(Programs listed in The State Journal are checked to the last possible moment. Changes may be made, however, at the discretion of stations and networks.)

What's on the Air

FREQUENCIES

WIBA	1310	WCFL	1000	WMAQ	670
WHA	970	WIBU	1240	WGN	720
WLW	700	WENR	890	WIND	560
WBBM	780	WTMJ	620	WJJD	1160
WCCO	830	KMOX	1120	WLS	890

Tonight's Aces

Miscellaneous

8:30 p. m.—Report to the Nation (WBBM): Mrs. Franklin D. Roosevelt, Eddie Cantor, and Guy Kibbee. Mrs. Roosevelt speaks of International Students' Day, anniversary of rioting between students of Czech universities and Gestapo; Cantor speaks on behalf of 15th anniversary of Educational Alliance; Kibbee tells of experiences in appearances before armed forces.

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Variety

6:30 p. m.—Salute to Youth (WIBA): Quentin Reynolds tells of Russian navy hero's exploit; music: "Say a Prayer for the Boys Over There," "Missouri Waltz," "Begin the Beguine," medley from "Oklahoma."

7:30 p. m. — Duffy's (WLS): Reginald Gardiner, guest.

8 p. m. — Burns and Allen (WBBM): Walter Pidgeon is enmeshed in plot to make him "Tootsie Sagwell's" husband.

9 p. m.—Bob Hope (WIBA): with Ida Lupino.

9:30 p. m. — Red Skelton (WIBA): "Junior" watches the birdie.

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Drama

7 p. m. — Big Town (WBBM): "Dark Heritage" finds Steve Wilson tangling with voodooism on a Caribbean Island.

8 p. m. — Mystery Theater (WMAQ): "Mourned on Sunday" . . . **Famous Jury Trials** (WIBA): "People vs. Martha Pedersen," story of spinster charged with ax murder of her sister.

9 p. m. — Suspense (WBBM): Gene Kelly in "Thieves Fall Out."

10:30 p. m. — Words at War (WIBA): "Skyways to Berlin," story of operations of American Eighth army air force in Great Britain.

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Music

6 p. m.—Fred Waring (WIBA): observes first anniversary of "Victory Tunes" program, introducing new war song, "When They Met in Casablanca."

6:30 p. m.—American Melody Hour (WBBM): "Believe Me If All Those Endearing Young Charms," "White Christmas."

Elvia Alman plays the romantic minded "Tootsie Sagwell" on the Burns and Allen show heard over WBBM on Tuesdays at 8 p. m.

* * * *

7:30 p. m. — Horace Heidt (WIBA): "Sky Anchors," "Later Tonight," "Where or When."

8:30 p. m. — Spotlight Bands (WENR): Eddie Howard.

9:30 p. m.—Swing's the Thing (WGN): "The Man I Love," "Rosalie," "Indian Summer," "You'll Never Know," "Why Do I Love You."

11:15 p. m. — Roy Shield and Company (WMAQ): "St. Louis Blues," "Beale Street Blues," "Yellow Dog Blues," "Aunt Hagar's Blues," "Memphis Blues,"

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Wednesdaytime

8:30 p. m. — University Forum (WHA): rebroadcast, "Should We Receive Air Bases in Return for Lend-Lease?"

10:45 a. m. — Aunt Jenny's Stories (WBBM): Mrs. Theodore Roosevelt, Jr., describes her Red Cross work in London.

12:30 p. m. — Farm Program (WHA): war-front role of butter produced in Wisconsin.

2:30 p. m. — School of the Air (WBBM): presents study of man's use of soil resources as reflected in world's food supply and standards of living.

5:15 p. m. — To Your Good Health (WBBM): Jan Peerce, guest singer; "Recondita Armonia" from "Tosca," "Yours is My Heart Alone," "Rosalie," "Begin the Beguine."

WIBA TONIGHT

5:00 NBC News Report.
5:05 Rhythm Rangers.
5:30 News Edition.
5:45 Meet the Team.
6:00 NBC Waring Victory Tunes.
6:15 Dinner Melody.
6:30 NBC Salute to Youth.
7:00 NBC Johnny Presents.
7:30 NBC The Treasure Chest.
8:00 BLUE Famous Jury Trials.
8:30 NBC Fibber McGee & Molly.
9:00 NBC Bob Hope.
9:30 NBC Red Skelton.
10:00 Night News Edition.
10:15 BLUE Raymond Gram Swing.
10:30 NBC Words at War.
11:00 NBC News Report.
11:05 Masterworks.
11:30 NBC Roy Shield's Orch.
11:55 NBC News Report.

