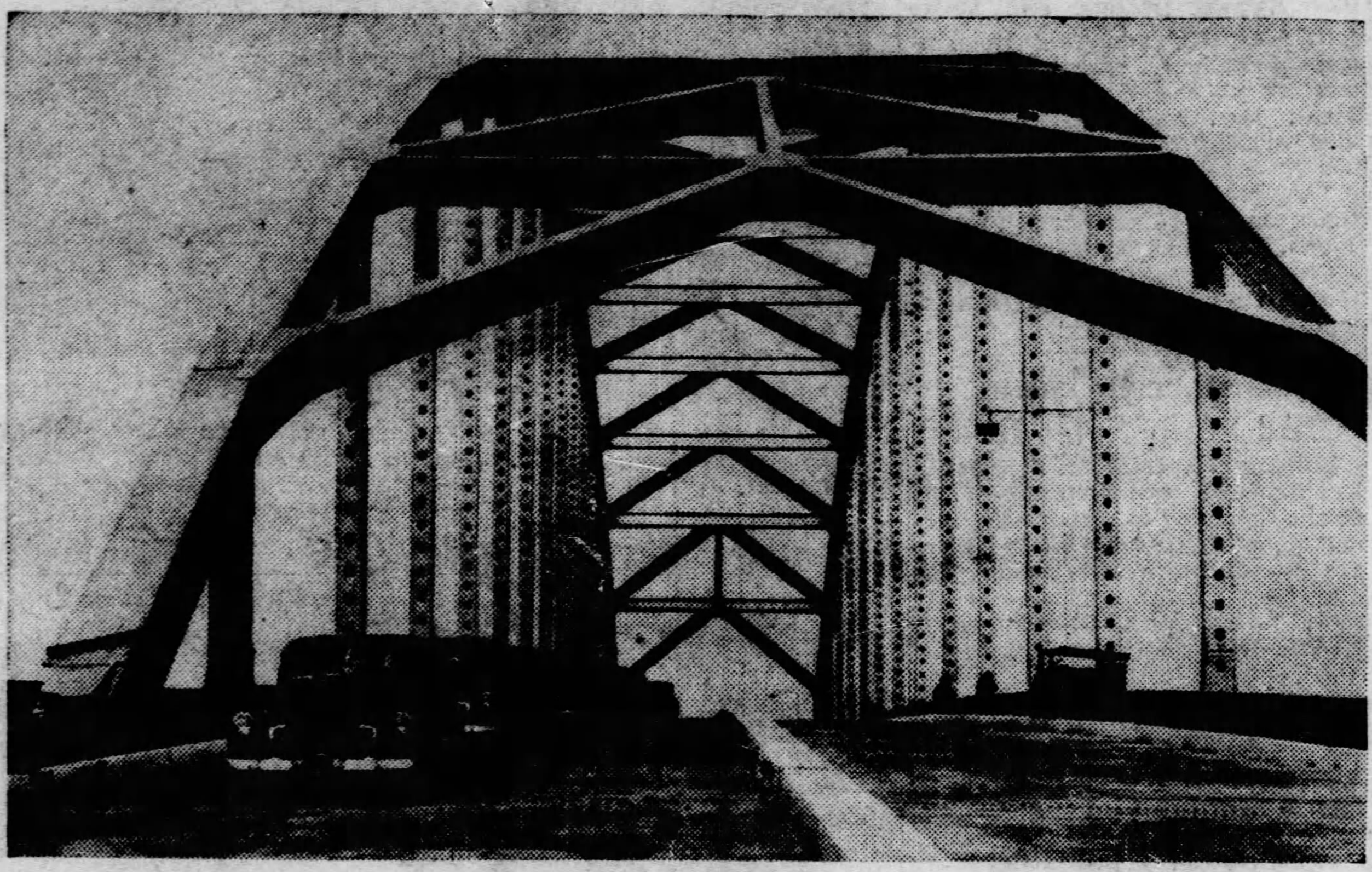
Clipped By:

DelawarePublicArchives
Thu, Mar 16, 2017

Copyright © 2022 Newspapers.com. All Rights Reserved.

Powered by Newspapers.com

Governor in First Car to Cross St. Georges Bridge



By Staff Photographer.

First to cross the new St. Georges bridge were Governor Bacon, Col. H. B. Vaughan, and Frank duPont, whose automobile is seen as it reached the crest.

St. Georges Bridge Opened; Bacon First to Cross Span

Unpretentious Ceremonies, 'Because of the Gravity Of These Times,' Mark Dedication; 200 Cars Use Structure During First Ten Minutes

St. Georges Bridge, a $2,500,000 structure that spans the Chesapeake and Delaware Canal at the town of St. Georges, was opened to the public this morning with Gov. Walter W. Bacon officiating.

The ceremonies, lacking pretentions "because of the gravity of these times" took five or six minutes and at once the public was making good use of the new structure. Within 10 minutes after the formal opening at least 200 cars and trucks had made the crossing.

To Governor Bacon went the honor of being the first to cross the span. With Col. H. B. Vaughan, Army engineer for this district, and Frank V. duPont, chairman of the highway commission, Governor Bacon led a motorcade on a round trip over the bridge.

Less than 100 of the town residents turned out for the short ceremonies which had its start at the northern approach at the town's limit.

Whistles on two tugboats, an army engineer tender and a cargo ship plying the canal, sounded a salute as the official cars reached the main span of the bridge.

Down to the southern approach end went the corps of cars and then back across to the starting point. It was just 11 o'clock—official opening time—when the Governor's car first reached the peak of the bridge.

Motorists, some of whom had been waiting for more than an hour,

(See BRIDGE—Page 10)

Women Ready To Join Army Auxiliary Units

They Would Be Paid $21 Monthly, Bill to Create Corps Will Pass House

WASHINGTON, Jan. 31 (INS).—Thousands of American women are ready to enlist in the Women's Auxiliary Army Corps at $21 a month, Rep. Edith Nourse Rogers (R-Mass) reported today revealing that she is being deluged by mail from the ready volunteers.

Sponsored by Mrs. Rogers, and unanimously approved by the military affairs committee, the bill creating a uniformed women's army

War's Impact Is Discussed By Publishers

Loss of Advertising Profits Strikes Press; Weeklies Consider Rise in Price

The effect of the second World War, particularly upon weekly newspapers, was thoroughly discussed today by publishers of the Delmarva Peninsula at the joint annual meetings of the Del-Mar-Va and Maryland Press Associations in the Hotel DuPont.

Loss of national and local advertising as a result of war-time conditions was particularly in the focus of the discussions.

Emphasis of the entire meeting was also placed on problems of circulation, advertising, and the handling of public information released through federal, state, and municipal authorities.

Price Rise Studied

Proposals to increase the annual subscription rate of weekly newspapers were studied as a means of supplying revenue which has been lost since large manufacturing companies, formerly national advertisers in weekly papers, have in many cases discontinued weekly newspaper advertising altogether. It was suggested that an average of 50 cents a year be the increase in

(See PUBLISHERS—Page 4)

Red Cross Working With A. E. F. in Ireland

BELFAST, Northern Ireland,

Newspapers by ancestry

Downloaded on May 26, 2022

Governor in First Car to Cross St. Georges Bridge

By Staff Photographer.

First to cross the new St. Georges bridge were Governor Bacon, Col. H. B. Vaughan, and Frank duPont, whose automobile is seen as it reached the crest.

St. Georges Bridge Opened; Bacon First to Cross Span

Unpretentious Ceremonies, 'Because of the Gravity Of These Times,' Mark Dedication; 200 Cars Use Structure During First Ten Minutes

St. Georges Bridge, a $2,500,000 structure that spans the Chesapeake and Delaware Canal at the town of St. Georges, was opened to the public this morning with Gov. Walter W. Bacon officiating.

The ceremonies, lacking pretentions "because of the gravity of these times" took five or six minutes and at once the public was making good use of the new structure. Within 10 minutes after the formal opening at least 200 cars and trucks had made the crossing.

