



MERIT STUDENTS ENCYCLOPEDIA

WILLIAM D. HALSEY
EDITORIAL DIRECTOR
LOUIS SHORES
SENIOR LIBRARY ADVISOR

MACMILLAN EDUCATIONAL CORPORATION
NEW YORK

P. F. COLLIER, Inc.
LONDON and NEW YORK

Library of Congress catalog number 78-56516

Copyright © Macmillan Educational Corporation, 1979
also 1967, 1968, 1969, 1970, 1971, 1972,
1973, 1974, 1975, 1976, 1977, 1978

All rights reserved. No part of this book may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopying, recording, or by any information storage and retrieval system, without permission in writing from Macmillan Educational Corporation.

The pronunciation key in this encyclopedia is reprinted from the Thorndike-Barnhart dictionary series and is used with the permission of Scott, Foresman and Company.

Manufactured in the United States of America.

ALPHABETICAL ARRANGEMENT OF ENTRIES

The entries in the *Merit Students Encyclopedia* are arranged in a simple alphabetical order. The method of arrangement combines elements of the system used in most dictionaries with that used in telephone directories. Each entry begins with a heading in dark type. Some of these headings contain a comma; others do not. The basic principles of arrangement are listed below, including rules for placement of identical headings.

The alphabetical sequence is letter by letter.

air
air conditioning
aircraft
aircraft carrier
aircraft landing system
airedale terrier
airfoil

When headings contain words out of their usual order, a comma is used to indicate the change of order, as in

Alaska, University of
Alba, Duke of
Alger, Horatio

Such entry headings are arranged in alphabetical sequence only up to the comma.

Bryansk
Bryant, William Cullen
Bryant College

When words preceding a comma are the same in two or more consecutive entries, the order is determined by the arrangement of the letters following the comma.

Brooks, Phillips
Brooks, Van Wyck

When two or more entries have the same heading, the entries are placed in the following order: persons, places, things.

Hannibal (person)	Hercules (person)	Phoenix (place)
Hannibal (place)	Hercules (constellation)	phoenix (bird)

Rulers with identical names are listed alphabetically by the name of the territory ruled. Rulers with the same name and same realm are listed according to dates of reign.

Frederick IX (of Denmark)
Frederick I (of Holy Roman Empire)
Frederick II (of Holy Roman Empire)
Frederick II (of Prussia)

Popes are listed by dates of reign, and they precede rulers of the same name.

Paul VI (Pope)
Paul I (Emperor of Russia)

Other persons with identical names are listed according to date of birth.

Butler, Samuel (born 1612)
Butler, Samuel (born 1835)

Places with identical names are listed according to the importance of the political unit, in descending order.

New Brunswick (Canadian province)
New Brunswick (U.S. city)

When places of the same political unit have identical names, they are arranged alphabetically by location. Cities in the United States and Canada are always located in reference to states or provinces. Cities elsewhere are usually located in reference to countries.

Abilene (Kansas)	Abydos (Egypt)
Abilene (Texas)	Abydos (Turkey)

Things with identical names are arranged alphabetically according to the subject in which they are classified.

aberration, in astronomy
aberration, in optics

GUIDE TO PRONUNCIATION

Pronunciations in *Merit Students Encyclopedia* appear in parentheses following entry headings. Heavy and light stress marks are used after syllables to indicate primary and secondary accents. A heavy stress mark is used in words that contain one primary accent, such as **comet** (kom'it). Both heavy and light stress marks are used in words that have secondary as well as primary accents, as in **communication** (kə mū' nə ka'-shən). When two or more entries have exactly the same pronunciation, as with Paris the mythological hero and Paris the French city, the pronunciation is given only with the entry that appears first. Where possible, letters of the standard alphabet are used as symbols in the pronunciation system in preference to less familiar symbols. The symbols used are shown below with some words in which their sounds appear.

a	hat, cap	j	jam, enjoy	u	cup, butter
ā	age, face	k	kind, seek	û	full, put
ā	care, air	l	land, coal	ü	rule, move
ä	father, far	m	me, am	ū	use, music
		n	no, in		
b	bad, rob	ng	long, bring		
ch	child, much			v	very, save
d	did, red	o	hot, rock	w	will, woman
		ō	open, go	y	young, yet
e	let, best	ô	order, all	z	zero, breeze
ē	equal, see	oi	oil, voice	zh	measure, seizure
ēr	term, learn	ou	house, out		
		p	paper, cup		
f	fat, if	r	run, try	ə	represents:
g	go, bag	s	say, yes	a	in about
h	he, how	sh	she, rush	e	in taken
		t	tell, it	i	in April
i	it, pin	th	thin, both	o	in lemon
ī	ice, five	th	then, smooth	u	in circus

In pronunciations for entries describing foreign persons and places it is sometimes necessary to represent sounds that are not used in English. Such foreign sounds are represented by four special symbols, which are listed below. Each symbol is accompanied by a brief indication of how the sound it represents is produced.

Y	as in French <i>du</i> . Pronounce ē with the lips rounded as for English ü in rule.	N	as in French <i>bon</i> . The N is not pronounced but shows that the vowel before it is nasal.
œ	as in French <i>peu</i> . Pronounce ā with the lips rounded as for ō.	H	as in German <i>ach</i> . Pronounce k without closing the breath passage.

LATROBE to MASQUE

11

Latrobe, Benjamin Henry (lə trōb'), *American architect. Born Fulneck, near Leeds, England, May 1, 1764. Died New Orleans, La., Sept. 3, 1820.*

Latrobe was the leading American architect of the early 1800's. He started both the Greek and Gothic revivals in the United States. One of his most impressive structures is the Bank of Pennsylvania in Philadelphia, which he designed in the form of a Greek temple. He is also noted for his Bank of the United States (now the Philadelphia Custom House) and the Roman Catholic cathedral in Baltimore. His structures in Washington, D.C., include the outside porticoes of the White House and St. John's Church.

Latrobe came to the United States from England in 1795. By 1803 he had become so well known that Thomas Jefferson appointed him surveyor of the public buildings of the United States. When the U.S. Capitol was destroyed during the War of 1812, Latrobe supervised its rebuilding. He died of yellow fever while working on the New Orleans waterworks. *See also* GOTHIC REVIVAL; GREEK REVIVAL. *Percival Goodman

Latter-day Saints, Church of Jesus Christ of.
See under MORMONS.

Latter Day Saints, Reorganized Church of Jesus Christ of, the second largest religious denomination claiming to be the authentic continuation of the church founded by Joseph Smith, Jr., in 1830, in Fayette, N.Y. The church has about 215,000 members, of whom 90 percent live in the United States and Canada.

After Smith's assassination in Carthage, Ill., on June 27, 1844, a period of confusion and dispersal ensued among his followers. Brigham Young led a large migration to Utah in 1846-1847 and established what is known as the Mormon Church. In 1852 many of the congregations that remained in the Midwest formed what was later called the Reorganized Church of Jesus Christ of Latter Day Saints. From 1860 to his death in 1914, Joseph Smith III, son of Joseph Smith, Jr., served as Prophet-President of the church. After that time, leadership of the church passed to his descendants. Headquarters of the church moved to Plano, Ill., in 1865, to Lamoni, Iowa, in 1881, and finally to Independence, Mo., in 1920.

Fundamentals of belief are faith in God, in Jesus Christ as risen Lord, and in the Holy Ghost. Church doctrines are based upon the Bible and such extra-biblical scriptures as the *Book of Mormon* and the *Doctrine and Covenants*. Full membership is attained through baptism by immersion, followed by confirmation. The minimum age for baptism is eight years.

