



U. S. Engineers photo

Fig. 1. Pentagonal in shape with each side 921 ft. long, the War Department's office building has 4,000,000 sq. ft. of space.

Planning the World's Largest Building

Contents in Brief—To concentrate most of its workers in the Washington, D. C., area in one structure, the War Department is now completing an office building that has 4,000,000 sq. ft. of floor space. Five-sided or pentagonal in shape the reinforced-concrete structure is five stories high and in some areas has both a basement and sub basement. The offices are laid out as concentric rings about a six-acre central court. Thickness of the building from the outside to the court is 386 ft. and this distance is broken up by light courts. Each of the five exterior sides is 921.6 ft. long while the sides around the inner court are 360.8 ft. long. Pedestrian circulation within the building is by means of ramps leading from floor to floor and by radial corridors on each floor that branch out much as spokes of a wheel from the main corridors encircling the inner court.

ONE of the most noted structures to be built as a part of the war program is the office building being completed at Arlington, Va., to accommodate most of the War Department office workers in the Washington, D. C., area. That this huge structure, which is known as the Pentagon Building because of its shape, was planned and constructed in slightly more than a year is a great tribute to the architects, engineers and construction men who made this accomplishment possible.

Believed to be the largest building in the world, the structure is located on a site of more than 400 acres across the Potomac River from Washington, D. C., partly on the old Washington airport and about a mile south of the Lincoln Memorial. Preliminary concepts of the building were formulated late in July of last year, the site was decided upon Sept. 8, the general contract was approved Sept. 8, and construction was begun Sept. 11. Progress was so rapid that

the first permanent offices were available on April 28, of this year, and completion of the entire structure is set for Nov. 15.

Knowing that such a rapid program was to be necessary, one of the first acts of the War Department engineers in charge was to bring together a planning and design group of some 350 architects and engineers, many of whom were in private practice and well known for their abilities and accomplishments. That this was a wise choice was proved by the results obtained.

Site selection a big problem

An early task of this group was to aid in determining the best site for the new building. Two locations on the Washington side of the Potomac River in the District of Columbia were studied, one near Walter Reed Hospital and one near the Navy Hospital. Both of these sites were abandoned because of the difficulty and the great expense that could be ex-

pected in obtaining a sufficiently large area and because of the magnitude of the transportation problems, including greatly increased traffic loads on the streets in those areas and demands for extensive parking facilities. Next, five different sites on the Virginia side of the Potomac were considered, and the present location was chosen after President Roosevelt had conferred with Lt. Gen. Brehon B. Summervell, then head of the construction division of the Office of the Quartermaster General.

An Arlington site was decided upon for four reasons. First, because the federal government owned a large amount of land in that area, a site of more than 400 acres could be obtained, which was sufficient for a large building and accompanying facilities. Second, a good solution of the transportation problem was possible, since improvement of the existing highways and construction of other roads would provide a highway system, allowing separation of the heavy bus and truck traffic from passenger cars. Third, the site was sufficiently large for adequate and convenient parking for 8,000 cars, which was considered as important as providing suitable highway connections. Fourth, there is an increasing tendency for governmental employees to live in Virginia. There they are close to Washington and out of the congested area.

Therefore, by locating the building in Arlington, traffic difficulties in Washington would be reduced, as fewer people living in Virginia would