To Governor Bacon went the honor of being the first to cross the span. With Col. H. B. Vaughan, Army engineer for this district, and Frank V. duPont, chairman of the highway commission, Governor Bacon led a motorcade on a round trip over the bridge.

Less than 100 of the town residents turned out for the short ceremonies which had its start at the northern approach at the town's limit.

Whistles on two tugboats, an army engineer tender and a cargo ship plying the canal, sounded a salute as the official cars reached the main span of the bridge.

Down to the southern approach end went the corps of cars and then back across to the starting point. It was just 11 o'clock—official opening time—when the Governor's car first reached the peak of the bridge.

Motorists, some of whom had been waiting for more than an hour,

(See BRIDGE—Page 10)

Women Ready To Join Army Auxiliary Units

They Would Be Paid $21 Monthly, Bill to Create Corps Will Pass House

WASHINGTON, Jan. 31 (INS).—Thousands of American women are ready to enlist in the Women's Auxiliary Army Corps at $21 a month, Rep. Edith Nourse Rogers (R-Mass) reported today revealing that she is being deluged by mail from the ready volunteers.

Sponsored by Mrs. Rogers, and unanimously approved by the military affairs committee, the bill cre-

War's Impact Is Discussed By Publishers

Loss of Advertising Profits Strikes Press; Weeklies Consider Rise in Price

The effect of the second World War, particularly upon weekly newspapers, was thoroughly discussed today by publishers of the Delmarva Peninsula at the joint annual meetings of the Del-Mar-Va and Maryland Press Associations in the Hotel DuPont.

Loss of national and local advertising as a result of war-time conditions was particularly in the focus of the discussions.

Emphasis of the entire meeting was also placed on problems of circulation, advertising, and the handling of public information released through federal, state, and municipal authorities.

Price Rise Studied

Proposals to increase the annual subscription rate of weekly newspapers were studied as a means of supplying revenue which has been lost since large manufacturing companies, formerly national advertisers in weekly papers, have in many cases discontinued weekly newspaper advertising altogether. It was suggested that an average of 50 cents a year be the increase in

(See PUBLISHERS—Page 4)

Red Cross Working With A. E. F. in Ireland

BELFAST, Northern Ireland,

Clipped By:
historicbridges
Thu, May 26, 2022

Copyright © 2022 Newspapers.com. All Rights Reserved.

Powered by Newspapers.com

SHIP WRECKS CANAL SPAN; ONE KILLED

Voters Give G. O. P. Veto Control Over Legislation

Abrahams Defeats Schorr By 2,840 for State Senate Seat; Republicans Have Enough Votes to Override Governor's Vetoes

Republicans today held veto control over both houses of the Legislature with the victory of Edward Abrahams, Jr., over Sigmund Schorr, Democrat, in a special election in the Second Senatorial District of Wilmington yesterday.

They already held that power in the House by a three-fifths majority and Abrahams' victory gives them the same three-fifths margin in the state Senate, enough to override any veto by the Governor.

Abrahams, polling 9,311 votes to Schorr's 6,471 for a majority of 2,840, will take the Senate seat held by the late Daniel E. Kelly, Democrat.

The Republicans will control the Senate 11 to 6, and the House 21 to 13 with a vacancy yet to be filled due to the recent death of Dr. Joseph Roop Smith, Democrat, of Marydel.

The victory places the party in a position to carry out its entire legislative program.

Party leaders have indicated there will be no "ripper" legislation, al-

(Please Turn to Page 4, Column 3).

Mystery Noise Upsets Brooklyn

Blame Rumblings On Everything — Even The Dodgers

NEW YORK, Jan. 10 (AP).—The "case of the big noise"—a recurrent rumbling from the skies that startled hundreds of Fatbush residents—left Brooklyn police with an unsolved mystery today.

Still remembering the Orson Welles Martian broadcast, the Brooklynites crowded into streets and listened to the strange roaring emerging from a cloudy sky at irregular intervals from 10:45 to 11:30 o'clock last night.

Scores phoned police, and squad cars cruised about checking reports of explosions and earthquakes.

Mystified, the police investigated and discarded rumors that it had been caused by:

(a) A roller skating rink; (b) An earthquake; (c) A blast; (d) An airplane; (e) A windstorm; (f) An amateur radio operator; (g) A lion in the Brooklyn Prospect Park zoo; (h) A tidal wave; (i) The Brooklyn Dodgers.

Scientists at Fordham University said no earth shock or explosion had registered on the seismograph there. The weather bureau reported no thunder.

A young girl said the noise sounded like "surf dashing against a rock-bound shore." That only obscured the issue further.

King Honors American For Part in Ship Rescue

OSLO, Norway, Jan. 10 (AP).—King Haakon today appointed Capt. Clifton Smith of the American steamer Schodack a Knight of St. Olaf in recognition of his part in the rescue of the passengers and crew of the Norwegian steamer Smaragd in the Atlantic Ocean Dec. 23.

(The United States Maritime Commission previously had commended Captain Smith for the rescue.)

Anti - Semitism Raised in Blast At Frankfurter

Borah, Angered, Denounces Witness for Reference At Senate Group's Hearing

WASHINGTON, Jan. 10 (INS). — An oblique attack on the nomination of Prof. Felix Frankfurter to be an associate justice of the United State Supreme Court—a reference to Jews—was choked off today at a Senate hearing with a wrathful denunciation by a leading Republican —Senator William E. Borah of Idaho.

Before a crowded chamber in which a Senate judiciary subcommittee started hearings on President Roosevelt's appointment of the famous Harvard liberal, the Idaho senator demanded that all allusions to semitism be omitted.

Collis O. Redd of Washington, representing the National Crusaders of America, was the first witness to testify in opposition to Frankfurter's confirmation by the Senate. He started to quote from newspaper articles on the so-called "Jewish question."

Senator Borah interrupted him immediately.

"Are you here opposing Frankfurter on the ground that he is a Jew?" the senator demanded

"No," Redd replied in an abashed tone.

"Then," Borah snapped, 'wh]

(Please Turn to Page 4, Column 2).

Steele Plans Revision Of Senate Committees

President Pro Tem David Wilmer Steele of Ocean View announced today he intends to revise the list of State Senate standing committees, as a result of the election of Edward Abrahams, Jr., in the Second Senatorial District yesterday.

He pointed out that if the committees were not revised, the representative of the Second Senatorial District of this city would not be on any of them.

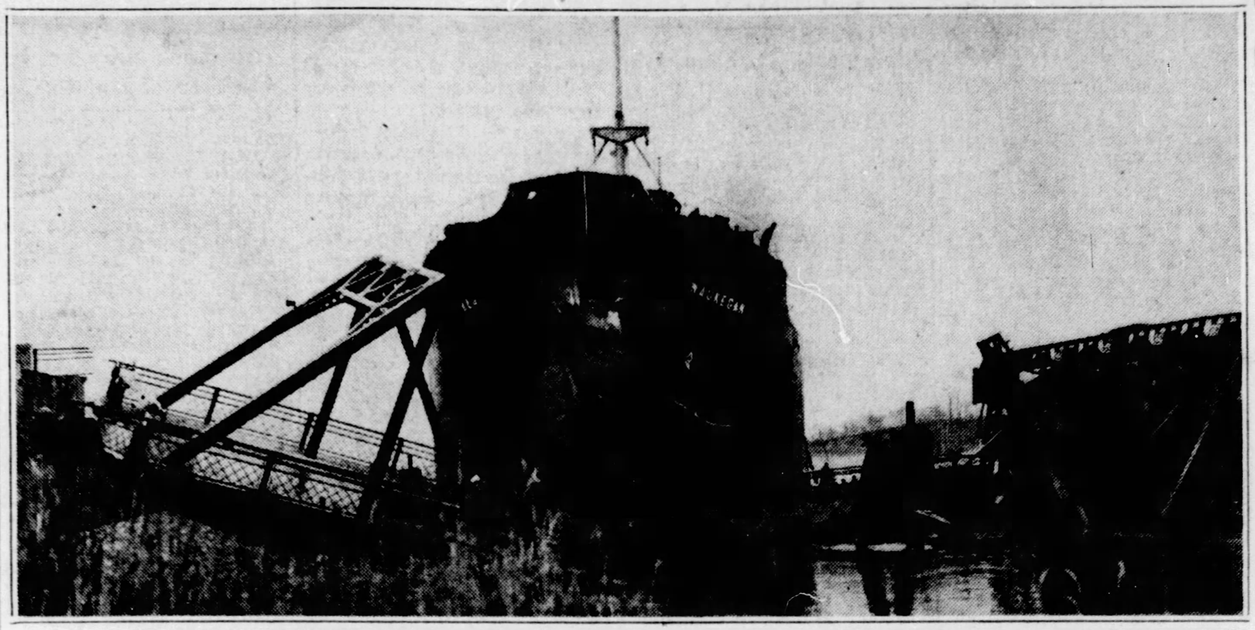
Grand Jury Acts In Probe of 14 Political Leaders