Administrative officers of the church are a first presidency, a council of 12 apostles, a presiding bishopric, and various other councils and administrators. There are two orders of priesthood, Melchisedec and Aaronic. The highest legislative assembly is the world conference, which is held biennially in Independence, Mo. *See also* MORMONS. *Richard P. Howard*

Latvia (lat'vi ə), *a major political subdivision of the USSR; bordering the Baltic Sea. Area 24,590 square miles (63,700 sq km). Pop. (1975 est.) 2,478,000.*

Latvia, officially the Latvian Soviet Socialist Republic (SSR), is the largest of the three Baltic States (Latvia, Estonia, Lithuania) annexed by the Soviet Union in 1940. From the 18th century, they had been parts of the Russian Empire, and they had gained independence after World War I. The United States does not recognize them as parts of the USSR.

Physical Geography. Latvia's low-lying coastline, bordered by pine-covered sand dunes, is deeply indented by the Gulf of Riga, an arm of the Baltic Sea. Most of the republic is a flat or gently rolling lowland area that rises less than 400 feet (120 meters) above sea level. There is a fertile central plain at the head of the Gulf of Riga. To the west and northeast of this plain are numerous hills and ridges of glacial origin. However, the highest of these hills is only 1,017 feet (310 meters) above sea level. Forests and woodlands cover more than 20 percent of the republic. Grasslands are also extensive, and marshlands, bogs, and nearly 3,000 small lakes are scattered throughout the country.



The principal river of Latvia is the Western Dvina, known as the Daugava in Lettish, which rises in the Valdai Hills, flowing northwestward through Latvia for almost 230 miles (370 km). It is used for floating logs to sawmills and as a source for hydro-electric power.

The climate of Latvia is characterized by long cold winters and short warm summers. Annual precipitation averages between 22 and 26 inches (560-660 mm), but is much greater in the hilly areas.

Economic Activities. The principal economic activities are agriculture and manufacturing. Other major activities include lumbering and fishing. Agriculture includes the cultivation of a variety of crops and the

raising of livestock, especially dairy cattle. Beef cattle, hogs, sheep, and poultry are also raised. The principal crops grown, oats, barley, rye, potatoes, and sugar beets, are used in part as livestock feed, together with hay and other fodder crops. Flax, used in making linen, is grown extensively in eastern Latvia. Fruit and vegetables are cultivated near large urban centers.

Manufacturing has developed rapidly since World War II. Latvia has few mineral resources, but it does have plentiful supplies of peat and of materials used in construction. Industrial activities are based primarily on Latvia's farm and forest products and on raw materials and semiprocessed goods from elsewhere in the Soviet Union. Power is supplied by hydroelectric plants along the Western Dvina and by thermal power stations fueled by peat.

The principal manufacturing activities are the production of machinery and the processing of agricultural products. Latvia is the leading Soviet producer of electric railroad passenger cars. Other manufactures include rolled steel, chemicals, ships and boats, trolley cars, farm machinery, telephone equipment, radio receivers, hydraulic turbines, and precision instruments. Manufactured goods based on farm output include meat products and other foodstuffs, leather goods, linen textiles, and linseed oil. The forests of Latvia supply raw materials for the manufacture of lumber, wood pulp and paper, matches, and furniture. Fishing and fish canning are important along the coast. The major transportation routes in Latvia converge on Riga, Liepaja, and Ventspils, the chief ports and principal industrial cities of the republic.

The People of Latvia. About 62 percent of Latvia's inhabitants are Latvians, or Letts, as they are some-

times called. About 27 percent are Russians, most of whom have settled in Latvia since World War II. The remainder are mostly Byelorussians, Poles, Lithuanians, and Ukrainians. The Latvians are a Baltic people closely related to the Lithuanians, and their language, Lettish, is classified with Lithuanian in the Baltic branch of the Indo-European language family. Russian is also widely spoken in Latvia. The traditional religion of the Letts is Lutheranism. However, Roman Catholicism predominates in Latgale, which is a region in eastern Latvia.

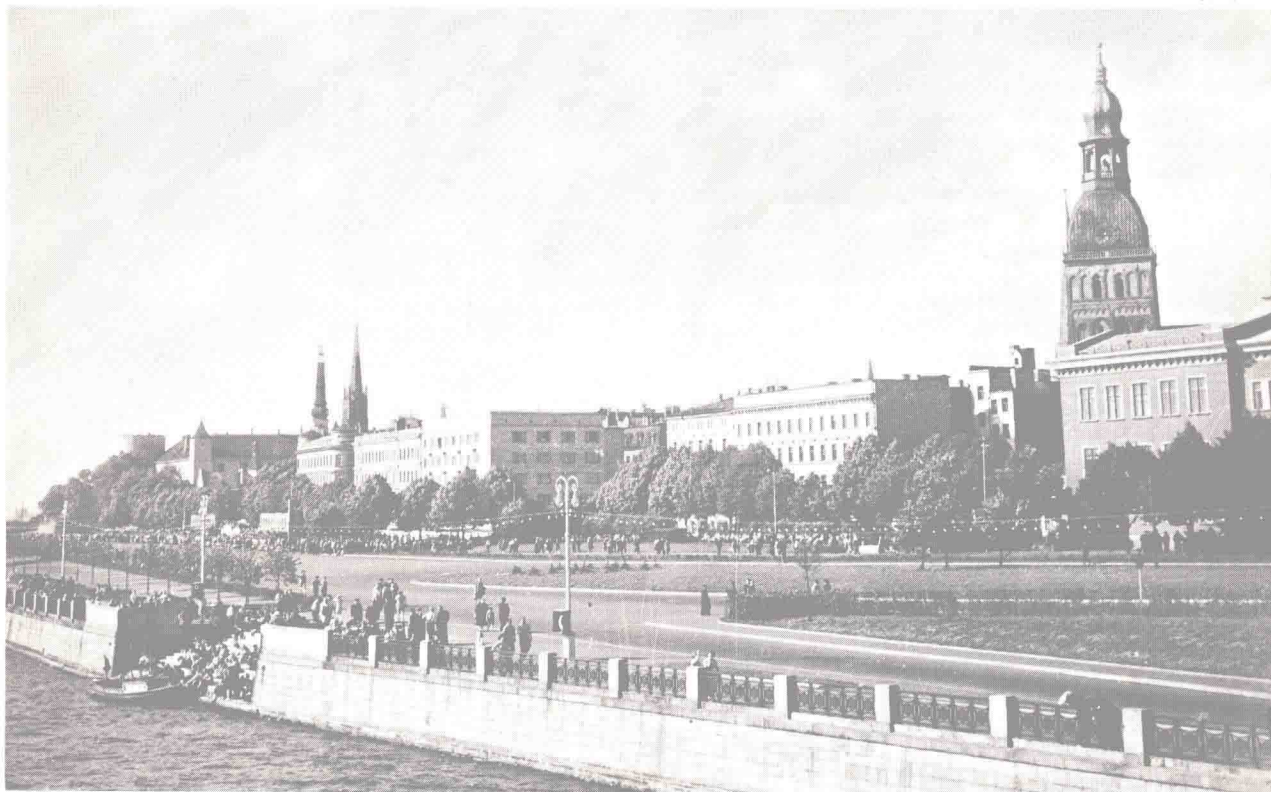
Before World War II, Latvia was primarily a rural country. The majority of the people now live in urban areas. The largest city is Riga, the capital and chief industrial city of Latvia, with a population (est. 1975) of 796,000. It is the leading Soviet port on the Baltic Sea after Leningrad. Other large urban communities, although far smaller than Riga, are Liepaja, Daugavpils, Jelgava, and Ventspils.

Education. Among the major schools of higher learning in Latvia are the state university, founded in Riga in 1919, and the Latvian Agricultural Academy, also in Riga. Many research institutes have been established in association with the Academy of Sciences of the Latvian SSR.

