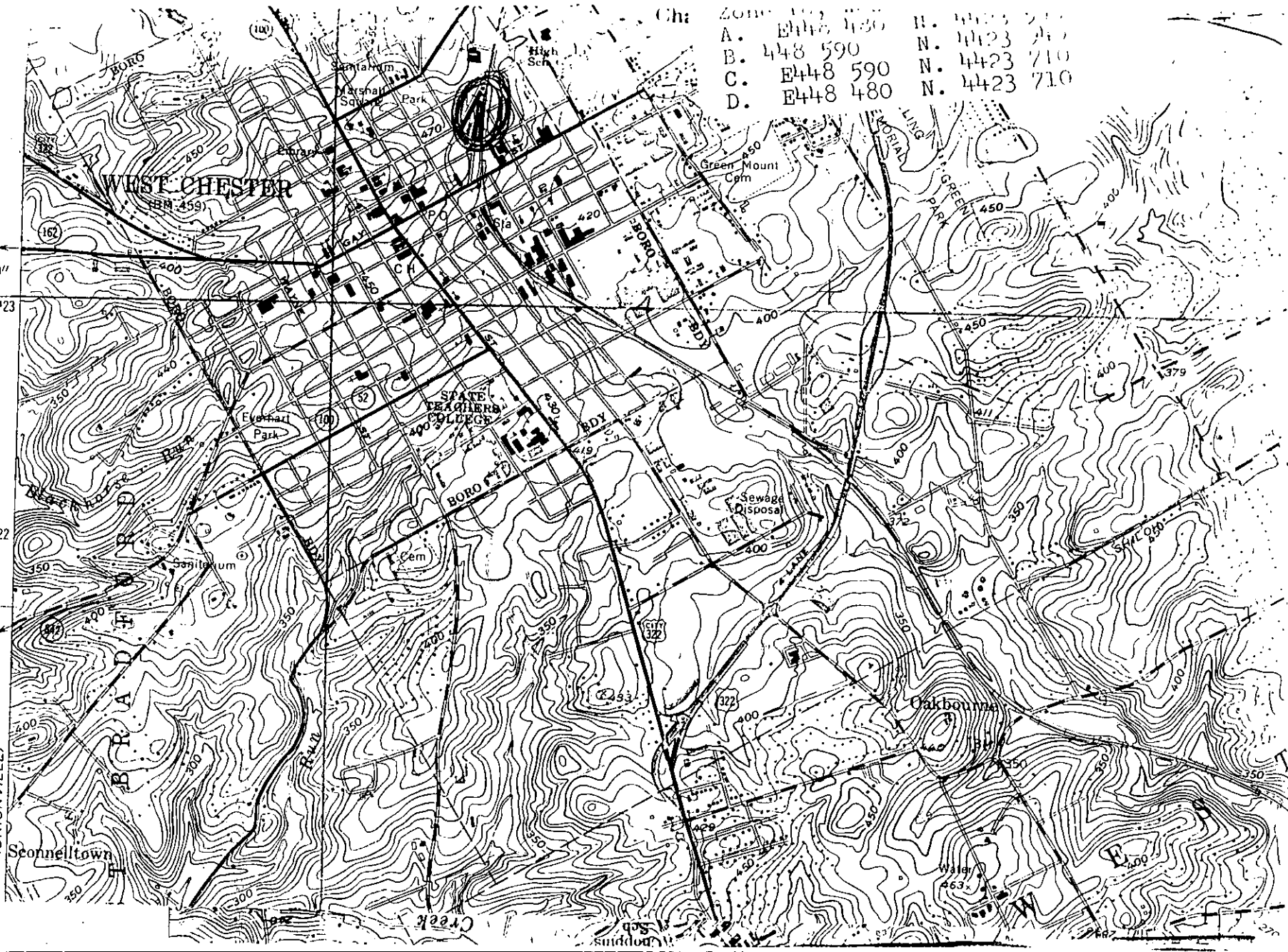


MARSHALLTON 3 MI.
COPESVILLE 1.7 MI.

UNIONVILLE 7.5 MI.
WAWASET 3 MI.