HARRISBURG, Pa., Jan. 10 (AP).—A Dauphin County grand jury, resuming its investigation of campaign charges against 14 state Democratic leaders, took up today the problem of what portion of the charges it would consider next.

The jurors already have indicated they would like to continue looking into a report that sub-standard gravel was used on highway projects in Erie and Warren Counties.

The gravel case brought from the jury Saturday its first indictment. The true bill accused David L. Lawrence, secretary of the commonwealth and state Democratic chairman, of blackmail, conspiracy to "cheat and defraud" the state,

Freighter Caught Fast in Wreckage of St. Georges Bridge



—By Staff Photographer.

Her prow aground, the government-owned freighter Waukegan is caught fast in the wrecked superstructure of St. Georges Bridge, with one man missing and another seriously hurt after the ship crashed into the bridge this morning. Highway and canal traffic was disrupted. Robert Quinn, bridge tender, was believed drowned in the control house (to the right of the boat) which fell into the water. William Oakes, government inspector, was thrown clear of the twisted girders, but both his legs were broken.

—Photos by W. Lyle Mowlds.

Engineers say it will take two or more weeks to remove the twisted structure of the bridge from the canal. The picture at the right shows the center span in the water. At the left is the Waukegan aground behind the bridge pilings.

New Deal Gets Congress Test In WPA Votes

House Committee Due To Slash Appropriation, But Hopkins' Victory Is Seen

WASHINGTON, Jan. 10 (AP).—Congressional economy advocates and critics of "politics in relief" moved rapidly today toward an initial showdown with Roosevelt forces over the Works Progress Administration.

Interest in the outcome was heightened on Capitol Hill by the fact that it will afford the first test of the President's strength in both House and Senate.

On the House side, the issue was drawn by Mr. Roosevelt's request for

Britain Backs France Against Duce's Claims

French Cabinet Told London in Agreement With Daladier Government to Reject Any Demand By Italy for Share of Empire

PARIS, Jan. 10 (AP).—An agreement between France and Britain to reject any Italian territorial demands for a share in the French empire was announced to the French cabinet today by Foreign Minister Georges Bonnet.

Following a cabinet meeting at the Elysee Palace, shortly before British Prime Minister Chamberlain and Foreign Secretary Viscount Halifax were to reach Paris on their way to Rome, it was disclosed that Bonnet told his colleagues he had received assurance of "the complete accord of the London cabinet with the French point of view."

This, Bonnet said, had been conveyed to him last night by Sir Eric

Roosevelt Plans Caribbean Cruise To Review Fleet

WASHINGTON, Jan. 10 (AP).—President Roosevelt, it was learned authoritatively today, has decided tentatively on a Caribbean cruise

Vets Will Press For Enactment Of Civil Service

Legion and V. F. W. Seek Preference for Former Soldiers in State Jobs

The Delaware American Legion will sponsor a bill in the legislature, setting up a civil service or merit system for state employes.

The legion's executive committee at a meeting in Selbyville last night approved a report of the legislative committee, recommending the bill.

The proposed law would provide for a five-point preference for veterans who apply for state jobs, a 10 per cent preference for disabled veterans and the waiving of any age limit for veterans.

(The Delaware Department of

2 Men in Tower As Bridge Falls At St. Georges

Robert Quinn, Tender, Believed Dead in Tangled Wreckage of Span After 395-Foot Freighter Rams Structure When Rudder Fouls; Federal Inspector Thrown Clear, But Both His Legs Are Broken; Rescued by Sailors From Canal Waters

Waukegan Was Headed West Through Waterway as It Smashed Into Lift Span

Impact Sends Control Room Down Over Steel Girders; Truck Driver Says Sound of Crash Could Be Heard Three-Quarters of Mile Away; Quinn Believed to Have Been Killed or Drowned; Traffic on Highway Tied Up

A bridge tender was reported killed and the government inspector injured this morning when the 395-foot freighter Waukegan crashed into the bridge at St. Georges, toppling the steel structure into the Chesapeake and Delaware Canal.

The ship, its rudder fouled, smashed into the north tower, tumbling the tower and the center span into the water. The two men were in the control house on the center span.

Robert Quinn, 45-year-old bridge tender of St. Georges, was believed trapped in the tower. His body had not been recc at noon today.

Man Thrown Clear

William F. Oakes, 45, also of St. Georges, was thrown clear of the control house, and was rescued by a rowboat from the Waukegan after clinging to the partially submerged structure for 20 minutes.

Oakes, with both legs broken, was rushed to St. Francis Hospital in Wilmington for an emergency operation.

Norman Sparks of St. Georges had gone off duty as bridge tender only a few minutes before the accident.

$300,000 Damage to Bridge

Damage to the bridge was unofficially estimated at $300,000. A falling girder tore a hole in the bow of the freighter above the waterline.

Clement Vaughn, a U. S. surveyor working nearby said the vessel apparently went out of control suddenly.

Both anchors were dropped, he added and the engines were ordered full speed astern, but the freighter swept on, jamming into the north tower.

Boat Bound For Baltimore

The tower crumpled, splashing with a roar into the canal, 25 feet deep at that point. It pinned the ship's prow.

With it went the roadbed, lifted

(Please Turn to Page 10, Column 1).

Attempt to Slay Carol Reported

Iron Guard Plot to Kill Ruler With Bomb Is Related in London

LONDON, Jan. 10 (INS).—The diplomatic correspondent of the London Daily Telegraph reported today that serious attempt has been made against the life of King Carol of

Canal Bridge Cost $500,000; Opened in 1926

Federal Government Built Span to Replace Wooden Swing; Took 21 Months

The St. Georges bridge across the Chesapeake and Delaware Canal was constructed by the federal government at an approximate cost of $500,000.

It was a vertical concrete and steel bridge, replacing an old wood swing span.

Construction was begun in July, 1924 and it was open to traffic March, 1926.

The bridge was 450 feet long overall. The center or lift span, 205 feet long, was raised on cables from two 170-foot steel towers. The approaches were 120 feet long each. The lift span was raised by electric current with reserve gasoline apparatus in case of emergency. The mechanism was housed on the lift.

The two steel 170-foot towers rested partly on the pier proper and the canal end of the approaches.

The bridge roadway was 24 feet

(Please Turn to Page 10, Column 5).

Newspapers by ancestry

The News Journal (Wilmington, Delaware) · 10 Jan 1939, Tue · Page 1

Downloaded on May 26, 2022

SHIP WRECKS CANAL SPAN; ONE KILLED

Voters Give G. O. P. Veto Control Over Legislation

Abrahams Defeats Schorr By 2,840 for State Senate Seat; Republicans Have Enough Votes to Override Governor's Vetoes

Republicans today held veto control over both houses of the Legislature with the victory of Edward Abrahams, Jr., over Sigmund Schorr, Democrat, in a special election in the Second Senatorial District of Wilmington yesterday.