History and Government. Although the region that is now Latvia was populated in ancient times, little is known of its earliest inhabitants. The ancestors of the Latvians, or Letts, probably settled in the Baltic area after the 5th century A.D., pushed westward by the great Slavic migrations. They included three related tribes: the Latgals in the east, the Zemgals south of the Western Dvina River, and the Kurs in the west. The regions these tribes inhabited became

An embankment along the Western Dvina River in Riga, the capital of the Latvian Soviet Socialist Republic

SOVIET LIFE



known respectively as Latgale, Zemgale, and Kurzeme. The Livs, a Finnic tribe related to the Esths, or Estonians, inhabited the shores of the Gulf of Riga. The Livs also inhabited the area called Vidzeme, which is now northern Latvia. All four of these tribes gradually intermingled.

Foreign Domination. During the Middle Ages the Gulf of Riga and the Western Dvina became increasingly important trade routes, as commerce developed between the Russians in the east and the Germans and Scandinavians in the west. In the 12th century, German merchants and missionaries began to colonize the area near the mouth of the river and founded the city of Riga. A German bishop, Albert of Bremen, fortified Riga in 1201. He then organized the Livonian Knights, a German military and religious order dedicated to converting the Baltic peoples to Christianity. The knights, in union with the similar order known as the Teutonic Knights, conquered the Latvian region in the 13th century and gained control of what is now Estonia in 1346. For more than two centuries, Latvia and Estonia, known together as Livonia, remained under German domination. The native inhabitants became Christians and were reduced by the German landholders to the status of serfs. Riga prospered as a commercial center and in 1282 joined the powerful federation of German merchant towns known as the Hanseatic League.

In the 16th century the power of the Livonian Knights waned with the spread of the Protestant Reformation and the decline of the Hanseatic League. A Russian invasion of Livonia in 1558 disrupted the Knights' political control, and in 1561 they disbanded, but retained their personal landholdings. Subsequently, Latgale and Vidzeme, north of the Western Dvina, were incorporated into Poland. Kurzeme and Zemgale, south and west of the river, became the self-governing duchy of Courland, or Kurland, under the Polish crown.

Riga and Vidzeme passed under Swedish control in the 17th century. In the Northern War (1700-1721), they were conquered in turn by Czar Peter I of Russia. As a result of the partitions of Poland in the second half of the 18th century, Courland and Latgale also passed to Russia.

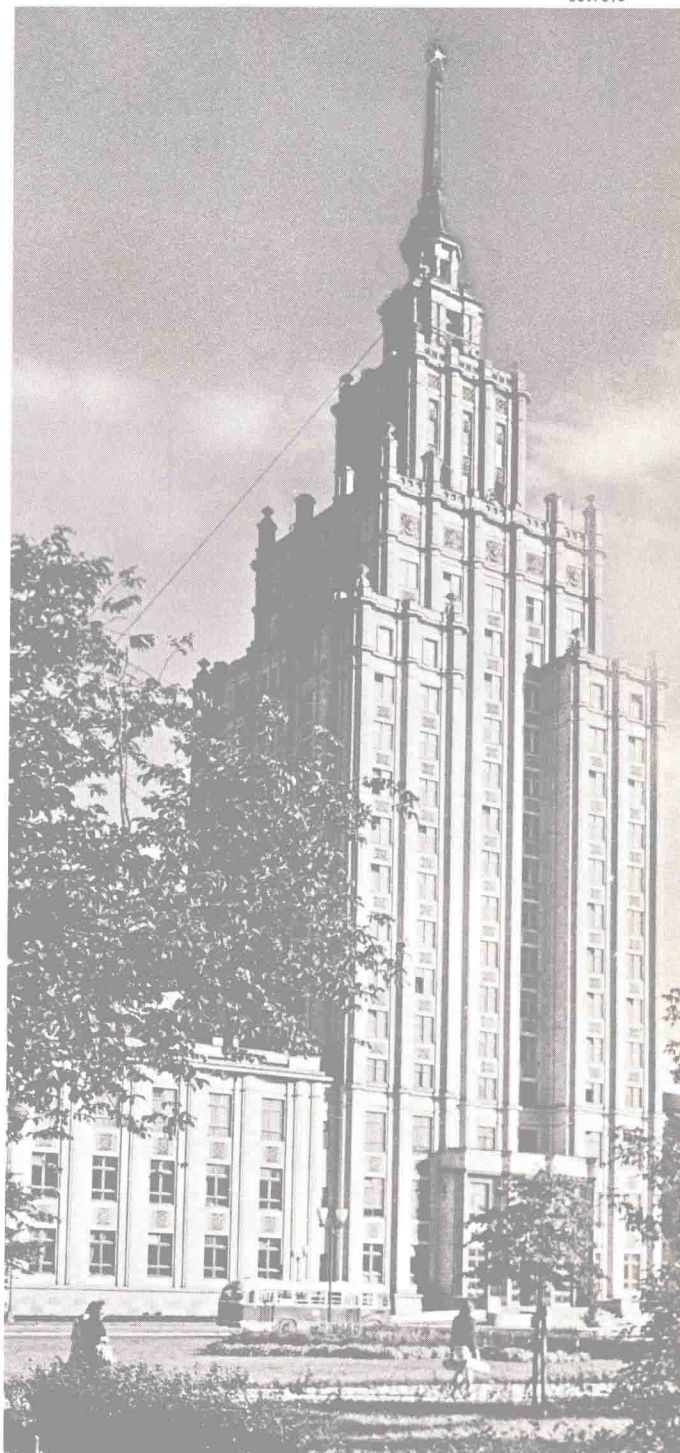
Rise of Nationalism. Under Russian rule the German landowning aristocracy, sometimes called the Baltic barons, were allowed to dominate the economic and social life of the Latvian region. Although most of the serfs were given their freedom by the 1820's, they were not permitted to own land or to settle in towns and engage in trade. These restrictions were gradually removed in the succeeding decades, and by the 1860's a Latvian national movement began to develop, based primarily on a new interest in traditional Lettish culture. The movement was countered by the czarist government, which initiated a policy of greater economic, political, and cultural control.

In the last half of the 19th century, Latvia enjoyed economic prosperity. Riga became the second most important Russian port on the Baltic Sea, and the ports of Liepaja and Ventspils were developed as outlets for wheat and other products of the Ukraine. Industrialization also advanced, creating a new working class that tended to support liberal political ideas. Strengthened by prosperity and working-class support, the Latvian national movement emerged as an effort for political independence.

Independent Latvia. During World War I, Latvia became a battlefield for German and Russian troops, and many Latvians fought with the Russian army. After the collapse of czarist Russia in the war and the success of the Russian Revolution of 1917, the Latvians organized a national council, which proclaimed Latvia independent on Nov. 18, 1918. Subsequently the country was again torn by strife, this time among Russian Bolsheviks, German forces, and Allied

The Academy of Sciences of the Latvian SSR, in Riga

SOVFOTO





MONKMEYER

The city of Cēsis, which lies in a farming region in northern Latvia, served as a seat of the Livonian Knights in the Middle Ages.

troops, each with some Latvian support. Finally, with British and Polish aid, the Russian and German troops were expelled from the country by early 1920. Under the terms of a peace treaty signed in 1920 the Russians renounced all rights to Latvia. A year later the new nation of Latvia was formally recognized by the other European powers and by the United States.

The Latvian constitution, adopted in 1922, provided for a republic with a president, a premier, and a single-house legislature, or Saeima. In 1920 a land reform law limited the size of estates to 123.5 acres (50 hectares). Holdings in excess of this amount were confiscated and distributed as small farms among the peasants, thus reducing the power of the Baltic barons. Latvia developed considerable foreign trade with Great Britain, Germany, and Poland.

The new nation failed, however, to attain political stability. Eighteen premiers held office between 1918 and 1924, and more than 20 political parties vied for control of the legislature. In 1934, Premier Karlis Ulmanis declared an emergency state of siege, dissolved the Saeima, and disbanded all political parties. Two years later he also assumed the office of president and ruled as dictator with the support of the army.