5863 (NW
(UNIONVILLE)



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See instructions in *How to Complete National Register Forms*
Type all entries—complete applicable sections

1. Name

historic Sharples Separator Works

and/or common Gumus Warehouse; Kauffman Warehouse

2. Location

street & number North Franklin and Evans Streets

N/A not for publication

city, town West Chester N/A vicinity of

state Pennsylvania code 42 county Chester code 029

3. Classification

Category	Ownership	Status	Present Use
<input type="checkbox"/> district	<input type="checkbox"/> public	<input checked="" type="checkbox"/> occupied	<input type="checkbox"/> agriculture
<input type="checkbox"/> building(s)	<input checked="" type="checkbox"/> private	<input checked="" type="checkbox"/> unoccupied	<input checked="" type="checkbox"/> commercial
<input type="checkbox"/> structure	<input type="checkbox"/> both	<input type="checkbox"/> work in progress	<input type="checkbox"/> educational
<input type="checkbox"/> site	Public Acquisition	Accessible	<input type="checkbox"/> entertainment
<input type="checkbox"/> object	<input type="checkbox"/> in process	<input type="checkbox"/> yes: restricted	<input type="checkbox"/> government
<input checked="" type="checkbox"/> complex	<input type="checkbox"/> being considered	<input checked="" type="checkbox"/> yes: unrestricted	<input checked="" type="checkbox"/> industrial
		<input type="checkbox"/> no	<input type="checkbox"/> military
			<input type="checkbox"/> museum
			<input type="checkbox"/> park
			<input type="checkbox"/> private residence
			<input type="checkbox"/> religious
			<input checked="" type="checkbox"/> scientific
			<input type="checkbox"/> transportation
			<input type="checkbox"/> other:

4. Owner of Property

a. Paul and Kathryn Gumus
name b. Robert and Nancy Kauffman

a. 400 E. Biddle St.
street & number b. 2230 DuPont Highway

a. West Chester
city, town b. Dover N/A vicinity of state a. PA 19380
b. DE 19901

5. Location of Legal Description

courthouse, registry of deeds, etc. Chester County Courthouse

street & number North High Street

city, town West Chester state PA 19380

6. Representation in Existing Surveys

title Chester County Historic Sites Survey has this property been determined eligible? yes no

date 1980 federal state county local

depository for survey records Pennsylvania Historical & Museum Commission/Borough of West Chester

city, town Harrisburg/West Chester state PA/PA offices

7. Description

Condition	Building 14	Check one	Check one	
<input type="checkbox"/> excellent	<input checked="" type="checkbox"/> deteriorated	<input type="checkbox"/> unaltered	<input checked="" type="checkbox"/> original site	
<input checked="" type="checkbox"/> good	<input type="checkbox"/> ruins	<input checked="" type="checkbox"/> altered	<input type="checkbox"/> moved	date <u> N/A </u>
<input type="checkbox"/> fair	<input type="checkbox"/> unexposed			

Describe the present and original (if known) physical appearance

The Sharples Separator Works is a nineteen-unit industrial ensemble which relates to two tax parcels on a five-acre triangular plot in West Chester's northeast quadrant. The principal parcel of 4.7 acres, tax parcel 1-5-291, contains eighteen of the buildings; the second parcel, tax parcel 1-5-290, approximates 4/10 of an acre and features a building which until 1934 was part of the Separator Works. The V-shaped configuration of the property and its dense industrial landscape is a dominant feature of the north-east area where nearby properties north and east of Chestnut Street are essentially residential in character. The works are best viewed from Evans and Franklin Streets.

Seventeen of the buildings at the Works are traditional timber, post-and-beam structures; one is steel and concrete, and one is a prefabricated metal on a metal frame. Of the majority, some have hipped roofs; some, roofs of low pitch. Others sport monitors which rise above the relatively low-scaled skyline. Commonality is the key strength of the low-keyed chiaroscuro use of brick. Bricks identify pilasters which set up repetitive "bays;" bricks set up in three or four courses of corbelling work with bricks imitating eave-line dentils to create ever-changing shadows at the first- and third-floor levels. Bricks set up in soldier courses crown the segmental arches of the lower windows, and soldier bricks become jack arches in the upper rectangular units. All in all, brick, whether as masonry massing or as decorative elements, establishes the character of this unique landscape.

The vitality of the brickwork works hand-in-hand with the plan of the complex where the heart of the environment is determined by the core-like placement of the machine shops relative to the elongated alignments of the foundry and storehouses.

Three brick machine shops (Buildings 4, 6, and 16) are located in the yard, whereas the foundry (Building 20) and the storehouses (Buildings 8, 9, and 10) serve as flankers, and establish the footprint for the property. The subsidiary buildings follow in suit, setting up long and short units in jack-straw relationships, which results in unusual angles and surprise vistas, all of which draw attention to the office or headhouse area.