They already held that power in the House by a three-fifths majority and Abrahams' victory gives them the same three-fifths margin in the state Senate, enough to override any veto by the Governor.

Abrahams, polling 9,311 votes to Schorr's 6,471 for a majority of 2,840, will take the Senate seat held by the late Daniel E. Kelly, Democrat.

The Republicans will control the Senate 11 to 6, and the House 21 to 13 with a vacancy yet to be filled due to the recent death of Dr. Joseph Roop Smith, Democrat, of Marydel.

The victory places the party in a position to carry out its entire legislative program.

Party leaders have indicated there will be no "ripper" legislation, al-

(Please Turn to Page 4, Column 3)

Mystery Noise Upsets Brooklyn

Blame Rumblings On Everything — Even The Dodgers

NEW YORK, Jan. 10 (AP).—The "case of the big noise"—a recurrent rumbling from the skies that startled hundreds of Fairbush residents—left Brooklyn police with an unsolved mystery today.

Still remembering the Orson Welles Martian broadcast, the Brooklynites crowded into streets and listened to the strange roaring emerging from a cloudy sky at irregular intervals from 10:45 to 11:30 o'clock last night.

Scores phoned police, and squad cars cruised about checking reports of explosions and earthquakes.

Mystified, the police investigated and discarded rumors that it had been caused by:

(a) A roller skating rink; (b) An earthquake; (c) A blast; (d) An airplane; (e) A windstorm; (f) An amateur radio operator; (g) A lion in the Brooklyn Prospect Park zoo; (h) A tidal wave; (i) The Brooklyn Dodgers.

Scientists at Fordham University said no earth shock or explosion had registered on the seismograph there. The weather bureau reported no thunder.

A young girl said the noise sounded like "surf dashing against a rock-bound shore." That only obscured the issue further.

King Honors American For Part in Ship Rescue

OSLO, Norway, Jan. 10 (AP).—King Haakon today appointed Capt. Clifton Smith of the American steamer Schodack a Knight of St. Olaf in recognition of his part in the rescue of the passengers and crew of the Norwegian steamer Smaragd in the Atlantic Ocean Dec. 23.

(The United States Maritime Commission previously had commended Captain Smith for the rescue.)

Anti-Semitism Raised in Blast At Frankfurter

Borah, Angered, Denounces Witness for Reference At Senate Group's Hearing

WASHINGTON, Jan. 10 (AP).—An oblique attack on the nomination of Prof. Felix Frankfurter to be an associate justice of the United state Supreme Court—a reference to Jews—was choked off today at a Senate hearing with a wrathful denunciation by a leading Republican —Senator William E. Borah, of Idaho.

Before a crowded chamber in which a Senate judiciary subcommittee started hearings on President Roosevelt's appointment of the famous Harvard liberal, the Idaho senator demanded that all allusions to semitism be omitted.

Collis O. Redd of Washington, representing the National Crusaders of America, was the first witness to testify in opposition to Frankfurter's confirmation by the Senate. He started to quote from newspaper articles on the so-called "Jewish question."

Senator Borah interrupted him immediately.

"Are you here opposing Frankfurter on the ground that he is a Jew?" the senator demanded.

"No," Redd replied in an abashed tone.

"Then," Borah snapped, "you

(Please Turn to Page 4, Column 2)

Steele Plans Revision Of Senate Committees

President Pro Tem David Wilmer Steele of Ocean View announced today he intends to revise the list of State Senate standing committees, as a result of the election of Edward Abrahams, Jr., in the Second Senatorial District yesterday.

He pointed out that if the committees were not revised, the representative of the Second Senatorial District of this city would not be on any of them.

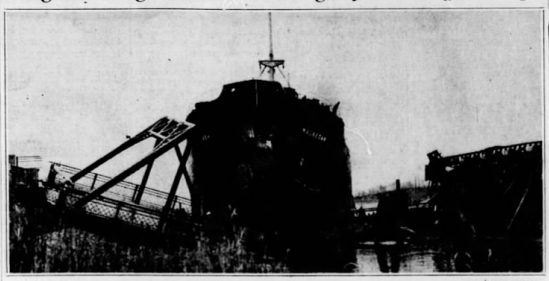
Grand Jury Acts In Probe of 14 Political Leaders

HARRISBURG, Pa., Jan. 10 (AP).—A Dauphin County grand jury, resuming its investigation of campaign charges against 14 state Democratic leaders, took up today the problem of what portion of the charges it would consider next.

The jurors already have indicated they would like to continue looking into a report that sub-standard gravel was used on highway projects in Erie and Warren Counties.

The gravel case brought from the jury Saturday its first indictment. The true bill accused David L. Lawrence, secretary of the commonwealth and state Democratic chairman, of blackmail conspiracy to "cheat and defraud" the state.

Freighter Caught Fast in Wreckage of St. Georges Bridge



—By Staff Photographer.

Her prow aground, the government-owned freighter Waukegan is caught fast in the wrecked superstructure of St. Georges Bridge, with one man missing and another seriously hurt after the ship crashed into the bridge on this morning. Highway and canal traffic was disrupted. Robert Quinn, bridge tender, was believed drowned as the control house (to the right of the boat) which fell into the water. William Oakes, government inspector, was thrown clear of the twisted girders, but both his legs were broken.

—Photos by W. Lyle Mowatt.

Engineers say it will take two or more weeks to remove the twisted structure of the bridge from the canal. The picture at the right shows the center span in the water. At the left is the Waukegan aground below the bridge pilings.

New Deal Gets Congress Test In WPA Votes

House Committee Due To Slash Appropriation, But Hopkins' Victory Is Seen

WASHINGTON, Jan. 10 (AP).—Congressional economy advocates and critics of "politics in relief" moved rapidly today toward an initial showdown with Roosevelt forces over the Works Progress Administration.

Interest in the outcome was heightened on Capitol Hill by the fact that it will afford the first test of the President's strength in both House and Senate.

On the House side, the issue was drawn by Mr. Roosevelt's request for

Britain Backs France Against Duce's Claims

French Cabinet Told London in Agreement With Daladier Government to Reject Any Demand By Italy for Share of Empire

PARIS, Jan. 10 (AP).—An agreement between France and Britain to reject any Italian territorial demands for a share in the French empire was announced to the French cabinet today by Foreign Minister Georges Bonnet.

Following a cabinet meeting at the Elysee Palace, shortly before British Prime Minister Chamberlain and Foreign Secretary Viscount Halifax were to reach Paris on their way to Rome, it was disclosed that Bonnet told his colleagues he had received assurance of "the complete accord of the London cabinet with the French point of view."

This, Bonnet said, had been conveyed to him last night by Sir Eric

Roosevelt Plans Caribbean Cruise To Review Fleet

WASHINGTON, Jan. 10 (AP).—President Roosevelt, it was learned authoritatively today, has decided

Vets Will Press For Enactment Of Civil Service

Legion and V. F. W. Seek Preference for Former Soldiers in State Jobs

The Delaware American Legion will sponsor a bill in the legislature, setting up a civil service or merit system for state employes.

The legion's executive committee at a meeting in Selbyville last night approved a report of the legislative committee recommending the bill.

The proposed law would provide for a five-point preference for veterans who apply for state jobs, a 10 per cent preference for disabled veterans and the waiving of any age limit for veterans.