Soviet Control. On Aug. 23, 1939, less than two weeks before the start of World War II, the Soviet Union and Germany concluded a nonaggression pact, as part of which the Baltic States were secretly assigned to the Soviet sphere of influence. Latvia was subsequently forced to grant the USSR the right to establish military bases on its soil, and the German population was evacuated. Ulmanis was deposed and was later deported. In June 1940, Soviet troops occupied Latvia. A new Saeima, elected under Soviet supervision, applied for admission to the USSR. In August, Latvia was incorporated into the USSR as a constituent Soviet republic. From 1941 to 1944 the country was occupied by the Germans. Many Latvians were sent as forced laborers to Germany, and many others, especially Jews, were killed or imprisoned. Following restoration of the Soviet regime, however,

thousands of Latvians fled to Germany or other countries. In addition, thousands more were sent into exile in the interior of the USSR.

In the postwar period, Latvia slowly recovered from the great damage suffered during the war. The national economy was reorganized to conform with Soviet policies. Farms and peasant holdings were organized into collective and state farms. Industrial establishments were nationalized, and great efforts were directed toward further development of the industrial potential of Latvia.

*W. A. Douglas Jackson

Latvian Soviet Socialist Republic. See LATVIA.

Laud, William (lôd), *Archbishop of Canterbury from 1633 to 1645. Born Reading, England, Oct. 7, 1573. Died London, England, Jan. 10, 1645.*

Laud's effort to maintain elaborate forms of worship throughout the Church of England antagonized the English Puritans and was one of the main causes of the English Civil War. He also vigorously criticized the Roman Catholic view that Anglican bishops were not legitimate successors to the authority of the Apostles. Laud became president of St. John's College at Oxford University in 1611. He supported Charles I in his struggle with the English Parliament. In 1628 Laud was made Bishop of London, and the next year he became Chancellor of Oxford. As chancellor, he aided the growth of the university. In 1633 he became Archbishop of Canterbury.

Laud strongly opposed simplified Church ritual and decentralized Church government in both England and Scotland. His violent methods caused many English Puritans to flee to the New World. The Presbyterian Scots rebelled in what were termed the Bishops' Wars. When Charles summoned Parliament for support, the Puritan-dominated body promptly imprisoned Laud. During the ensuing Civil War, he was unjustly tried and beheaded on the charge of trying to overturn religion and law.

*Rev. Holt H. Graham, *Rev. Joseph M. Petulla



BROWN BROS.

Sir Harry Lauder was a popular music hall performer.

laudanum. See under OPIUM.

Lauder, Sir Harry (lôd'ər), Scottish singer and comedian. Born Harry MacLennan Lauder, at Portobello, Scotland, Aug. 4, 1870. Died Strathaven, Scotland, Feb. 26, 1950.

Lauder was the most popular entertainer in British music halls. Wearing a kilt and carrying a gnarled cane, he sang sentimental Scottish ballads and comic ditties. Many of his most famous songs were his own compositions, including *Roamin' in the Gloamin'* and *I Love a Lassie*. During World War I, Lauder entertained Allied troops and performed at charity benefits. In recognition of these services he was knighted in 1919. He was the first music hall performer to receive this honor. He also entertained British soldiers during World War II. His autobiography, *Roamin' in the Gloamin'*, was published in 1928. *Sigmund Spaeth

Laue, Max von (lou'ə, mäks fôn), German physicist. Born Pfaffendorf, Germany, Oct. 9, 1879. Died Berlin, Germany, Apr. 23, 1960.

Laue was awarded the 1914 Nobel Prize in physics for his work in X-ray crystallography. In 1912, Laue had proposed that if X rays were beamed through crystals, the pattern of the emerging rays would show their wavelengths. Since some of the rays are diffracted, or deflected, by passing between the layers of atoms, the position of the atoms within the crystals could also be found. Laue also did valuable work on the theory of relativity, quantum theory, and atomic structure. *Lyman Mower

laughing gas. See NITROUS OXIDE.

Laughton, Charles (lô't'ən), Anglo-American actor. Born Scarborough, England, July 1, 1899. Died Hollywood, Calif., Dec. 15, 1962.

Laughton was an outstanding stage and screen actor. He was especially noted for his film portrayals of character parts, including Nero in *The Sign of the Cross* and Captain Bligh in *Mutiny on the Bounty*. He won a 1932-1933 Academy Award for his performance as Henry VIII in *The Private Life of Henry VIII*.

After successfully appearing on the London stage from 1926 to 1931, Laughton came to the United States. He later became an American citizen. In 1951 he directed and acted in a memorable dramatic reading, *Don Juan in Hell*, from Shaw's play *Man and Superman*. Laughton joined the Shakespeare company in Stratford-on-Avon, England, for the season of 1959, playing Bottom in *A Midsummer Night's Dream* and the title role in *King Lear*. *Richard Griffith

laundry (lôn'dri), a commercial establishment where soiled clothing, linens, and other fabrics are washed. There are many specialized types of laundries, such as shirt laundries, diaper laundries, linen-supply laundries, rag laundries, and coin-operated laundries. The articles that are laundered are also called laundry.

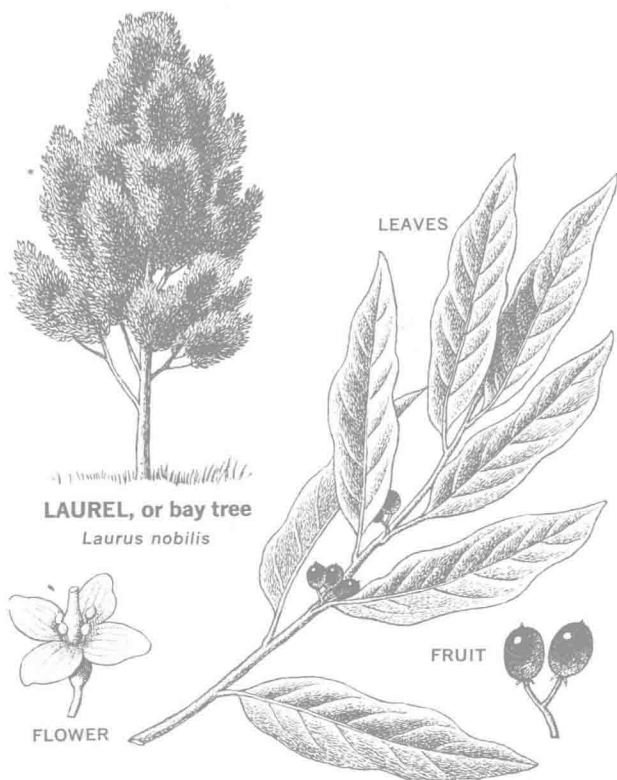
Laundry Operation

The basic large-scale laundering process is carried out in washing machines of 100-pound to 1200-pound (45-kg to 544-kg) capacities. The cycle, which takes between 35 and 60 minutes, depending on the amount of soil to be removed, is done in a number of steps, called the washing formula. The first step is the flush, in which water is used to wet the fabrics and loosen the soil. In the following step, called the break, detergents are added to break up the heavier soil. The next step is the suds step, when soap is added to suspend the soil in the water. Then comes the bleach, which reacts chemically with stains to render them colorless. Next there are three hot rinses to remove the soil-carrying water. A cold rinse lowers the temperature of the laundry from 160° F. to 110° F. (71° C. to 43° C.) so that workers can handle it. Finally, the sour, a weak acid, is added to neutralize any soap or alkali remaining after rinsing.

After the wash cycle the fabrics pass through extractors, which remove up to half the water remaining in the fabric. A centrifugal extractor operates by spinning the laundry at about 700 rpm, pushing the water outward by centrifugal force. A squeeze extractor is a rubber container to which water pressure is applied to squeeze the laundry inside it.