OTHER STATIONS TONIGHT

5:00 Prayer: Quizmaster—WIBU
5:00 Billie the Brownie—WTMJ
5:15 Jimmy Allen—WENR
5:15 Chick Carter—WGN
5:15 University Special—WIBU
5:15 Edwin C. Hill—WBBM WCCO
5:30 Safety Legion—WGN
5:30 Jack Armstrong—WENR
5:45 Superman—WGN
5:45 Capt. Midnight—WENR
6:00 Dr. Preston Bradley—WGN
6:00 I Love a Mystery—WCCO
6:00 Fred Waring—WTMJ
6:15 Lum and Abner—WIBU
6:15 Harry James WBBM WCCO
6:30 Supper Concert—WMAQ
6:30 Chester Bowles—WLS
6:30 Those Who Serve—WTMJ
6:30 American Melody Hour—WBBM
6:45 Guest Star Theater—WGN
6:45 Confidentially Yours—WIBU
6:45 H. V. Kaltenborn—WMAQ
7:00 Johnny Presents—WTMJ WMAQ
7:00 Big Town—WBBM WCCO
7:00 Confidentially Yours—WGN
7:15 Gracie Fields—WGN,
7:15 Lum and Abner—WLS
7:30 Johnny Morgan—WCFL
7:30 Nonsense and Melody—WGN
7:30 Horace Heidt—WMAQ WTMJ
7:30 Judy Cantova WBBM WCCO
7:30 Duffy's—WLS
8:00 Mystery Theater—WTMJ WMAQ
8:00 Burns & Allen—WBBM WCCO
8:00 Famous Jury Trials—WENR
8:00 Gabriel Heatter—WGN WIBU
8:30 American Forum—WIBU
8:30 Report to the Nation—WBBM
8:30 Fibber McGee—WMAQ WTMJ
8:30 Ahoy America—WGN
8:30 Spotlight Bands—WENR
9:00 Suspense—WBBM WCCO
9:00 Raymond Gram Swing—WENR
9:00 Bob Hope—WMAQ WTMJ
9:15 Sanders and Savage—WGN
9:30 Swing's the Thing—WGN
9:30 Red Skelton—WTMJ WMAQ
9:30 Congress Speaks—WBBM
9:45 The General's Review—WBBM
10:00 Fulton Lewis, Jr.—WGN
10:00 I Love a Mystery—WBBM
10:00 Fred Waring Orch.—WMAQ
10:00 Symphonette—WENR
10:30 Toast to Allies—WENR
10:30 Salute to Youth—WMAQ
10:30 Sinfonietta—WIBU
10:35 Pop Concert—WENR
10:45 Rumpus Room—WTMJ
10:45 Salute to Victory—WBBM
11:05 Benny Goodman Orch.—WBBM
11:10 Buddy Franklin Orch.—WGN
11:15 Roy Shield and Co.—WMAQ
11:20 Lou Breese Orch.—WENR
11:30 Tiny Hill Orch—WGN
11:30 Jimmy Hilliard Orch.—WBBM
11:30 Gay Claridge Orch.—WENR
12:00 Henry Brandon Orch.—WMAQ
12:00 Nite Watch (to 6)—WIND
12:00 Music You Want—WENR
12:05 Art Kassel Orch.—WGN
12:05 Charlie Wright Orch.—WBBM
12:30 Eddie Fens Orch.—WBBM
12:30 Charlie Spivak Orch.—WENR
12:30 Pot Luck—WMAQ
12:30 Dance Orch.—WGN
1:00 Swing Shift (to 3)—WENR

WIBA WEDNESDAY

MORNING

6:00 Morning Parade
6:25 News Report
6:30 Morning Parade
7:00 NBC World News
7:15 Trading Post
7:30 State Journal News Edition
7:50 Musical Clock
8:30 Inquiring Mike
8:30 Shopping Guide
9:00 Melodic Interlude
9:15 NBC The Open Door
9:30 Betty Cass
9:45 NBC Music Room
10:00 NBC Road of Life
10:15 Ration Reporter
10:20 Parade of Stars
10:30 News
10:40 Interlude
10:45 NBC David Harum
11:00 Linda's First Love
11:15 Mary Foster
11:30 Farm Roundup