(Pa.—Democratic

Attempt to Slay Carol Reported

Iron Guard Plot to Kill Ruler With Bomb Is Related in London

LONDON, Jan. 10 (AP).—The diplomatic correspondent of the London Daily Telegraph reported today that serious attempt has been made against the life of King Carol of

2 Men in Tower As Bridge Falls At St. Georges

Robert Quinn, Tender, Believed Dead in Tangled Wreckage of Span After 395-Foot Freighter Rams Structure When Rudder Fouls; Federal Inspector Thrown Clear, But Both His Legs Are Broken; Rescued by Sailors From Canal Waters

Waukegan Was Headed West Through Waterway as It Smashed Into Lift Span

Impact Sends Control Room Down Over Steel Girders; Truck Driver Says Sound of Crash Could Be Heard Three-Quarters of Mile Away; Quinn Believed to Have Been Killed or Drowned; Traffic on Highway Tied Up

A bridge tender was reported killed and the government inspector injured this morning when the 395-foot freighter Waukegan crashed into the bridge at St. Georges, toppling the steel structure into the Chesapeake and Delaware Canal.

The ship, its rudder fouled, smashed into the north tower, tumbling the tower and the center span into the water. The two men were in the control house on the center span.

Robert Quinn, 45-year-old bridge tender of St. Georges, was believed trapped in the lower. His body had not been recovered at noon today.

Man Thrown Clear

William F. Oakes, 45, also of St. Georges, was thrown clear of the control house, and was rescued by a cowboat from the Waukegan after clinging to the partially submerged structure for 20 minutes.

Oakes, with both legs broken, was rushed to St. Francis Hospital in Wilmington for an emergency operation.

Norman Sparks of St. Georges had gone off duty as bridge tender only a few minutes before the accident.

$300,000 Damage to Bridge

Damage to the bridge was unofficially estimated at $300,000. A falling girder tore a hole in the bow of the freighter above the waterline.

Clement Vaughn, a U. S. surveyor working nearby said the vessel apparently went out of control suddenly.

Both anchors were dropped, he added and the engines were ordered full speed astern, but the freighter swept on, jamming into the north tower.

Boat Bound For Baltimore

The tower crumpled, splashing with a roar into the canal, 25 feet deep at that point. It pinned the ship's prow.

With it went the roadbed, lifted

(Please Turn to Page 10, Column 1)

Canal Bridge Cost $500,000; Opened in 1926

Federal Government Built Span to Replace Wooden Swing; Took 21 Months

The St. Georges bridge across the Chesapeake and Delaware Canal was constructed by the federal government at an approximate cost of $500,000.

It was a vertical concrete and steel bridge, replacing an old wood swing span.

Construction was begun in July, 1924, and it was open to traffic March, 1926.

The bridge was 450 feet long overall. The center of lift span, 208 feet long, was raised on cables from two 170-foot steel towers. The approaches were 120 feet long each. The lift span was raised by electric current with reserve gasoline apparatus in case of emergency. The mechanism was housed on the lift.

The two steel 170-foot towers realed partly on the low prospect and the canal end of the approaches.

The bridge roadway was 24 feet

(Please Turn to Page 10, Column 3)

Clipped By:

historicbridges

Thu, May 26, 2022

Copyright © 2022 Newspapers.com. All Rights Reserved.

Powered by Newspapers.com

Man Killed When Vessel Hits Bridge

(Continued)

like an elevator between the two towers for ships to pass, and the top section with the control house.

The Waukegan, commanded by Capt. John R. L. Reynolds and owned by the Maritime Commission, had entered the canal about dawn, and the accident occured at 8:30 o'clock.

It was bound for London via Baltimor with a cargo of grain.

One eyewitness declared "there was a terrible noise, and the whole thing seemed to collapse. The bridge structure fell on the forward part of the ship."

A truck driver said he heard the sound three quarters of a mile away.

Quinn was believed either killed in the crash, or to have drowned as he struggled to free himself.

The two men in the control cabin plunged more than 150 feet down into the water. The bridge when lowered is 50 feet above the water level.

Traffic on the DuPont Boulevard was forced to detour. Telephone communication was disrupted when a cable was apparently torn by the wreckage.

Three Investigations Launched

U. S. Army Engineers declared that even "if we have luck it will be at least two weeks" before the waterway, one of the principal canals in the East, can be reopened for traffic.

Four investigations loomed, one by army engineers, a second by state police, the third by Coroner James F. Hearn and the fourth by the Maritime Commission.

Engineers said the bridge is valued at about $500,000.

Auto Traffic Detoured

Automobile traffic will be forced to detour for months, it was said.

The northern end of the span was a mass of twisted girders. The superstructure on the southern end was also twisted.

Replacement of the structure will cost roughly $300,000, said J. W. Fairbrother, engineer of J. A. Bader & Co. He said the superstructure could not be salvaged, but the abutments and piers were still left.

The company did major concrete work on abutments and piers in 1936.

A counterbalance weight of 22 tons of steel and iron crashed down through the ironwork on the southern end of the bridge. The northern approach and center span were gone, with a noticeable sag in the southern approach.

The Waukegan struck with such force that it moved the bridge 30 feet—its exact width—westward.

The concrete roadbed of the bridge itself must be recovered from the canal bottom before water traffic can be resumed, engineers added.

The steel-plated Waukegan was built under wartime construction by the government in 1919. Its gross tonnage was 6,208. It had a draught of 17.5 feet.

Town Divided

St. Georges found itself a town divided, with no passage across the river except by small boats.

An engineering employe said a pontoon bridge might be thrown across the canal for foot and lighter traffic, to join the village now cut in half.

Three blocks from the scene Quinn's wife and children waited in their home, while firemen made plans to drag the canal for his body.

A U. S. Engineering tug, derrick, and smaller boat stood by.

Captain of Boat Silent

Captain Reynolds, leaving his ship about 12:30 o'clock, said he had no statement, but had "profound regrets at the loss of life and injury to the other man because of the accident."

He conferred with Major C. W. Burlin, U. S. District Engineer, C. W. Meyers, resident engineer, and R. Y. Taggert, engineer of the sub-office at Chesapeake City.

Later he met with Lieut. Roger Elderkin of the state police and other policemen.

A former employe of the Wisconsin Bridge Company, who had worked on construction of the span, said rolling approaches—much as in ferry slips—had been suggested for all canal bridges, but the government did not see fit to construct them.

The high towers of the bridge were visible for miles around St. Georges.

State troopers directed by Capt. Henry C. Ray blocked off the highway for about five miles north of the crossing, diverting traffic by way of Summit Bridge and Middletown.

By early afternoon the prow of the vessel was still aground and caught fast in the tangled wreckage, and engineers said it would not be moved until inspected by the Steamship Inspection Service.

Light rain and overcast skies gave a sombre note as crowds of townspeople flocked to both sides of the canal.

Crowd of 7,000 Gathers

Some 7,000 persons jammed the small town this afternoon.

State police said that on the bridge at the time of the crash were Captain Reynolds who lives in Baltimore; F. Leroy Taylor of the Delaware River Association of Pilots; Cadet William Ingram of Norfolk, Va., wheelman, and Horton H. Harvey, fourth officer.

Residents in the vicinity of the bridge said it collapsed like a child's bridge set when stepped on.

Crumpled Like Tissue Paper

"You'd think it was more like tissue paper than steel," one resident told W. Lyle Mowlds of Dover, who was one of the first motorists stopped at the south side of the canal's bank after the accident.

Veteran canal men said the tide in the vicinity of the bridge is treacherous and that it was flowing strongly when the accident happened.

John A. Taylor, an eye-witness, declared he could feel the vibration of the collision where he stood 300 feet away on Main Street in St. Georges.

Folded Like Matchwork

"The tower folded up like matchwork. I heard the whistle blow for the bridge to go up, and saw the boat approaching."

Taylor added he was paying little attention until he heard a "crunch" when the ship's prow struck the structure.

J. P. Wilson of near St. Georges, a farmer, ran to the edge of the canal when the bridge toppled, and reached it just as Oakes came to the surface.

Oakes kept calling for help until the rowboat reached him, he said, and then with Earl Schwartz, and Gilbert Carrow, Wilson assisted in taking him from the boat to a light delivery truck.

State police escorted the truck in a dash to Wilmington.

Judge Charles L. Terry, Jr., described the scene at the bridge as "horrible." He arrived at the bridge about five minutes after the accident occurred, on his way to Wilmington where he is sitting in the Court of General Sessions.