Pronounced rectangles add another dimension to the apex of the property where the corners of four buildings, including two early machine shops, abut to form a light-well courtyard inside Buildings 4, 6, 7, and 8.

A large proportion of the complex, i.e., Buildings 4, 5, 6, 7, 8, 9, 10, and 16, presently functions as warehouse space. Only two units, Buildings 1 and 2, serve largely as offices while six units, Buildings 11, 12, 13, 15, 20, and 21, house small industry. Buildings 17, 18, and 14 are vacant.

An inventory of all major units follows on Continuation Sheets 7A - 7D. This specifies present and original appearance and the functions known to have been assigned to each unit. All building numbers follow the numbers assigned by the Helrich survey of 1921 (Figure 1).

8. Significance

Period	Areas of Significance—Check and justify below					
<input type="checkbox"/> prehistoric	<input type="checkbox"/> archeology-prehistoric	<input checked="" type="checkbox"/> community planning	<input type="checkbox"/> landscape architecture	<input type="checkbox"/> religion		
<input type="checkbox"/> 1400–1499	<input type="checkbox"/> archeology-historic	<input type="checkbox"/> conservation	<input type="checkbox"/> law	<input type="checkbox"/> science		
<input type="checkbox"/> 1500–1599	<input type="checkbox"/> agriculture	<input type="checkbox"/> economics	<input type="checkbox"/> literature	<input type="checkbox"/> sculpture		
<input type="checkbox"/> 1600–1699	<input checked="" type="checkbox"/> architecture	<input type="checkbox"/> education	<input type="checkbox"/> military	<input type="checkbox"/> social/		
<input type="checkbox"/> 1700–1799	<input type="checkbox"/> art	<input type="checkbox"/> engineering	<input type="checkbox"/> music	<input type="checkbox"/> humanitarian		
<input checked="" type="checkbox"/> 1800–1899	<input checked="" type="checkbox"/> commerce	<input type="checkbox"/> exploration/settlement	<input type="checkbox"/> philosophy	<input type="checkbox"/> theater		
<input checked="" type="checkbox"/> 1900–1939	<input type="checkbox"/> communications	<input checked="" type="checkbox"/> industry	<input type="checkbox"/> politics/government	<input type="checkbox"/> transportation		
		<input checked="" type="checkbox"/> invention		<input type="checkbox"/> other (specify)		

Specific dates	1890, 1893, 1894, 1902 1906, 1907, 1908, 1909	Builder/Architect	William Burns (1893), Charles Warner (1902), Plummer Jefferis (1906), Lewis & Son George Scott (1906), Riley Brothers (1909)
Statement of Significance (in one paragraph)			

For West Chester, the expanse of turn-of-the-century factories and warehouses at the Sharples Separator Works represents the largest mechanized industrial environment ever built in the area. The property refers to the production of the Sharples Tubular Centrifugal Separator, the first American-invented and American-made cream separating machine. The Works established a world-wide reputation in its time and provided the prototype for today's renowned Sharples-Stokes industrial centrifuge. The intact Works thus attest to West Chester's prominence as a manufacturing and marketing center for the creamery industry, a business which developed in the 1880's only after machinery was introduced to butter making. Apart from local and national reference to industry and invention, the Separator Works refers to a local significance in relation to community planning and to architecture. With its three-sided property plan, its striking use of brick in massing and detail, and its unique arrangements of industrial units, the property enlivens West Chester's somewhat monotonous grid pattern; it also demonstrates an unusual way to make the most out of limited square footage when annexation of adjacent property may not be feasible. Most importantly, however, the Separator Works refers to a place which, in its time, claimed to be the largest such works in the world. As the precursor plant of the Sharples-Stokes centrifuge, the Sharples Separator Works emphasizes the value of the inventive developments which occurred at this site. Devotees of instant coffee, scientists developing life-saving drugs, technicians working with blood components, and engineers exploring for oil all use some modern form of the centrifuge which was first produced in America, here in West Chester.

A trained machinist with a feel for invention, Philip M. Sharples opened his first machine shop on North Walnut Street in West Chester in 1881. His early work included decorative iron fencing, iron water wheels, boilers, grain drills, and cider mills, but when he also added an agency for the Swedish deLaval cream separator, his business took on a new dimension which led to his developing "the largest separator works in the world" (Figure 4).