AFTERNOON

12:00 News Report
12:05 Farm Roundup
12:15 Farm Service
12:30 Noon News Edition
12:50 Interlude
1:00 NBC Guiding Light
1:15 NBC Lonely Women
1:30 NBC Light of the World
1:45 Rainbow Rendezvous
2:00 NBC Women of America
2:15 NBC Ma Perkins
2:30 Music of the Day
2:45 NBC Right to Happiness
3:00 Treasury Parade
3:15 NBC Stella Dallas
3:30 NBC Lorenzo Jones
3:45 NBC Young Widder Brown
4:00 Civilian Defense
4:15 Campus Jamboree
4:45 School and Home
5:00 NBC News Report
5:05 Rhythm Rangers
5:30 News Edition
5:45 Meet the Team

EVENING

6:00 NBC Waring Victory Tunes
6:15 NBC News of the World
6:30 Dinner Melody
6:45 NBC H. V. Kaltenborn
7:00 NBC Mr. and Mrs. North
7:30 NBC Eddie Cantor
8:30 NBC Mr. District Attorney
9:00 NBC Kay Kyser College
10:00 Night News Edition
10:15 BLUE Raymond Gram Swing
10:30 South American Magic
10:45 Let's Learn Spanish
11:00 NBC News Report
11:05 Masterworks
11:30 NBC Design for Dancing
11:55 NBC News

WHA WEDNESDAY

7:30 Band Wagon
7:45 Morning News
7:58 WHA Program Review
8:00 Music You Want
8:30 University Forum Rebroadcast: "Should We Receive Air Bases in Return for Lend Lease?" Prof. Henry R. Trumbower, Prof. Gordon Skilling, H. J. Kublak, Prof. A. C. Garnett, moderator.
9:00 Morning Melodies
9:15 News and Views
9:30 Let's Find Out; The Dress That Grew
9:50 News of Wisconsin
9:57 Weather Report; Eric Miller, Meteorologist
10:00 Homemakers' Program: Pies for Thanksgiving—Cookies for Chirstmas, Mrs. Harriet Grace; Wisconsin Cranberries for the Table, Agnes Hanson.
10:30 Musical Moments
10:45 Young Experimenters: "Building a Model Glider"
11:00 Backgrounds of World War II: Prof. Chester Easum
11:50 Noon Musicale
12:20 Noon News
12:30 Farm Program: The Situation as I See it, Asher Hobson; Food for Freedom: Wisconsin Butter.
1:00 Chapter a Day
1:30 Journeys in Musicland
2:00 Over at Our House: "Three Generations"
2:30 Music of the Masters: American concert
3:30 Reading for Wartime
3:45 Excursions in Science
4:00 Melodies for Two
4:15 Department Public Instruction: Dean Frank O. Holt
4:30 Lest We Forget
4:45 Adventure Stories; "The Lost Lagoon"
4:55 Afternoon News
5:00 Masterworks of Music

OTHER STATIONS WEDNESDAY

—MORNING—

6:00 Farm Service—WLS
6:00 Top o' The Morning—WTMJ
6:15 Everett Mitchell—WMAQ
6:15 Morning Devotions—WLS
6:30 Back to the Bible—WIND
7:00 Pats Gallicchio—WMAQ
7:01 Farm Service—WIBU
7:45 Mountain Theater—WLS
8:00 Your Neighbor—WMAQ
8:00 Musical Clock—WIBU
8:15 Know the Answer?—WBBM
8:30 Breakfast Club—WLS
9:00 Lora Lawton—WMAQ, WTMJ
9:00 Songs of a Dreamer—WLS
9:00 Valiant Lady—WBBM WCCO
9:15 Kitty Foyle—WBBM, WCCO
9:15 The Open Door—WTMJ WMAQ
9:30 Honeymoon Hill—WBBM
9:30 Helpmate—WMAQ WTMJ
9:30 Hebrew-Christian Hr.—WIBU
9:45 Star Playhouse—WMAQ
9:45 Bachelor's Children—WBBM
10:00 Road of Life—WMAQ WTMJ
10:00 Breakfast at Sardi's—WLS
10:15 Vic and Sade—WMAQ WTMJ
10:15 Second Husband—WBBM WCCO
10:30 Brave Tomorrow—WMAQ
10:30 Bright Horizon—WBBM WCCO
10:30 Safety Court—WJJD
10:45 David Harum—WMAQ WTMJ
10:45 Aunt Jenny's Stories—WBBM
11:00 Kate Smith Speaks—WBBM
11:00 Guiding Light—WTMJ
11:00 The Editor's Daughter—WMAQ
11:00 Boake Carter—WGN
11:00 Martha and Helen—WLS
11:15 Big Sister—WBBM, WCCO KMOX
11:15 Linda's First Love—WMAQ
11:15 Lonely Women—WTMJ
11:30 Helen Trent—WBBM WCCO
11:30 Light of the World—WTMJ
11:45 Reveille Roundup—WMAQ
11:45 Big Sister—WTMJ
11:45 Our Gal Sunday—WBBM WCCO