John W. Carrow, who lives about a block and a half from the bridge, said he was aroused by "the terrific noise" when the accident happened. He said he did not know what had happened and rushed outside. Mr. Carrow is a juryman in the Court of General Sessions.

Frank W. Schroeder, clerk of the House of Representatives, rushed to the bridge from his home in Delaware City. He said that about 2,000 persons were there when he reached the bridge. "It was a terrible sight," he said. "Both towers, the lift and the superstructure were down. The abutment on the north side was completely submerged. There was a mass of entangled steel."

Lester Eye-Witness

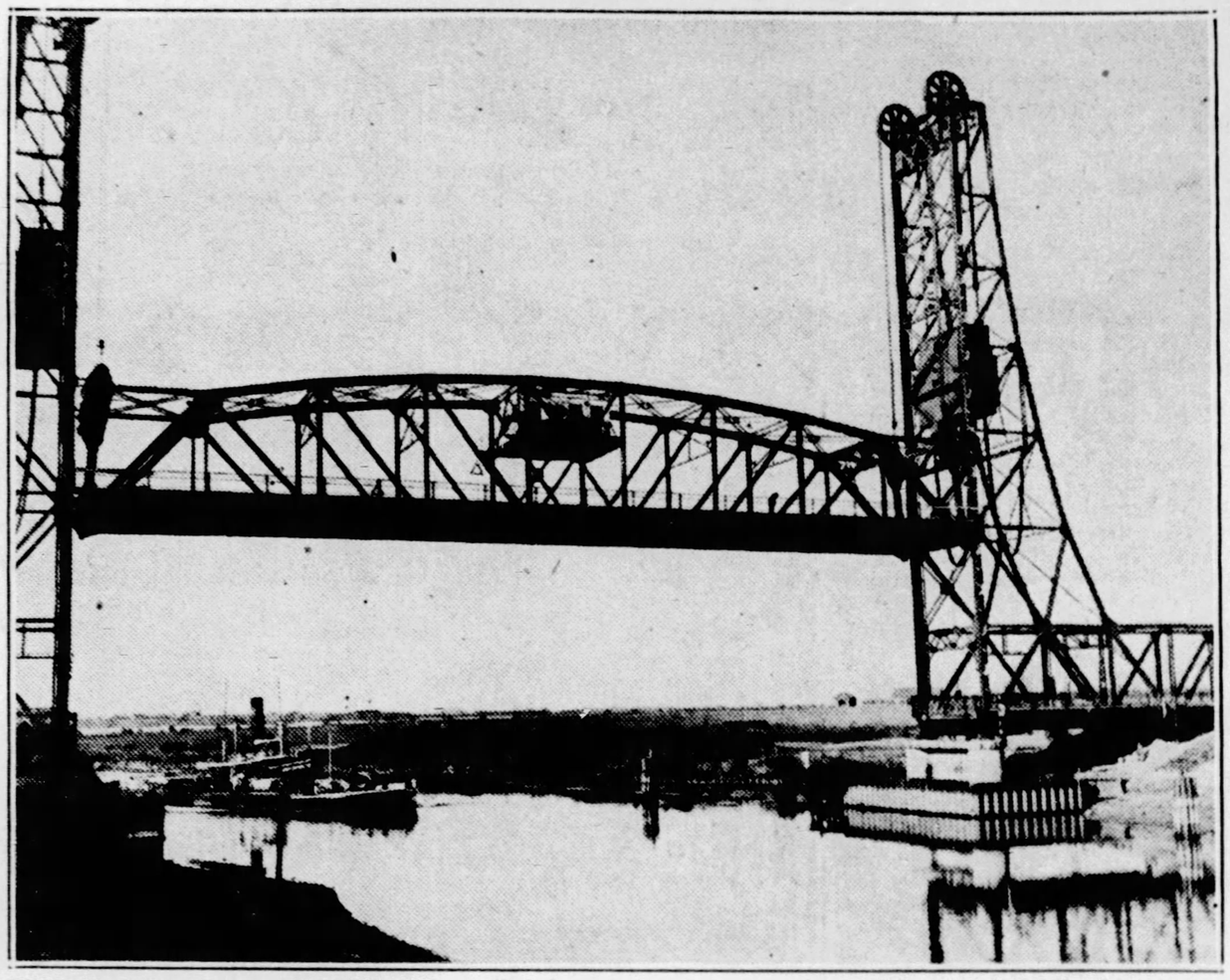
Claude N. Lester, president of the New Castle County Levy Court, who had just come out of Fred Sutton's store, about 275 yards from the bridge, said he heard the crash. "I looked in the direction of the bridge and saw streaks of fire, as the bridge went down," he said. "When it struck, the water splashed more than 15 feet in the air. It was a horrible sight." Lester lives at St. Georges.

Quinn is survived by his wife, Elizabeth, and two daughters, Odell, a student at Ursuline Academy, and Mrs. Dorothy Lutz, who lives at his home.

Oakes is married, with eight children: William, a freshman at the University of Delaware; Francis, student at H. Fletcher Brown Vocational High School; Alice, student at Ursuline Academy; Peggy, who attends Delaware City High School; Bobby, Dorothy, and Paul, pupils at Macdonough School, and Teresa, an invalid. His wife is Mrs. Teresa Oakes.

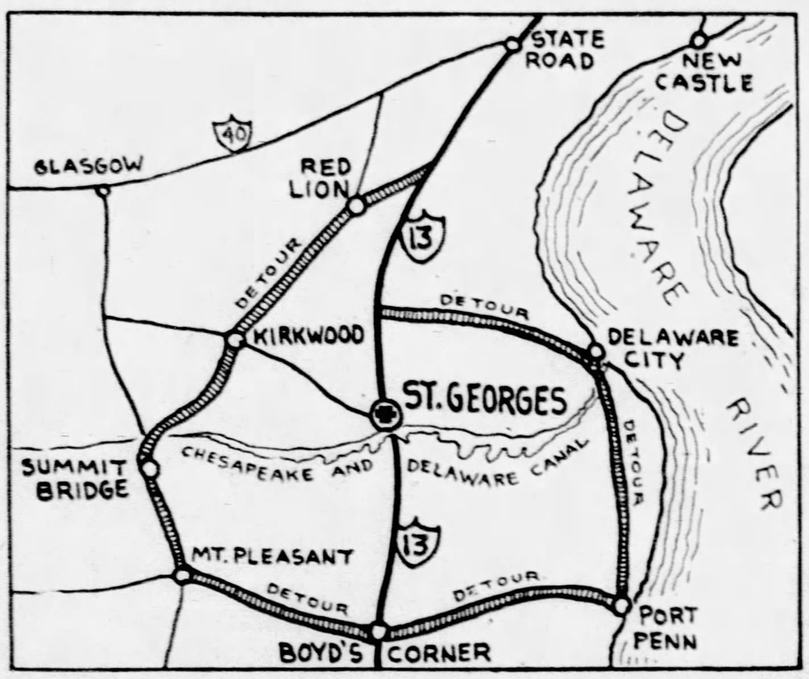
Doctors at St. Francis Hospital operated immediately when Oakes arrived there. His condition was "just fair."

St. Georges Bridge Before Crash



St Georges bridge over the Chesapeake and Delaware Canal, as it appeared before crashed into this morning by the steamer Waukegan. This bridge was reopened to two way traffic Nov. 19, 1936, after having undergone extensive enlargement, in connection with the widening of the waterway.

Detours for Motorists Around St. Georges



State police today gave three alternate routes which may be used to detour about the destroyed St. Georges Bridge over the C. and D. Canal.

Motorists from Wilmington can go south on the DuPont Boulevard to State Road, bear right and go on route 40 to Glasgow, turn left at Glasgow and go straight south to Summit Bridge, across the canal to Middletown and Blackbird.