The mechanization of the dairy industry occurred rather rapidly in the 1880's as steam-operated separators, invented in Europe, were imported and set up in creameries established to house them. As agent for the Swedish deLaval separator, Sharples assembled the separators before delivering them. In so doing, he made several improvements, then obtaining patents. Both Philip M. and D. T. Sharples did a great deal of experimenting, and finally by 1883 they had developed the Sharples Tubular Separator, a centrifugal machine like the deLaval but with a lightweight bowl which could as easily be hand or machine operated, depending upon overall size. The early success of the Sharples Tubular Separator encouraged the company to move in 1890 from the modest machine shop on North Walnut Street to a site of about three acres formerly owned by the Pennsylvania Railroad, two blocks to the east. Added to this was a small property closer to Maple Avenue on the north, where the machine shops (Buildings 4 and 6) were built to work in tandem with a foundry constructed on the lower property.

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BUILDING-BY-BUILDING INVENTORY

Building 1 is a two-story, brick office building, the west section of which was constructed by 1896 when it was recorded as a storage building, 68' x 32' (Sanborn 1896). In 1902 it was recorded as having office space in the first floor (Sanborn 1902). In 1906 the building was almost doubled in size to expand the main office (L10-8-1906), and in 1909 it was recorded as it stands today, approximately 68' x 64', with the exception that in 1909 the east entrance, set between the original block and the north half of the addition, was inset to allow for an entrance court from Patton Avenue. This section has since been infilled, as have some of the south-side windows. See Plate 1.

Building 2 is a three-story, hip-roofed, brick building, 46' x 32'. It was probably built as a two-story structure in 1893 (L1-22-1893). Its roof was raised in 1894 (13-21-1894; L7-28-1894). In 1896 it was recorded as a three-story building, functioning on the first floor as an office (Sanborn 1896). In 1902, it still served in part as an office (Sanborn 1902). Even by 1909, after Building 1 had been enlarged, Building 2 continued to serve as an office on the first floor, with storage on the second and product finishing on the third (Sanborn 1909). Its function in 1921 was not recorded (Helrich 1921). See Plate 2.

Building 3 no longer exists. It had been a wood frame auto shed, built in 1906. In 1921 it was recorded as a frame structure, 52' x 20', located in the courtyard between Buildings 1, 2, and 4. See Figure 1.

Building 4 is a three-story, brick building, 32' x 100'. It was constructed in 1890 as a two-story, hip-roofed structure which served as a machine shop (VR8-18-1891). The roof was raised in 1894 (L7-28-1894), and in 1896, Building 4 was recorded as a three-story building with a machine shop on the first and second floors, and a paint shop on the third floor (Sanborn 1896). It was similarly recorded in 1909 (Sanborn 1909). In 1921, its function was not named (Helrich 1921), but it is assumed that it remained a machine shop. A relatively strong individual architectural statement, Building 4, features corbelling above the second floor, corbelling above the third floor, and it is finished by a box cornice. See Plates 2 and 3.

Building 5 is a hip-roofed, three-story brick building, 70' x 33'. No specific record of the construction date has been found other than it existed by 1909. In 1896, the building here was recorded as a woodworking shop, one story high (Sanborn 1896). In 1902 it was recorded as a wood shop (Sanborn 1902). In 1909, printing was done on the first floor, and the second and third floors were relegated to storage (Sanborn 1909). In 1921, its function was not named (Helrich 1921). Unlike Buildings 4 and 6, Building 5 does not evidence any added verticality; its three floors seem to have been built as a unit. The post-and-beam construction relates to joists which are about eight inches on center, suggesting the second floor carried heavy weights. See Plates 2 and 4.

Building 6 is a three-story, brick building, 96' x 33'. It was constructed in 1890 (VR8-18-1891), but, like Building 4, its roof was raised one story in 1894 (L7-28-1894). In 1896 it was recorded as a machine shop on the first and second floors, and a print shop above (Sanborn 1896). It is first provided graphic reference in a newspaper article in 1891 (VR8-18-1891). Again in 1898, it is shown illustrated in a company letter-

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head, together with Buildings 1, 2, 4, 5, and 7 (Figure 2). In 1901, a fire was reported in "the paint shop" (L1-12-1901). Presumably, this occurred either in Building 6 or in Building 4, its right-angled twin. No record of damage caused by this fire has been found. In 1902, Building 6 is again recorded as a machine shop on the first and second floors with a paint shop on the third floor (Sanborn 1902). In 1909, it was a machine shop with box storage, the paint shop having been removed to the new third floor of Building 9 (Sanborn 1909). In 1921 the function is not recorded (Helrich 1921). Like Building 4, this building provides strong architectonic interest. From the inner court, the double rows or corbels add to the strong shadows, thus enhancing the brickwork's vitality. See Plates 3, 5, and 6.