—AFTERNOON—

12:00 Elizabeth Hart Presents—WMAQ
12:00 Dinnerbell Program—WLS
12:00 Life Can Be Beautiful—WBBM
12:00 Heinie—WTMJ
12:15 Ma Perkins—WBBM WCCO
12:30 Bernardine Flynn—WBBM
12:30 Loop Noonday Service—WJJD
12:45 Ranch House Jim—WMAQ
12:45 The Goldbergs—WBBM WCCO
1:00 Life Can Be Beautiful—WTMJ
1:00 Guiding Light—WMAQ
1:00 Young Dr. Malone WBBM WCCO
1:15 Joyce Jordan—WBBM WCCO
1:15 Lonely Women—WMAQ
1:15 Bond Wagon—WGN
1:15 School Time—WLS
1:30 Light of the World—WMAQ
1:30 Aunt Jenny—WTMJ
1:30 We Love and Learn—WBBM
1:45 Hymns of All Churches—WMAQ
1:45 Eddie and Fannie—WLS
1:45 Perry Mason—WBBM KMOX
2:00 Mary Marlin—WBBM KMOX
2:00 Morton Downey—WLS
2:00 Woman of America—WMAQ
2:15 Ma Perkins—WMAQ WTMJ
2:30 Devotionals—WIBU
2:30 School of the Air—WBBM
2:30 Pepper Young—WMAQ WTMJ
2:45 Right to Happiness—WMAQ
3:00 Blue Frolics—WENR
3:00 Home Front Matinee—WBBM
3:00 Backstage Wife—WMAQ WTMJ
3:15 Stella Dallas—WMAQ WTMJ
3:15 Treasury Star Parade—WIBU
3:30 Lorenzo Jones—WMAQ WTMJ
3:30 Full Speed Ahead—WGN WIBU
3:45 Widder Brown—WTMJ WMAQ
4:00 When A Girl Marries—WMAQ
4:00 The Mystery Chef—WENR
4:15 Malcolm Claire—WENR
4:15 Portia Faces Life—WMAQ
4:15 We, Too, Serve—WIBU
4:30 Chick Carter—WIBU
4:30 Cinnamore Bear—WENR
4:30 Just Plain Bill—WMAQ WTMJ
4:45 Front Page Farrell—WMAQ
4:45 American Women—WBBM
4:45 Dick Tracy—WENR
4:45 Parade of Bands—WIBU