Articles that need no ironing are tumbled in driers heated with air at 200° F. (93° C.). Various machines can dry from 25 to 200 pounds (11-90 kg) of laundry per hour. Laundry that must be pressed is taken damp from the extractors and pressed on units steam-heated to 327° F. (163° C.). Flat pieces, such as sheets and spreads, are passed under large padded rolls on a heated surface. These flatwork ironers can press as many as 700 sheets per hour. Small, irregular articles, such as shirts, are pressed between a stationary unit and a descending top unit which is steam-heated. Both units are similar to home ironing boards.

Harry Cohen



laurel (lô'rəl), also called sweet bay, either of two medium-sized evergreen trees that are native to southern Europe, the Canary Islands, and the Madeira island group. Laurel trees usually grow to a height of about 40 feet. They bear clusters of tiny pale-yellow flowers, and they have stiff lance-shaped leaves about 3 or 4 inches long. In ancient Greece and Rome the laurel tree symbolized victory and merit, and its leaves were often made into wreaths, which were used to crown heroes.

Only one species of laurel, commonly called the bay tree (*Laurus nobilis*), is widely cultivated. It is usually raised for ornament, and it is often trimmed into various shapes, such as pyramids, globes, and cones. Its leaves, called bay leaves, are dull green and have a pleasant fragrance. Dried bay leaves are often used as herbs in cooking. The small deep-purple berries of the bay tree yield an oil sometimes made into perfume.

Laurels are classified as genus *Laurus* of the family Lauraceae (laurel). Other well-known members of the laurel family include the avocado, sassafras, and cinnamon tree.

*Richard A. Howard

Laurel and Hardy, American motion-picture comedy team. Arthur Stanley Jefferson Laurel, born Ulverston, England, 1890; died Santa Monica, Calif., Feb. 23, 1965. Oliver Norvell Hardy, born Atlanta, Ga., Jan. 18, 1892; died North Hollywood, Calif., Aug. 7, 1957.

Laurel and Hardy are considered one of the funniest comedy teams ever to appear in films. Laurel's character was that of the timid, good-natured little man who is constantly baffled by the world. In contrast, Hardy was fat, aggressive, and ill-tempered, usually reacting with a slow, exasperated "burn" to his partner's bumbling antics. Both performers were noted for their skillful pantomime, comic handling of props, and

ability to improvise. Laurel and Hardy began their collaboration in 1926. Their most famous pictures include *Hats Off*, *Babes in Toyland*, *Swiss Miss*, *Saps at Sea*, *Blockheads*, and *A Chump at Oxford*.

Laurel began his career as Charlie Chaplin's understudy in London music halls. Hardy started in vaudeville and worked until 1925 as a director for Vitagraph films. A year later at the Hal Roach Studios, the two men were first cast as a team in *Hats Off*. Thereafter they appeared in about 200 films, becoming one of Hollywood's most successful attractions.

*Richard Griffith

Laurencin, Marie (lô răn san, mă rē), French painter. Born near Paris, France, Oct. 31, 1885. Died Paris, June 8, 1956.

Marie Laurencin is known for her delicate pastel studies of young women and girls. The figures in her paintings are usually simplified into flat, decorative shapes of pink and blue color. Typical of her style is *Mother and Child* (Detroit Institute of Arts).

Miss Laurencin's style was greatly influenced by the Cubist and Fauvist movements of the early 20th century and by the graceful Rococo style of the 18th century. She was a friend of the Cubist artists Pablo Picasso and Georges Braque, and she exhibited with them at the Indépendants exhibition in 1907. In addition to her paintings, Miss Laurencin is noted for her lithographs and etchings and for her stage decorations for the Comédie Française and the Ballets Russes.

*Edward Bryant



DETROIT INSTITUTE OF ARTS

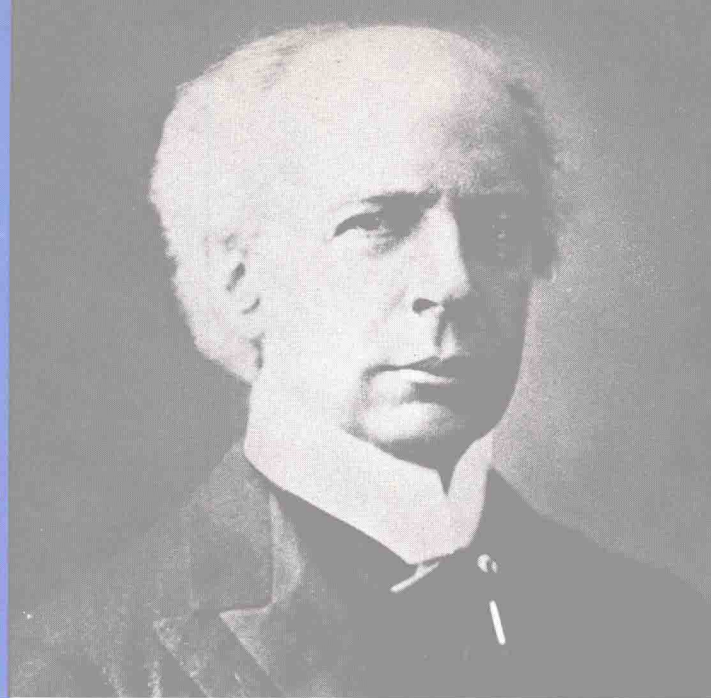
Marie Laurencin's *Mother and Child* typifies her technique of simplifying figures and objects into flat decorative shapes.

Laurentian Plateau (lô ren'shən), an alternative name for the Canadian Shield, one of the major physiographic divisions, or natural regions, of Canada. It is also called the Laurentian Upland. See also CANADA.

SIR WILFRID LAURIER

SEVENTH PRIME MINISTER OF CANADA
IN OFFICE FROM JULY 1896 TO OCTOBER 1911

POLITICAL PARTY	Liberal
BORN	Nov. 20, 1841
BIRTHPLACE	St.-Lin (now Laurentides), Quebec
MARRIED	Zôe Lafontaine
DIED	Feb. 17, 1919; age 77



Sir Wilfrid Laurier (vē fred lô ryā) was the first French Canadian to attain the post of Prime Minister of Canada. Laurier was an excellent speaker in both French and English, and he bridged the divisions between French-speaking and English-speaking Canadians to build a strong Liberal Party reflecting common national interests. He relied heavily on rational argument to win his point. Through compromise and conciliation he settled the question of Church schools in Manitoba, initiated imperial preference for British imports, and furthered Canada's independence in foreign affairs. He remained in power for 15 years.

Early Life. Laurier was born on Nov. 20, 1841, at St. Lin (now Laurentides), Quebec. His father, Carolus Laurier, a farmer and land surveyor, was the descendant of a settler who came to Canada from Normandy in 1641. Laurier's mother, Marcelle Martineau Laurier, died when he was four, and he was raised by his stepmother.

While still young, Laurier was sent to a Protestant school at New Glasgow, some distance from his home. Living there with an Irish family, he learned fluent English. Later in life he was to be accused of speaking French with an English accent. His next school was L'Assomption College, a conservative classical college, which he attended from 1854 to 1861. He then went to McGill University to study law.

While he was at the university, he entered the law office of Rodolphe Laflamme, one of the leaders of the Parti rouge, the most liberal political faction in Quebec. He also joined the Institut Canadien, a literary and scientific society that attracted many young liberals, radicals, and anticlericals. Both the Parti rouge and the Institut were under steady attack by the Roman Catholic clergy, who had extended Pope Pius IX's denunciation of liberalism in Europe to include liberals in Quebec. Although a good Catholic, Laurier consistently defended his right to hold political beliefs not endorsed by the Church, a stand that was to incur the clergy's opposition to his political advancement in the future.