Another route is from Wilmington down the Causeway to Wrangle Hill and then to Delaware City, across the Reedy Point Bridge to Port Penn, and turn right at Port Penn back to the DuPont Boulevard just south of St. Georges.

Motorists may also drive south to Tybout's Corner, turn right to Kirkwood, right at Kirkwood, proceeding to Howell's School, where a left turn is made, then straight south to Summit Bridge, to Middletown, and Blackbird.

Northbound traffic may use the same courses.

Bridge

(Continued.)

wide, with two sidewalks of four and one-half feet each. Steel plate treads were located on the roadway.

138 Feet Clearance

The lift had a vertical clearance of 138 feet to mean low water which at this point is 27 feet deep for vessels clearing the span. The clearance between the fenders or piers for vessels was 166 feet. The distance between the steel towers was 210 feet.

When construction was begun in 1924 cofferdams had to be constructed to hold back high water during the sinking of the piers. The pier and other concrete work was completed by the Dravo Contracting Company, and the steel bridge work by the Phoenix Bridge Company. Harrington, Howard, and Ash of Kansas City, were the architects.

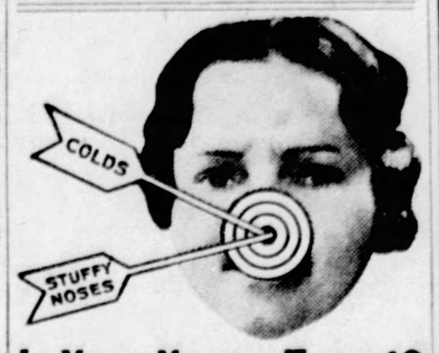
In 1937-38 longer shore approaches were built so that enlarging of the channel could be done.

The bridge was designed for the government by John Lyle Harrington of Kansas City, one of the outstanding engineers in the world. Harrington arrived in Wilmington last night on private business and registered at the Hotel DuPont.

Delaware City Phone Exchange Kept Busy

Officials of the Diamond State Telephone Company said two men were sent from the office here to Delaware City exchange today to assist operators there in clearing the traffic. The Delaware City exchange was flooded with calls after reports of the bridge's destruction.

Company officials said they had no reports of their cables under the canal being damaged. The cables, it was reported, are buried in the dirt under the canal and were functioning normally.



Is Your Nose a Target?

Is your nose irritated—is it clogged with mucus—does your throat get choked with phlegm—are you losing your sense of taste, smell, due to a cold? Are your breathing passages corked up? Get a tube or jar of Mentholatum today. Wake up tomorrow morning with a clearer head and feeling like a new person. This soothing balm—when applied in the nostrils—vaporizes almost instantly. Its active comforting vapors help break up the choking mucus, relieve irritation and local congestion and open up stuffy breathing passages. Mentholatum stays put and brings soothing comfort with every breath. Ask your druggist for Mentholatum today. In jars or tubes. 30¢. Copyright 1939, The Mentholatum Co.

I. ELMER PERRY CO.
"A Superior Fuel For Every Need"
Coal, Koppers Coke, Wood, Fuel Oil
29th & Boulevard Phone 3-3119

For ECONOMY and COMFORT
Use Pennsylvania ANTHRACITE COAL
DIAL 6348
And Get the Most of the Best for the Least!
BUILDERS SUPPLIES CORP.
205 W. 4th ST.

"DADDY, COME LET THE WORMS WARM YOU!"

Protect your family from tending furnace. Leave for work in the morning with the assurance that your furnace fire will be automatically and economically stoked all day. Come home at night to carefree warmth. Forget your furnace by remembering MOTORSTOKOR's steel worms! MOTORSTOKOR worms carry coal from the bin. They remove the ashes to sealed containers. They give steady heat whenever you need it.

We'd like to show you steel worms keeping a home always at the same comfort with the anthracite sizes that cost 1-3 less than you're use to.

May we show you the turning worms? They can be installed without interrupting home comfort.

Keil's
11th & TATNALL STS
19 Years of Reliable Service
Phone 8591 MOTOR STOKOR Open Eves

Pennsylvania ANTHRACITE is the 7 S

1 Real winter comfort comes from steady, even heat. Anthracite keeps the inside temperature of your home at any level you desire because it burns with a steady, dependable glow. Heat is always in reserve, always on tap, compared with "on-and-off" heat of other fuels.

2 Anthr
quiren
It gives 12
any Anthra
mostatic co
eral days
heaters. Automatic Anth
and remove ashes with

Newspapers by ancestry

Ten — Journal-Every Evening, Wilmington, Delaware, Tuesday, January 10, 1939

Man Killed When Vessel Hits Bridge

(Continued)

like an elevator between the two towers for ships to pass, and the top section with the control house.

The Waukegan, commanded by Capt. John R. L. Reynolds and owned by the Maritime Commission, had entered the canal about dawn, and the accident occured at 8:30 o'clock.

It was bound for London via Baltimor with a cargo of grain.

One eyewitness declared "there was a terrible noise, and the whole thing seemed to collapse. The bridge structure fell on the forward part of the ship."

A truck driver said he heard the sound three quarters of a mile away.

Quinn was believed either killed in the crash, or to have drowned as he struggled to free himself.

The two men in the control cabin plunged more than 150 feet down into the water. The bridge when lowered is 50 feet above the water level.

Traffic on the DuPont Boulevard was forced to detour. Telephone communication was disrupted when a cable was apparently torn by the wreckage.

Three Investigations Launched

U. S. Army Engineers declared that even "if we have luck it will be at least two weeks" before the waterway, one of the principal canals in the East, can be reopened for traffic.

Four investigations loomed, one by army engineers, a second by state police, the third by Coroner James F. Hearn and the fourth by the Maritime Commission.

Engineers said the bridge is valued at about $500,000.

Auto Traffic Detoured

Automobile traffic will be forced to detour for months, it was said.

The northern end of the span was a mass of twisted girders. The superstructure on the southern end was also twisted.

Replacement of the structure will cost roughly $300,000, said J. W. Fairbrother, engineer of J. A. Bader & Co. He said the superstructure could not be salvaged, but the abutments and piers were still left.

The company did major concrete work on abutments and piers in 1936.

A counterbalance weight of 22 tons of steel and iron crashed down through the ironwork on the southern end of the bridge. The northern approach and center span were gone, with a noticeable sag in the southern approach.

The Waukegan struck with such force that it moved the bridge 30 feet—its exact width—westward.

The concrete roadbed of the bridge itself must be recovered from the canal bottom before water traffic can be resumed, engineers added.

The steel-plated Waukegan was built under wartime construction by the government in 1919. Its gross tonnage was 6,208. It had a draught of 17.5 feet.

Town Divided

St. Georges found itself a town divided, with no passage across the river except by small boats.

An engineering employe said a pontoon bridge might be thrown across the canal for foot and lighter traffic, to join the village now cut in half.

Three blocks from the scene Quinn's wife and children waited in their home, while firemen made plans to drag the canal for his body.

A U. S. Engineering tug, derrick, and smaller boat stood by.

Captain of Boat Silent

Captain Reynolds, leaving his ship about 12:30 o'clock, said he had no statement, but had "profound regrets at the loss of life and injury to the other man because of the accident."

He conferred with Major C. W. Burlin, U. S. District Engineer, C. W. Meyers, resident engineer, and R. Y. Taggert, engineer of the suboffice at Chesapeake City.

Later he met with Lieut. Roger Elderkin of the state police and other policemen.

A former employe of the Wisconsin Bridge Company, who had worked on construction of the span, said rolling approaches—much as in ferry slips—had been suggested for all canal bridges, but the government did not see fit to construct them.

The high towers of the bridge were visible for miles around St. Georges.

State troopers directed by Capt. Henry C. Ray blocked off the highway for about five miles north of the crossing, diverting traffic by way of Summit Bridge and Middletown.

By early afternoon the prow of the vessel was still aground and caught fast in the tangled wreckage, and engineers said it would not be moved until inspected by the Steamship Inspection Service.