Building 7 is a two-story, brick building, approximately 48' x 33', constructed before 1896. In 1896 it was recorded as a testing room (Sanborn 1896). This probably referred to product testing, but could as well have referred to testing the newly-discovered potential of using the centrifugal principle to separate linseed oil. In 1902, Building 7 was recorded as a "oil house" (Sanborn 1902). In this regard, it is perhaps significant that the second floor is of concrete construction. In a c.1902 graphic, the building is identified as a power house, adjacent to which was a smokestack, the tallest of three stacks then associated with the landscape (Figure 3). Notably, its depth was several feet shorter than it is now; it did not connect with Building 6 as it does now. In 1909, the function of Building 7 was not recorded (Sanborn 1909); neither is it in 1921 (Helrich 1921). Visually, it serves as the east terminus of the inner yard. See Plate 5.

Building 8 is a three-story, brick building, 81' x 64', first recorded as a one-story building in 1902 (Sanborn 1902). In 1906 and 1907 it was part of the so-called "north wing" when the roof was raised and two stories added (L6-1-1907; L11-5-1907). In 1909, Building 8 was recorded as a box shop and packing house (Sanborn 1909). Its function was not recorded in 1921 (Helrich 1921). See Plates 2 and 6.

Building 9 is a three-story-high building, 188' x 64', on a limestone foundation. This features both open two-story spaces (Plate 8) and an infilled mezzanine. It was built in 1902 as a one-story warehouse. The roof was raised in 1907 to add the two-story height (L6-1-1907; L11-5-1907). Two rows of corbelling exist to indicate this change (Plate 2). The building is recorded as a store house and paint shop in 1909 (Sanborn 1909). It served a similar function in 1921 (Helrich 1921). One of the few surviving bits of machinery in the complex is in the west end of this building. This is a hoist which relates to areaway in the two-story-high flooring. See Plates 7 and 8.

Building 10 is a three-story, brick building, 228' x 64', built after 1902. The scars of the low-pitched roof of the early construction are visible in the west wall of Building 10. Its roof was raised in 1907 (L11-5-1907), and it is recorded in 1909 as a three-story box shop (Sanborn 1909). In 1921, it was a storehouse with paint shop (Helrich 1921). In 1934, the building began to function as a warehouse and shipping area for the Kauffman Furniture Company (L4-13-1934). In 1943, it was damaged by fire (L6-4-1943). Because a fire wall separates this property from Building 9, however, no further damage occurred. The interior has been largely rebuilt. See Plates 2 and 9.

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Building 11 is a one-story, brick building, 112' x 54', constructed by 1909. In 1909, it was recorded as a press room (Sanborn 1909). In 1921, it was also recorded as a press shop (Helrich 1921). See Plate 6.

Building 12 is a one-story, brick building, 50' x 52', constructed in the yard in 1906 as a blacksmith shop (L10-15-1906). It was recorded in 1909 as a forge with a dirt floor (Sanborn 1909). In 1921, it was also a forge (Helrich 1921). Together with Buildings 11 and 13, it marks the west side of a narrow accessway to the inner yard. See Plate 7.

Building 13 is an excavated, one-story, brick building, 96' x 54'. It was built after 1902 but before 1909 when it was recorded as a tinsmith shop with storage in the basement, and a machine shop on the first floor (Sanborn 1909). A new tinning furnace was installed at the Works in 1907, either in this building or Building 12. This furnace allowed the steam engines made for the factory-sized separators to be immersed at one time instead of having to be dipped in hot tin one side at a time. In 1921, Building 13 was recorded as a repair department and storage building (Helrich 1921). The building contributes to the strong industrial image as projected from Franklin Street. See Plate 11.

Building 14 is a two-story, four-sided, polygon constructed of concrete and steel. It has an exceptional angular character provided by the roof pitch and the skewing of the walls, the sides of which measure 70' x 40' and 70' x 60'. Its irregular form fits between two older buildings near the west side of the property at Franklin Street (Plate 10). The building was completed in 1909 (Sanborn 1909), replacing an old frame structure which had been used for the pickling process in the tinning tasks. Because of its concrete and steel construction, Building 14 was considered in 1908 to be "one of the best features of the place" (L12-8-1908), clearly indicating it represented an early local example of reinforced concrete construction. By 1921, it was recorded as the "tinning department" (Helrich 1921). Ironically, the very function for which it was intended ultimately destroyed the structural integrity of the building. It presently seems structurally unstable. See Plate 9.