Admitted to the bar in 1864, Laurier joined a Montreal law firm. However, his health failed and he decided to move to the country. In 1866 he settled in

Arthabaskaville (now Arthabaska), in the Eastern Townships. He opened a law office and took on the editorship of a newspaper, *Le Défricheur*. Although it was mainly concerned with industrial education, it was attacked by Bishop Laffêche of Trois-Rivières and had to close.

Laurier's first venture into politics came in 1871, when he stood for the Quebec provincial legislature for Arthabaska. His opponent had held the seat for some time and was expected to win again. Laurier campaigned hard and won by more than 1,000 votes. In 1874 he resigned his seat in the provincial house to stand for the federal Parliament, in Drummond and Arthabaska. He was again successful, winning by a majority of 238. His first important speech, made in French, glorified the British Empire. In it he stressed that his liberalism was of the moderate British type, not the anti-clerical radicalism of the European continent that had been attacked by the Pope. Although he failed to gain immediate clerical support for his program, he opened the way for Catholics to vote for him with a clear conscience.

Minister. By 1877, Laurier had already proved himself one of the most promising young men supporting the Liberal Party, which consisted of a loose union between the Parti rouge in Quebec and the Crits in Ontario. In October of that year the minister of inland revenue, Joseph Cauchon, resigned. Alexander Mackenzie, the Liberal prime minister, chose Laurier to succeed Cauchon. However, by Canadian law at that time a newly appointed minister was obliged to stand for Parliament again. The clergy mounted a violent campaign against Laurier, some even saying from the pulpit that it would be a sin to vote for him. Their attack was successful, and Laurier lost by 29 votes. The party thought that he was too valuable to lose, and the member for Quebec East was persuaded to resign in order to give Laurier a seat. He continued to hold the seat from Quebec East for 40 years.

Opposition

However, he did not long enjoy his first period in office. In the election of 1878 the Liberals were defeated and the Conservatives, led by Sir John Alex-



JOHN BULL: "Yes, 'e's makin' a lot of noise, Sam, but 'e'll get over it."—From the *North American* (Phila

BETTMANN ARCHIVE

Britain and the United States between them settle the Alaska-Canada border. In time, Laurier won control for Canada in such matters.

ander Macdonald, returned to power. In the years of opposition that followed, Laurier continued to build his personal following in Quebec. In the election of 1882 he was not only returned to Parliament but was also made mayor of Arthabaska, where he had been rejected five years before.

In 1885, Louis Riel, who had led an unsuccessful rebellion of *métis*, or French half-breeds, in the Saskatchewan Valley, was hanged in Regina. Laurier, convinced that Riel was insane and that the plight of the *métis* deserved sympathy, immediately denounced the government in Parliament and at a mass meeting in Montreal. His views echoed those of most French Canadians. Nevertheless, in the 1887 election the Liberals gained only a few seats in Quebec and the Conservatives remained in power.

Liberal Leader

Edward Blake, who had succeeded Mackenzie as leader of the Liberals, was disheartened and insisted on resigning in June 1888. His possible successors included Richard Cartwright, David Mills, and Laurier. Although the Liberals had never before been led by a French Catholic, Blake advised them to choose Laurier, who was elected. His task seemed hopeless, but Laurier was not one to avoid a battle.

He led a vigorous campaign against Macdonald in the election of 1891. The Liberals' chief campaign plank was reciprocity in trade with the United States. The Conservative majority was reduced, but it still held. Then, in 1891, Macdonald died. He was followed in rapid succession by Sir John Abbott, Sir John Thompson, Sir Mackenzie Bowell, and Sir Charles Tupper. None could come to grips with the controversial question of Church schools in Manitoba.

In 1891 the Protestant majority in the Manitoba legislature passed a law closing the separate schools attended by Roman Catholics. The Thompson govern-

ment was pressed to declare the law unconstitutional but preferred to leave the matter to the courts. In 1895 the judicial committee of the Privy Council, the ultimate court of appeal, gave its decision: It declared the Manitoba law unconstitutional. The federal government was forced to act, since it had the constitutional duty of protecting the educational rights of minorities. Laurier refused to give his opinion on what should be done until the government showed its hand. Tupper introduced a remedial bill in 1896 that would have restored separate schools in Manitoba. The Catholic hierarchy backed the measure and called on Laurier to support it. He refused, declaring to Parliament: "I am here representing not Roman Catholics alone, but Protestants as well, and I must give an account of my stewardship to all classes." Tupper failed to pass the bill and was obliged to seek support from the people in a general election.

Prime Minister. The Manitoba schools were the main issue in the 1896 election. Although the Catholic clergy campaigned against him, Laurier argued in Quebec that he would obtain better terms for the Catholics by negotiating directly with the provincial government. "Hands off Manitoba" proved an effective slogan in the other provinces as well. A second issue was corruption in the Conservative Party, for a series of scandals had rocked the Bowell administration. Israel Tarte, a former *bleu*, or Quebec conservative, who possessed evidence of these charges, managed Laurier's campaign in Quebec. It was in Quebec that he had his greatest victory, carrying 49 out of 65 seats. Victories in Ontario and western Canada brought the Liberal majority in Parliament to 21. Tupper resigned on July 8, and on July 11, 1896, Wilfrid Laurier became Prime Minister of Canada.

Laurier had acquired few political debts on his climb to power and was free to choose his Cabinet on the basis of merit. It contained, in marked con-

trast to those of his predecessors, many men of real ability, some of whom had distinguished themselves as provincial leaders. Sir Richard Cartwright, once Laurier's rival for leadership, was made minister of trade and commerce. Cartwright had too many enemies to be made minister of finance. That post was given to William Fielding, a former editor and premier of Nova Scotia. Tarte was made minister of public works, and Clifford Sifton of Manitoba became minister of the interior. The minister of justice was Sir Oliver Mowat, a comparatively old man who had been premier at Ontario since 1871. Laurier took no department for himself.

The first task of the new government was to find a solution to the Manitoba crisis. Laurier did so by pushing through a plan that allowed a limited amount of religious teaching and instruction in the French language in the Manitoba schools. However, it did not return the province to its original educational system, which had assumed an equality between the Protestant and Catholic populations. The plan therefore failed to satisfy the more extreme Catholics. When *L'Electeur*, the Liberal paper in Quebec, defended Laurier's compromise, the Catholic bishops of the province excommunicated anyone who continued to read it. However, the paper merely changed its name to *Le Soleil*. Eventually the Vatican intervened to restrain the bishops, whose political domination in Quebec came to an end.

Laurier's first budget was a compromise between his declared free-trade views and the need to protect Canadian industries accustomed to a high tariff. He made only a few reductions in the general tariff and then offered Britain imperial preference, amounting to one-third of the duty, on all its trade with Canada. This offer made Laurier a key figure at the Colonial Conference of 1897, held at the same time as the celebration of Queen Victoria's diamond jubilee. Handsome and courtly, Laurier was lionized on his first trip to Europe. Nevertheless, he firmly resisted pressure from the British to form an imperial confederation or to contribute Canadian ships to the British navy. While in England, Laurier was knighted by Queen Victoria, and in France he received the Legion d'Honneur from President Félix Faure.

The outbreak of the Boer War in 1899 again made an issue of Canada's relationship with Britain. The British Canadians believed that Canada should support England wholeheartedly against the Boers. Most French Canadians believed that it was none of Canada's business. Passions rose high, and Laurier's solution was again a compromise. He agreed to equip a contingent of volunteers, and although this action did not please extremists on either side, it gained general support. About 8,000 Canadians eventually fought in South Africa, about a third of whom came from the militia and were paid by the government. Laurier's policy was fiercely attacked by Henri Bourassa, one of his former supporters who seemed bent on forming an ethnic French party in Quebec. However, Bourassa's views had little effect on the results of the next election, in 1900. The Liberals lost a few seats in Ontario but carried Quebec and the country as a whole. Laurier was perhaps at the height of his power.