Light rain and overcast skies gave a sombre note as crowds of townspeople flocked to both sides of the canal.

Crowd of 7,000 Gathers

Some 7,000 persons jammed the small town this afternoon.

State police said that on the bridge at the time of the crash were Captain Reynolds who lives in Baltimore; F. Leroy Taylor of the Delaware River Association of Pilots; Cadet William Ingram of Norfolk, Va., wheelman, and Horton H. Harvey, fourth officer.

Residents in the vicinity of the bridge said it collapsed like a child's bridge set when stepped on.

Crumpled Like Tissue Paper

"You'd think it was more like tissue paper than steel," one resident told W. Lyle Mowlds of Dover, who was one of the first motorists stopped at the south side of the canal's bank after the accident.

Veteran canal men said the tide in the vicinity of the bridge is treacherous and that it was flowing strongly when the accident happened.

John A. Taylor, an eye-witness, declared he could feel the vibration of the collision where he stood 300 feet away on Main Street in St. Georges.

Folded Like Matchwork

"The tower folded up like matchwork. I heard the whistle blow for the bridge to go up, and saw the boat approaching."

Taylor added he was paying little attention until he heard a "crunch" when the ship's prow struck the structure.

J. P. Wilson of near St. Georges, a farmer, ran to the edge of the canal when the bridge toppled, and reached it just as Oakes came to the surface.

Oakes kept calling for help until the rowboat reached him, he said, and then with Earl Schwartz, and Gilbert Carrow, Wilson assisted in taking him from the boat to a light delivery truck.

State police escorted the truck in a dash to Wilmington.

Judge Charles L. Terry, Jr., described the scene at the bridge as "horrible." He arrived at the bridge about five minutes after the accident occurred, on his way to Wilmington where he is sitting in the Court of General Sessions.

John W. Carrow, who lives about a block and a half from the bridge, said he was aroused by "the terrific noise" when the accident happened. He said he did not know what had happened and rushed outside. Mr. Carrow is a juryman in the Court of General Sessions.

Frank W. Schroeder, clerk of the House of Representatives, rushed to the bridge from his home in Delaware City. He said that about 2,000 persons were there when he reached the bridge. "It was a terrible sight," he said. "Both towers, the lift and the superstructure were down. The abutment on the north side was completely submerged. There was a mass of entangled steel."

Lester Eye-Witness

Claude N. Lester, president of the New Castle County Levy Court, who had just come out of Fred Sutton's store, about 275 yards from the bridge, said he heard the crash. "I looked in the direction of the bridge and saw streaks of fire, as the bridge went down," he said. "When it struck, the water splashed more than 15 feet in the air. It was a horrible sight." Lester lives at St. Georges.

Quinn is survived by his wife, Elizabeth, and two daughters, Odell, a student at Ursuline Academy, and Mrs. Dorothy Lutz, who lives at his home.

Oakes is married, with eight children: William, a freshman at the University of Delaware; Francis, student at H. Fletcher Brown Vocational High School; Alice, student at Ursuline Academy; Peggy, who attends Delaware City High School; Bobby, Dorothy, and Paul, pupils at Macdonough School, and Teresa, an invalid. His wife is Mrs. Teresa Oakes.

Doctors at St. Francis Hospital operated immediately when Oakes arrived there. His condition was "just fair."

St. Georges Bridge Before Crash

St. Georges bridge over the Chesapeake and Delaware Canal, as it appeared before crashed into this morning by the steamer Waukegan. This bridge was reopened to two way traffic Nov. 19, 1936, after having undergone extensive enlargement, in connection with the widening of the waterway.

Bridge

(Continued.)

wide, with two sidewalks of four and one-half feet each. Steel plate treads were located on the roadway.

138 Feet Clearance

The lift had a vertical clearance of 138 feet to mean low water which at this point is 27 feet deep for vessels clearing the span. The clearance between the fenders or piers for vessels was 166 feet. The distance between the steel towers was 210 feet.

When construction was begun in 1924 cofferdams had to be constructed to hold back high water during the sinking of the piers. The pier and other concrete work was completed by the Dravo Contracting Company, and the steel bridge work by the Phoenix Bridge Company. Harrington, Howard, and Ash of Kansas City, were the architects.

In 1937-38 longer shore approaches were built so that enlarging of the channel could be done.

The bridge was designed for the government by John Lyle Harrington of Kansas City, one of the outstanding engineers in the world. Harrington arrived in Wilmington last night on private business and registered at the Hotel DuPont.

Delaware City Phone Exchange Kept Busy

Officials of the Diamond State Telephone Company said two men were sent from the office here to Delaware City exchange today to assist operators there in clearing the traffic. The Delaware City exchange was flooded with calls after reports of the bridge's destruction.

Company officials said they had no reports of their cables under the canal being damaged. The cables, it was reported, are buried in the dirt under the canal and were functioning normally.

Detours for Motorists Around St. Georges

State police today gave three alternate routes which may be used to detour about the destroyed St. Georges Bridge over the C. and D. Canal.

Motorists from Wilmington can go south on the DuPont Boulevard to State Road, bear right and go on route 40 to Glasgow, turn left at Glasgow and go straight south to Summit Bridge, across the canal to Middletown and Blackbird.

Another route is from Wilmington down the Causeway to Wrangle Hill and then to Delaware City, across the Reedy Point Bridge to Port Penn, and turn right at Port Penn back to the DuPont Boulevard just south of St. Georges.

Motorists may also drive south to Tybout's Corner, turn right to Kirkwood, right at Kirkwood, proceeding to Howell's School, where a left turn is made, then straight south to Summit Bridge, to Middletown, and Blackbird.

Northbound traffic may use the same courses.

COLDS
STUFFY NOSES
Is Your Nose a Target?
Is your nose irritated—is it clogged with mucus—does your throat get choked with phlegm—are you losing your sense of taste, smell, due to a cold? Are your breathing passages corked up? Get a tube or jar of Mentholatum today. Wake up tomorrow morning with a clearer head and feeling like a new person. This soothing balm—when applied in the nostrils—vaporizes almost instantly. Its active comforting vapors help break up the choking mucus, relieve irritation and local congestion and open up stuffy breathing passages. Mentholatum stays put and brings soothing comfort with every breath. Ask your druggist for Mentholatum today. In jars or tubes, 30¢. Copyright 1939, The Mentholatum Co.

I. ELMER PERRY CO.
"A Superior Fuel For Every Need"
Coal, Koppers Coke, Wood, Fuel Oil
29th & Boulevard — Phone 3-3119

For ECONOMY and COMFORT
Use Pennsylvania ANTHRACITE COAL
DIAL 6348
And Get the Most o' the Best for the Least!
BUILDERS SUPPLIES CORP.
205 W. 4th ST.

"DADDY, COME LET THE WORMS WARM YOU!"
Protect your family from tending furnace. Leave for work in the morning with the assurance that your furnace fire will be automatically and economically stoked all day. Come home at night to carefree warmth. Forget your furnace by remembering MOTORSTOKOR's steel worms! MOTORSTOKOR worms carry coal from the bin. They remove the ashes to sealed containers. They give steady heat whenever you need it.
We'd like to show you steel worms keeping a home always at the same comfort with the anthracite sizes that cost 1-3 less than you're use to.
May we show you the turning worms? They can be installed without interrupting home comfort.
Keil's
11th & TATNALL STS
19 Years of Reliable Service
Phone 8591 — MOTOR STOKOR — Open Eves

Pennsylvania ANTHR[ACITE] is the 7 s[...]
COMFORT
1 Real winter comfort comes from steady, even heat. Anthracite keeps the inside temperature of your home at any level you desire because it burns with a steady, dependable glow. Heat is always in reserve, always on tap, compared with "on-and-off" heat of other fuels.
CONVENIENCE

Clipped By:
historicbridges
Thu, May 26, 2022

Copyright © 2022 Newspapers.com. All Rights Reserved.

POWERED BY Newspapers.com