Building 15 is a two-story, above-basement, brick building, 200' x 54', constructed in 1902 to serve the Sharples Dairy Supply Co. (Sanborn 1902). In 1909, it was recorded as a machine shop with casting space in the basement where the south end was at grade (Sanborn 1909). Installed here in 1902 was an automatic molding machine which made all sorts and sizes of castings mechanically (19-30-1902). In 1921, Building 15 was recorded as the "lower machine shop" (Helrich 1921). It is most visible from Franklin Street. See Plate 10.

Building 16 is a one-story, brick building, 230' x 60', with a monitor roof. When it was completed in 1902 (L5-13-1902; L7-3-1902), it was one of the longest buildings in West Chester (L5-29-1902). It extended south from the original (1890) shops, and is today connected to Building 6, an early machine shop. Building 16 is recorded in 1902 with its monitor roof (Sanborn 1902). A fire wall between this and Building 15 extended 3 feet above the roof (L6-24-1902). In 1921, this was the upper machine shop (Helrich 1921). Constructed of heavy timber with a great deal of glass to allow natural light, it survives as a typical machine shop space. See Plates 5, 6, and 11.

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Building 17 no longer exists. It was built in 1906 as an auto shed located near the tracks, opposite Buildings 4 and 6. In 1921, it was recorded as an "auto house," 103' x 22' (Helrich 1921).

Building 18 is a one-story, brick building, 24' x 40', constructed in 1906 (L10-15-1906). It first served as a sandhouse (Sanborn 1906), and in 1921 was part of the foundry power house (Helrich 1921). One of the smaller units in the rectilinear massing, this serves as the terminus to the foundry's long line, but it fails to enhance the large scale set by the foundry. Plate 12 shows this building in its original form. See also Plate 13.

Building 19 is a one-story, brick building, 98' x 40', constructed in 1902 (L11-8-1902). When new, it provided storage for coal used in the foundry boilers (Sanborn 1902). In scale and decorative treatment, it contributes little to the overall complex because it is rarely visible and rooflines have been changed. Plate 12 shows this building in its original form. See also Plate 13.

Building 20 is the foundry. An accumulated and extensive one- and two-story brick building, approximately 295' x 40', this could date in part to 1890 (L10-7-1889). It represents at least four generations of expansion, however, and more probably features material remnants of later construction eras. In 1894, when a new foundry was being constructed, the foundation walls were heavily rammed by dirt packed too tightly in the inside of the walls while they were "green," spreading them. The side facing the railroad bulged and the building had to be propped (L2-18-1894). The foundry was recorded in 1896 as 40' x 140' (Sanborn 1896). The building was improved in 1902 (L8-30-1902) when it was recorded as 140' x 40' with a west addition 63' x 38' (Sanborn 1902). In 1906, an extension, 40' x 70', was added, presumably replacing the earlier addition. This extended to the west along Patton Avenue to the Chestnut Street Bridge (L4-20-1906). During construction, a portion of the excavation caved in because "the earth [was] of a quicksilver nature" (L5-9-1906), but five months later, the addition was finished successfully (L10-15-1906). Differences in the type of stone used in the foundation and the foundation of the 1894/1902 core mark the change made by the 1906 construction (Plate 13), and the oblique angle taken by the end gables of this extension provide the Franklin and Chestnut Street crossroads with a sculptured bit of architecture (Plates 10 and 13). Building 20 as it stands today was completed in 1909 when an 88-foot addition, comprised of one- and two-story heights, was constructed north of the c.1894/1902 core (L6-16-1909; L9-25-1909; L10-23-1909). See Plate 14.

Building 21 is a metal-frame, metal-clad building, 40' x 50', adjacent to the foundry. It does not contribute to the "Separator" history of the complex. See Plate 10.