At the 1902 Colonial Conference, Laurier's role was much as it had been in 1897. He refused to cooperate in a common defense policy or to consider seriously

an imperial parliament. When he returned from Europe, he fell ill, so ill that he offered to resign. The party refused to let him go, but Tarte began to have hopes of succeeding him. Returning to his former protectionist views, Tarte made a series of speeches in Ontario urging higher tariffs. As this view was directly against declared government policy, Laurier forced him to resign. Tarte returned to the Conservatives and became Laurier's chief enemy in Quebec.

Two setbacks affected the government in 1903. One was the final solution of a dispute over the boundary between Canada and Alaska. A commission was set up consisting of three Americans, two Canadians, and the British lord chief justice, Lord Alverstone. Although its members were supposed to act judicially, President Theodore Roosevelt's appointees were all passionate supporters of the U.S. claims. Alverstone sided with the Americans. Canada believed that it had been betrayed by England, and Laurier declared that his country must have greater power to deal with such problems "in our own way, in our own fashion, according to the best light that we have."

The second setback was the resignation of Laurier's minister of railways over Laurier's decision to build a second transcontinental line to compete with the Conservative-established Canadian Pacific Railway. Even with an abundant flow of immigrants to the Canadian west, the line was not needed, and it was built at a staggering cost to the country's taxpayers. A third transcontinental railway, the Canadian Northern, was built before Laurier left office in 1911. Laurier might have done better if he had taken more interest in details of economic policy.

In addition to charges of extravagance and ineptitude, the Conservatives made much of Laurier's abrupt dismissal of the Earl of Dundonald, the British commander in chief of the Canadian militia and a veteran of the Boer War. Nevertheless, the overriding factor

Laurier's birthplace at Laurentides, Quebec. Laurier was the first French Canadian to become Prime Minister of Canada.

PUBLIC ARCHIVES OF CANADA



A LIVE SHELL



On the deck of the good ship Dominion — Who will tackle it first?
PUBLIC ARCHIVES OF CANADA

The Manitoba Schools Question was a political bombshell in 1895.

in the election of 1904 was Canada's continued prosperity and expansion. The result was a triumphant success for Laurier. The Liberals carried every province except Prince Edward Island and won 149 seats against the Conservatives' 75.

The Liberals had a majority twice as great as in 1896. At the same time, however, they had become essentially a one-man party. Laurier was indispensable and there seemed no likely successor. The years to follow showed a steady decline in the government's effectiveness and the party's fortunes.

With the formation of Alberta and Saskatchewan provinces from the Northwest Territories, another Catholic-Protestant dispute over the question of Church schools broke out in 1905. Laurier proposed to follow the Ontario system, which supported separate Roman Catholic schools through taxes. That time the Protestants objected. Laurier's minister of the interior, Clifford Sifton, returned from holiday to protest and to resign. Eventually a compromise proposal was worked out, although it cost Laurier the support of Bourassa. Sifton was not invited to rejoin the Cabinet, and he, too, became Laurier's enemy.

In 1906 few bills were introduced. The government was beset by a succession of scandals, and some ministers were forced to resign. Laurier's own integrity was never questioned, but he had a tendency to let problems fester. Once forced to act, he was usually decisive.

The Imperial Conference of 1907 was a happier occasion. A Liberal government was in power in Britain, and it agreed with Laurier's view of the empire. In a remark at the conference he summed up this view in the words: "We are all His Majesty's governments." Laurier's conception of a loose relationship within the British Empire made possible the

idea of dominion status. At the 1911 Imperial Conference, Laurier won British agreement that the dominion would not be bound by any imperial treaty without their consent. Two years before, he had established a department of external affairs for Canada.

In spite of perennial disputes between extremists, Laurier continued to draw support from a balance of moderate opinion throughout Canada. The election of 1908 was fought mainly on the issue of government corruption, but a vigorous campaign by Laurier carried the country against the Conservatives.

The first challenge after the election came quickly. The British were appalled at the recent German arms buildup, and Canada was forced to define its naval policy at a defense conference in 1909. Ontario wanted Canada to contribute to the British navy, but Quebec wanted no part of it. As so often before, Laurier sought a compromise, proposing the creation of a Canadian navy to be built and trained in accordance with British naval requirements and placed under British command if Canada chose to enter a war with Britain. This proposal satisfied no one.

During debate on Laurier's navy bill it became increasingly clear that a curious alliance was forming between the so-called imperialist Conservatives under Borden and the so-called anti-imperialist Nationalists under Bourassa. Bourassa was a power in Quebec, with a large following among young French Canadians. Although he had given nominal support to Laurier in 1904, he had continued to build his own

Sir Wilfrid Laurier (seated, right) at the Imperial Conference of 1907. Winston Churchill is standing at the left.

RADIO TIMES HULTON



party. In July 1910 he made a final break. In November, when a by-election was held in Drummond and Arthabaska, Laurier's first constituency, Bourassa ran an obscure Nationalist candidate against the Liberals. The Nationalists won by 200 votes.

It seemed that the Nationalists could capture Quebec and that the Conservatives, on diametrically opposite grounds, could capture the rest of Canada. One last chance to save Laurier came in 1911. The United States was ready to change its views about tariff walls between the two countries. It seemed possible, after years of failure, to agree on a reciprocal trade agreement. A tariff agreement was worked out with the Taft administration, its terms being highly favorable to Canada.

However, industrial and railway interests in Canada had come to believe that their prosperity was due to tariffs and their trade with England, rather than to trade with the United States. Sifton was out to destroy Laurier by any means in his power, and Bourassa was only too willing to help. The initial Canadian approval of reciprocity turned to anger against it. In Parliament the Conservatives filibustered, and Laurier decided to go to the country and fight the election on the issue of reciprocity. The result was catastrophic. The Liberals retained only 88 seats, the number of opposition seats in the previous Parliament.

Opposition. Laurier resigned and was succeeded by Robert Borden. When war came in 1914, Laurier gave full support to the government in its decision to send men and arms to Europe. In 1917 the United States and Britain adopted conscription and Borden announced that Canada must follow suit. He invited Laurier to join a coalition government to help carry the measure. Laurier refused. Although most English-speaking Canadians favored conscription, Quebec was bitterly opposed to any kind of military draft.

The issue that split the country also split the Liberal Party. When Borden went to the country on the conscription issue, a large number of English-speaking Canadians left the Liberal Party and formed the Union Liberal Party to support conscription. In the election of 1917 only Quebec remained Liberal. It seemed as if Laurier's party had become purely French Canadian and that his vision of a Canada united through compromise had come to nought. He did not live to see Canada unite once more under one of his young lieutenants, William Lyon Mackenzie King. Ill throughout a long and hard campaign, Laurier died in Ottawa on Feb. 17, 1919.

Books for Further Study

Laurier by David Collins (Clarke, Irwin, 1969).