—EVENING—

5:00 Billie the Brownie—WTMJ
5:00 Terry and the Pirates—WENR
5:00 Prayer: Quizmaster—WIBU
5:15 Chick Carter—WGN
5:15 Lyn Murray Orch.—WBBM
5:15 University Special—WIBU
5:15 Jimmy Allen Adventures—WENR
5:30 Jack Armstrong—WENR
5:30 Safety Legion Time—WGN
5:45 Capt. Midnight—WENR
5:45 Superman—WGN
6:00 I Love a Mystery—WCCO
6:00 Dr. Preston Bradley—WGN
6:00 Fred Waring—WTMJ
6:15 Fulton Lewis, Jr.—WIBU
6:15 Ration Reporter—WIBU
6:15 Harry James—WBBM WCCO
6:30 Supper Interlude—WMAQ
6:30 Easy Aces—WBBM KMOX
6:30 The Lone Ranger—WLS
6:45 The Lion's Roar—WGN
6:45 H. V. Kaltenborn—WMAQ
6:45 Mr. Keen—WBBM KMOX
7:00 Sammy Kaye—WBBM WCCO
7:00 Mr. & Mrs North—WMAQ WTMJ
7:15 Gracie Fields—WGN
7:15 Lum and Abner—WLS
7:30 Nightcap Yarns—WGN
7:30 Beat the Band—WMAQ WTMJ
7:30 The Falcon—WCFL
7:30 Dr. Christian—WBBM WCCO
7:30 Battle of the Sexes—WLS
8:00 Lionel Barrymore—WBBM WCCO
8:00 Gabriel Heatter—WGN
8:00 Bandwagon—WENR
8:00 Eddie Cantor—WMAQ WTMJ
8:30 Nonsense and Melody—WGN
8:30 Mr. District Attorney—WMAQ
8:30 Jack Carson—WBBM WCCO
8:30 Spotlight Bands—WENR
9:00 Treasury Star Parade—WIBU
9:00 Raymond Gram Swing—WENR
9:00 Kay Kyser—WMAQ WTMJ
9:00 Great Moments in Music—WBBM
9:15 Sanders and Savage—WGN
9:15 Victory is Our Business—WCFL
9:30 Carnival—WBBM WCCO KMOX
9:30 Lone Ranger—WCFL
9:45 Pres. Roosevelt—WGN WMAQ.
10:00 Answer Man—WGN
10:00 I Love a Mystery—WBBM
10:00 Fred Waring—WMAQ
10:00 Symphonette—WENR
10:15 So the Story Goes—WBBM
10:30 Playtime—WMAQ
10:30 Toast to Allies—WENR
10:35 Pop Concert—WENR
10:45 Rumpus Room—WTMJ
10:45 Serenade in Swing—WBBM
10:45 Prelude to Victory—WMAQ
11:05 King Arthur's Court—WBBM
11:10 Art Kassel Orch.—WGN
11:20 Lou Breese Orch.—WENR
11:15 Author's Playhouse—WMAQ
11:30 Griff Williams Orch.—WGN
11:30 Eddie Oliver Orch.—WENR
11:30 Boyd Raeburn Orch.—WBBM
11:45 Little Night Music—WMAQ
11:45 Buddy Franklin Orch.—WGN
12:00 Emile Petti Orch.—WMAQ
12:00 Nite Watch (to 6)—WIND
12:00 Music You Want—WENR
12:05 Jimmy Blade Orch. WBBM
12:05 Del Courtney Orch. WGN
12:30 Charlie Spivak Orch.—WENR
12:30 Charlie Wright Orch.—WBBM
12:30 Pot Luck—WMAQ
12:30 Art Kassel Orch.—WGN
1:00 Swing Shift (to 3)—WENR

NEWS BROADCASTS

TONIGHT

5:00 KMOX WIBA
5:00 WIND WBBM
5:00 WMAQ WGN
5:15 WMAQ WBBM
5:30 WIBA WBBM
5:30 WCCO KMOX
5:45 WCCO
5:45 WBBM WMAQ
5:55 KMOX WBBM
6:00 WBBM WIBU
6:00 WLS WIND
6:05 WBBM
6:15 WTMJ WMAQ
6:30 WIND WCFL
6:30 WIBU WGN
6:45 WMAQ
7:00 WLS WIND
7:00 WCFL
7:30 WIND
7:55 KMOX WBBM
8:00 WGN WIND
8:00 WIBU WCFL
8:15 WGN
8:45 WIND
8:55 WENR
9:00 WIBU WENR
9:00 WIND WCFL
9:45 WENR
10:00 WGN WIND
10:00 WIBA WTMJ
10:15 WIBA WMAQ
10:15 WCCO KMOX
10:30 WIBU
10:30 WGN WBBM
10:45 WENR WGN
11:00 WGN KMOX
11:00 WCCO WIND
11:00 WIBA WBBM
11:00 WENR WIBU
11:00 WMAQ WTMJ
11:55 WCFL WENR
11:55 WIBA WMAQ
11:55 WCFL WENR
12:00 WGN WBBM
12:55 WMAQ WENR
1:00 WGN WIND
2:00 WIND (also 3, 4, 5)