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By 1891, the two machine shops had been built on the northernmost property, and the business had an office in San Francisco, California, and a branch factory in Elgin, Illinois. By 1892, international orders were commonplace, indicating the first generation development of the complex had been realized. By 1896, the earliest foundry, a building approximately 30' x 160', was recorded close to the tracks of the Frazer line of the Pennsylvania Railroad; the machine shops (Buildings 4 and 6), an office (Building 2), and a warehouse (Building 1, in part) were recorded as a separate entity (Sanborn 1896). The company letterhead by 1898 showed the machine shop side of the complex, including the west half of Building 1, Buildings 2, 5, and 7, as well as the heart of the complex, i.e., the machine shops, or Buildings 4 and 6. Between Buildings 1 and 4 was a landscaped courtyard, complete with fountain, which provided public entrance to the office, or Building 2. No individual smokestacks are recorded; rather, high chimneys relate to Buildings 2 and 5, and notably, none are shown for 4 and 6, suggesting some artistic license may have been taken with the graphic (see Figure 2).

Although product diversification had been initiated by D. T. Sharples at the Elgin Works, the same business philosophy only became apparent at the West Chester plant in 1901 when the operations of the Elgin plant removed to West Chester. A new era was thus established at the beginning of the new century as the Sharples enterprise expanded its inventive production and plant development. The subsidiary, The Sharples Dairy Supply Co., specialized in mechanical milk testers, milking machines, and other dairy equipment; it was set up in Building 15. Because of lot restrictions, however, the building was constructed with 5,000 square feet less than had originally been planned, and the resultant lack of space required that a machine shop on N. Walnut Street be rented. With the new growth generally attending the plant in 1902, a 150-horsepower boiler and a high stack were also installed in 1902 (Figure 5). Presumably, this work related to Building 7. Other expansion in 1902 emphasized additions to the foundry (Building 20) which was doubled in size. Also added was the extensive machine shop, now Building 16. Overall, by 1902, the Works represented "the largest amount of floor space of any manufacturer in Chester County" (L6-20-1902). To facilitate shipping, a spur of the Pennsylvania Railroad was built on Patton Avenue, between the foundry and the machine shops (L11-19-1902).

Sharples and deLaval controlled the market at this time, but deLaval specialized in machines using a drum and disc operation whereas Sharples alone used the rotary tank or tubular method it had patented. Improvements on the tubular principle and the broadening of the range of separator sizes encouraged a still further expansion in 1906. Repairs were made, units enlarged, and buildings added. A sense of the intensity of the project is suggested in reports on repairs made to the principal smokestack in 1906. The upper fifteen feet of the seventy-five-foot stack was toppled in a windstorm in 1906, "largely because the stack had become rusted through from constant use for a number of years" (L4-24-1906). Research indicates that the stack had been in use less than four years.

Because of the spacial constraints established by the limited size of the lot, some part of expansion took the form, again, of raising some roofs to gain floor space. The roofs of the storehouses (Building 9 and 10) were raised in 1906 and 1907, and in some sections, according to Thomas Sharples, son of P.M. Sharples, the solutions tested certain established

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theories of engineering. When some parts of the brick walls were found to be too thin to support an added story, the walls were cut through about two or three feet up from the ground. By "putting short timbers through the openings and with screwjacks . . . a hundred or so jacks . . . the building was lifted from its foundations [and] pushed up ten or more feet. The lower walls were then built and the upper section lowered and bonded in place" (Sharples 1984). Overall, the roof raising project was directed by the company carpenter rather than a builder. Although pictures were taken to record the fact, they have been lost in transit (Sharples 1984).

Up until 1907, a portion of the property between the foundry (Building 20, in part) and the large machine shop (Building 16) had been a public road. This was Patton Avenue, earlier known as Boot Road, a state route established in 1789 to lead from Gay Street in West Chester to Phoenixville. In 1907, that section within the plant environs was closed, providing more land for Sharples' use. More development then occurred in the next two years until the Works as it presently stands, with the exception of Building 21, was completed in 1909 (Sanborn 1909). With the completion of the permanent construction attending the Works, the plant by 1909 was known as the world's biggest separator factory, and products were sold worldwide (L10-19-1909). The plant, in full operation, could support 1,000 men by this time. A company letterhead of 1916 shows that in addition to the West Chester Works, there were works in Toronto, Ontario, and in Harburg, Germany. There was also an office in the ten-story Sharples Building in Chicago (Figure 6).

Within the great age of constant expansion, the operation relied heavily on automatic machinery and mechanical equipment. Both vertical and horizontal transportation was attended to. As an example, a carrier, or enclosed overhead conveyor, was built between Buildings 10 and 16 to transport separator stands from the place where the machines were assembled to the area where they were attached and trimmed. The installation saved the work of more than ten men with wheelbarrows and radically increased operational efficiency. This feature, together with the smokestacks, steam tubes, and loading sheds, no longer exist, but signs of other carriers such as hoists and elevators survive in two locations. In Building 9, a hoist and cage was set up in the two-story first floor to transfer machines to the paint shop (see Plate 9), and in the west end of Building 2, an elevator was installed to transfer iron castings on trucks to the finishing shop above.