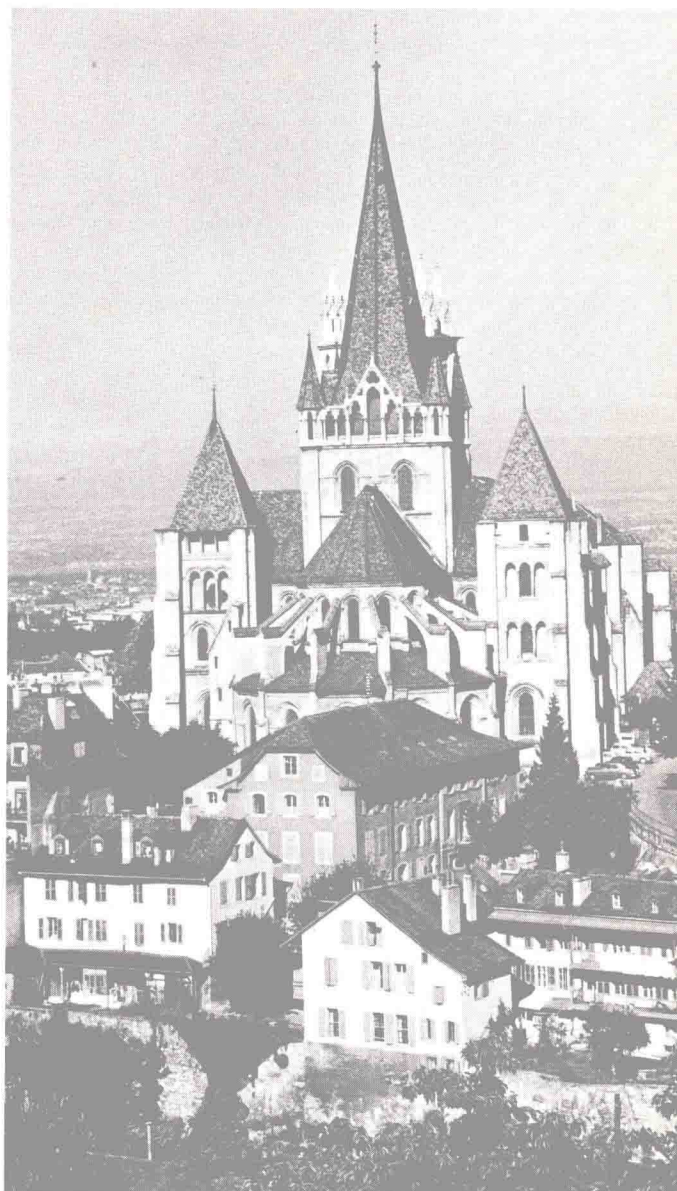
Laurier: Architect of Canadian Unity by Raymond Tanghe (Harvest, 1966).

Laurier by Joseph Schull (Macmillan, 1965).

*D. M. L. Farr

Lausanne (lōzan'), a city in western Switzerland; near Lake Geneva; about 50 miles (80 km) southwest of Bern. Pop. (1974 est.) 136,100.

Lausanne is a noted educational center and lakeside resort. It is also a commercial and manufacturing center. The city lies on several small hills overlooking the northern shore of Lake Geneva. Adjoining Lausanne, along the lake, is the picturesque suburb of Ouchy. Notable buildings in Lausanne include the 13th-century Cathedral of Notre Dame, which dominates the



SWISS NATIONAL TOURIST OFFICE

The Cathedral of Notre Dame, Lausanne, Switzerland

Cité, the oldest section of Lausanne. The University of Lausanne was established as a theological seminary in 1537 and has been a university since 1890.

The city dates from ancient times and was known to the Romans as Lausonium. It has served as the capital of the canton of Vaud since 1803. Lausanne is also the seat of the Swiss federal tribunal, which is the country's highest court. *Norman J. G. Pounds

lava (lā'və), molten rock that flows from a volcano or a crack in the earth's surface, or the solid rock that is formed when the molten rock cools. Deep beneath the surface of the earth are vast reservoirs of molten rock called magma. The tremendous pressures in such regions sometimes force the magma upward, through cracks in solid rock, toward the surface of the earth. Magma that reaches the surface is called lava.

Magma consists principally of silica, SiO₂, and alumina, Al₂O₃. Appreciable amounts of potash, K₂O, soda

Na_2O , or magnesia, MgO , are also usually present. Magma also contains dissolved gases. Depending on the proportion of silica to other compounds in the magma, the lava may be either basic or silicic.

Basic lavas contain less than 55 percent silica. There is little dissolved gas in their composition, and they are very fluid. Such lavas flow quietly and move great distances before they harden. The rock formed by the solidification of basic lavas is usually dark and dense, contains few bubbles, and has a smooth surface.

Silicic lavas contain more than 55 percent silica. They are very viscous and contain large amounts of dissolved gases. In magma these gases are under great pressure. At the earth's surface, however, the pressure is released suddenly, causing the gas to expand. For this reason, silicic lavas tend to erupt from volcanoes with great violence. The rock formed by the solidification of silicic lavas is usually light in color and light in weight, and it often contains many bubbles. Such rock is called pumice. If the bubbles are large and the rock resembles a sponge, it is called scoria. If bubbles are not present, the rock has a dark, glassy appearance and is called obsidian. The surface of a silicic-lava flow is usually rough and is often covered with fragments thrown up by the volcano. Silicic lava usually does not flow far before it hardens.

*Patrick M. Hurley

Lava Beds National Monument, in northern California just south of the Oregon state line, about 30 miles (48 km) south of Klamath Falls, Ore. The monument covers an area of 46,500 acres (18,800 hectares), or about 72 square miles (186 sq km) and it includes a large area of lava beds which contain a number of unusual craters, caves, and chasms formed by volcanic activity. Also in the monument are prehistoric rock carvings and drawings.

The site was the scene of the last conflict of the Modoc War (1872–1873), in which rebellious Modocs fought U.S. Army troops. The Indians had objected to living on a reservation near Klamath, Ore., and retreated to the lava beds. There they were defeated.

The monument was established in 1925. It is administered by the National Park Service. *R. Coke Wood

Laval, François Xavier de (lä väl, frän swä zä vyä də), French churchman and first Bishop of Quebec. Born Montigny-sur-Avre, France, Apr. 30, 1623. Died Quebec, Canada, May 6, 1708.

As vicar apostolic and then bishop, Laval made the Roman Catholic Church a powerful force in New France, or Canada. He founded Canada's educational system and established an industrial school and two seminaries, one of which later became Laval University. He fought vigorously against the government policy of supplying liquor to the Indians and secured the removal of one offending governor. Willa Cather presents Laval as a main character in her novel *Shadows on the Rock*.

*Rev. Joseph M. Petulla

Laval, Pierre (pyär), French political leader. Born Châteldon, France, June 28, 1883. Died Paris, France, Oct. 15, 1945.

Laval had become a successful lawyer before he was elected to the Chamber of Deputies in 1914 as an extreme leftist deputy. After World War I, Laval gradually became more conservative. He was in office much of the time from 1924 to 1936 and served as minister

of labor, foreign affairs, and colonies. He was twice premier, the first time for about a year during 1931 and 1932 and the second time for half a year between 1935 and 1936. During his second ministry he attempted to solve French economic difficulties by making drastic reductions in state expenses. Always pro-Italian and inclined to favor Mussolini, his ministry



WIDE WORLD

Pierre Laval testifying at his trial for treason in 1945

fell after the publication of the appeasing Col. Hoare-Laval plan, which proposed to cede a large portion of Ethiopia to Italy.

After the fall of France to Germany in June 1940, Laval became vice-premier in the Vichy government under Marshal Henri Pétain. In December he was forced out of office for allegedly plotting to overthrow Pétain. Laval was restored to office in April 1942 as administrative chief and was given virtually dictatorial power. To the French resistance, Laval's policy seemed one of complete collaboration with Nazi Germany. His defenders claimed, however, that he contested German demands, delayed their acceptance, and bargained skillfully for the best possible terms for France. He was forced, nevertheless, to supply a French army and a conscript labor force for Germany. After the liberation of France, Laval was tried for treason in 1945. He was found guilty and, after an unsuccessful suicide attempt, was executed.

*John G. Gazley

Laval, a city in southern Quebec, Canada, near Montreal. Laval, primarily a residential community, is the second largest city in Quebec. It was formed in 1965, when Chomedey, Laval-des-Rapides, Pont-Viau, St-Vincent-de-Paul, and the other cities and towns on Jesus Island, or Île Jésus, were merged to form a single city. Pop. (1976) 246,243.

Paul Elliott

Laval University, a Roman Catholic coeducational university in the city and province of Quebec, Canada. It has faculties of theology, philosophy, law, medicine, arts, letters, science, agriculture, social science, forestry and surveying, and commerce, and it has a graduate school. In addition, specialized courses of studies