WEDNESDAY

A. M.

5:30 WMAQ WIND
6:00 WIND WMAQ
6:05 WTMJ
6:25 WIBA
6:30 KMOX WTMJ
6:45 WLS
6:55 WBBM WMAQ
7:00 KMOX WIND
7:00 WBBM WTMJ
7:00 WIBA WLS
7:15 WGN
7:15 WCCO WBBM
7:30 WIBA WTMJ
7:45 WHA
7:55 WMAQ WTMJ
8:00 WIND KMOX
8:00 WBBM WGN
8:15 WMAQ WLS
8:25 WTMJ
8:30 WCCO
8:40 WMAQ
8:55 KMOX
9:00 WIND WGN
9:15 WHA WCFL
9:30 WLS
9:40 WGN
9:50 WHA
10:00 WIND WJJD
10:30 WLS WIBA
10:45 WLS
11:00 WIND WGN
11:00 WJJD WIBU
11:30 WGN WMAQ

P. M.

12:00 WCFL WGN
12:00 WIND WIBA
12:15 WIBU
12:20 WHA
12:30 WBBM WIBA
12:30 WMAQ WCCO
12:30 WGN WLS
12:45 WCFL
12:55 WTMJ
1:00 WIND WCFL
1:30 WIBU WLS
1:45 WGN WCCO
1:55 WTMJ
2:00 WIBU WIND
2:45 WLS
3:00 WIBU WIND
3:00 WGN
3:30 WGN WBBM
4:00 WIND WIBU
4:00 WMAQ
4:55 WHA
5:00 WMAQ WIND
5:00 WIBA WBBM
5:00 WIND KMOX
5:00 WTMJ WIBA
5:30 WTMJ WIBA
5:45 WCCO
5:45 WMAQ WBBM
5:55 KMOX WBBM
6:00 WIBU WGN
6:05 WLS WIND
6:15 WIBA
6:30 WIBU WGN
6:45 WIBA WMAQ
7:00 WGN
7:00 WIND WLS
7:25 WIBU
7:30 WIND
7:55 KMOX WBBM
8:00 WGN WIND
8:15 WGN
8:55 WENR
9:00 WGN WENR
9:00 WIND WCFL
9:45 WENR
10:00 WIND WIBU
10:00 WIBA WTMJ
10:15 WMAQ WIBA
10:30 WGN WIBU
10:30 WBBM
10:45 WGN WENR
11:00 WIND WCCO
11:00 WGN WIBA
11:00 WIBU WENR
11:00 WTMJ KMOX
11:00 WMAQ WBBM
11:55 WIBA WMAQ
11:55 WCFL WENR
12:00 WGN WBBM
12:55 WMAQ WENR
1:00 WGN WIND
2:00 WIND (Also 3, 4, 5)

MARKETS

WEDNESDAY

A. M.	P. M.
6:25 KMOX	12:00 WIBU
11:00 WIBU	12:10 WIBU
11:30 WLS	12:15 WIBA
11:45 WLS	12:40 WIBU
	12:45 WGN
	12:50 WLS
	1:10 WLS

SPORTS REVIEWS

TONIGHT

5:15 WIND
5:45 WIBA WTMJ
6:00 KMOX
9:00 WIND
11:15 WENR

WEDNESDAY

P. M

2:15 WIND
3:15 WIND
4:15 WIND
5:15 WIND
6:00 KMOX
5:45 WIBA WTMJ
9:00 WIND
11:15 WENR

TONIGHT
QUENTIN REYNOLDS
Raymond Paige's Young Americans
Nadine Conner
GOODYEAR
"Salute to Youth"
6:30 WIBA

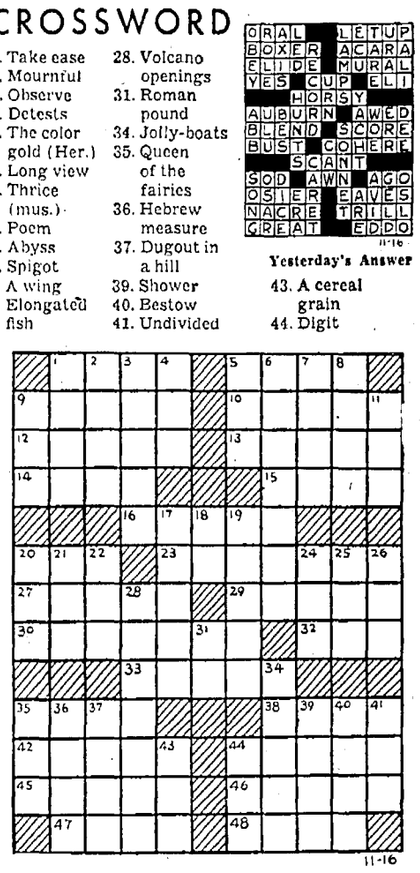
DAILY CROSSWORD

ACROSS

1. Arrived
5. Dread
9. Serious
10. Storms
12. Keen
13. Ascend
14. Fruit of the palm
15. Memorandum
16. Push
20. Apex
23. Beards
27. Public notice
29. Commonplace
30. Asylum
32. Chum
33. Examine, as ore
35. Ditch around a castle
38. Constellation
42. A resin
44. Two (poet.)
45. Small pulpy fruit
46. Edible fruit
47. Climb
48. Serf