In the context of the inventiveness which was indispensable to the establishment, a concrete and steel building (Building 14) was constructed in 1909; significantly, this was soon after architect William Prichett had designed reinforced concrete elements for West Chester's Farmers and Mechanics Building, a six-story landmark financed by Philip M. Sharples, also president of the F & M Trust Company.

An inventor employee was an important member of the staff in the first decade of the twentieth century, and his work included product improvement. Employee machinists also perfected new inventions for use in plant operation. In 1908, a patent automatic drill press was integrated into the manufactory, adding to the inventive contributions made by the works.

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By 1915, P. T. Sharples spun off from the parent company to form the Sharples Corporation, the business which manufactured oil separators and then eventually applied high centrifugal force to other industries. The West Chester plant remained in operation, producing less separators but making electric refrigerators and other accessories (L3-29-1933). In 1931 Sharples claimed to be West Chester's principal employer, but by 1933, after having been in operation fifty years, the Works went into receivership, the victim of the economic climate as well as of changes in dairy processing. The Sharples Corporation continued, however. It exists today as the Sharples Stokes division of Pennwalt Corporation, and the company is the only domestic manufacturer of the tubular centrifuge.

In 1935, Sharples Separator Company was succeeded by the Esco Cabinet Company, manufacturers of refrigerated cabinets and electric coolers. Building 10 was sold in 1934 to Kauffman Brothers, a local furniture store, for use in storage and shipping. Integration of all the units in one manufacturing operation ceased at that time, and the plant for the last fifty years has housed several commercial and industrial enterprises. Sensitive adaptive reuse, thus, kept the enclave intact.

9. Major Bibliographical References

Coatesville Daily Record (CDR) as noted. "The Sharples Separator Co.," an exhibit
Daily Local News (L), items as noted in text. of memorabilia at West Chester University,
Land Records, Chester County Courthouse. Oct. 1983 - Mar. 1984.
Sanborn Perris Map Co., Insurance Maps of West Chester, 1896, 1902, 1910.
Sharples, Thomas to John Klein, communication as noted, June 20, 1984.

10. Geographical Data

Helrich, C.S. The Sharples Separator Co. (Machine Shop and Foundry), West Chester, PA, October 20, 1921.

Acreeage of nominated property 5.01 acres

Quadrangle name West Chester

Quadrangle scale 1:24000

UTM References

A

1	8	4	4	8	4	8	0	4	4	2	3	9	4	0
Zone	Easting				Northing									

B

1	8	4	4	8	5	9	0	4	4	2	3	9	4	0
Zone	Easting				Northing									

C

1	8	4	4	8	5	9	0	4	4	2	3	7	1	0
Zone	Easting				Northing									

D

1	8	4	4	8	4	8	0	4	4	2	3	7	1	0
Zone	Easting				Northing									

E

Zone	Easting				Northing									

F

Zone	Easting				Northing									

G

Zone	Easting				Northing									

H

Zone	Easting				Northing									

Verbal boundary description and justification Beginning at the northeast corner of Franklin and Chestnut Streets, following then north in the direction of Franklin Street to Evans Street, turning east on Evans Street and continuing to its intersection with Biddle Street, turning then south to the railroad right-of-way, the bounds then following the right-of-way

List all states and counties for properties overlapping state or county boundaries to the beginning.

state	code	county	code
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state	code	county	code
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11. Form Prepared By

name/title Alice Kent Schooler, Principal Architectural Historian

organization John Milner Associates, Inc.

date February 29, 1984

street & number 309 N. Matlack Street

telephone (215) 436-9000

city or town West Chester,

state Pennsylvania

12. State Historic Preservation Officer Certification

The evaluated significance of this property within the state is:

national state local

As the designated State Historic Preservation Officer for the National Historic Preservation Act of 1966 (Public Law 89-665), I hereby nominate this property for inclusion in the National Register and certify that it has been evaluated according to the criteria and procedures set forth by the National Park Service.

State Historic Preservation Officer signature _____

title _____

date _____

For NPS use only

I hereby certify that this property is included in the National Register

date _____

Keeper of the National Register

Attest:

date _____

Chief of Registration