DOWN

1. Shrub (So. Am.)
2. Touch end to end
3. Apportions
4. Before
5. Friar's title
6. Sincere
7. Exchange premium
8. Take ease
9. Mournful
11. Observe
17. Detests
18. The color gold (Her.)
19. Long view
20. Thrice (mus.)
21. Poem
22. Abyss
24. Spigot
25. A wing
26. Elongated fish
28. Volcano openings
31. Roman pound
34. Jolly-boats
35. Queen of the fairies
36. Hebrew measure
37. Dugout in a hill
39. Shower
40. Bestow
41. Undivided
43. A cereal grain
44. Digit



ORAL LETUP
BOXER ACARA
ELIDE MURAL
YES CUP ELI
HORSY
AUBURN AWED
BLEND SCORE
BUST COHERE
SCANT
SOD AWN AGO
OSIER EAVES
NACRE TRILL
GREAT EDDO

Yesterday's Answer

CRYPTOQUOTE—A cryptogram quotation

L B O W B N A V M F F L I M H D W B H , F Z T N W V M I Z , E M V F Z E B P M V N O V N M E — W N W B I M .

Yesterday's Cryptoquote: WHAT'S GONE, AND WHAT'S PAST HELP, SHOULD BE PAST GRIEF—SHAKESPEARE.

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Uncle Ray's Corner

Comet's Head Contains Gas and Nucleus of Solid Lumps

OF ALL known heavenly bodies, comets have the least weight, or "mass," compared with their size. If there were 2,000,000 comets, and we put all of them together, the combined weight would be less than that of the earth!

That is the more surprising when we think of the vast size of many comets. Some have tails which stretch out millions of miles. The tail alone may be thousands of times the size of the earth.

Photographs of comets without any tails have been made through telescopes. Later a certain comet has been photographed again, and a small tail has appeared. Still later, as the comet moved closer to the sun, the tail has grown to enormous size.

A comet without a tail is a mass of gas with a small amount of solid matter. There is reason to believe that the solid matter is made up chiefly of stones, but it also may contain chunks of metal such as iron or nickel.

The solid matter in a comet is in the core, or "nucleus." This part is not very large, and often is less than 100 miles across. The lumps of stone or metal in the core are believed to be less than 50 feet thick on the average, and many of them may be smaller than oranges.

Around the core is a great deal of gas which makes up the rest of the comet's head. The entire head may be 3,000 or 4,000 miles across, or it may have a width of more than 1,000,000 miles.

When a comet gets closer to the sun, its tail grows. This is due to the power of the sun's light to "push" some of the gas out of the comet, and make it stream far behind.

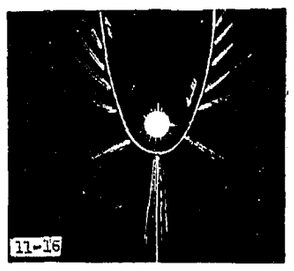

Diagram of a comet rounding the sun. Note that the tail always turns away from the sun.

The tail points away from the sun. This is made very clear when a comet goes around the sun at a close range.

One comet got to a point only 80,000 miles from the sun. That is a short space compared with most of the distances between objects in the sky.

The gas in a comet's tail is thinner than the air around the earth. Yet it makes a beautiful sight in the case of a large comet like Halley's or Donati's or the Great Comet of 1843.

(For SCIENCE section of your scrapbook.)

Uncle Ray

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MARJORIE THE MERMAID — BY BUD HILL

*Two Vitamin Cocktails contain following proportions of minimum daily requirements: from yeast 100% of Vitamins A, B_1, and D; 14%-20% of B_2; (also 2-3 mgs. of niacin); with tomato juice (8 oz.), 100% of Vitamin C.

If you bake at home, use Fleischmann's Yellow Label Yeast. The only baking yeast with Vitamin B Complex and added amounts of both Vitamins A and D.