

(No Model.)

2 Sheets—Sheet 1.

H. FITCH.
CALENDAR.

No. 458,970.

Patented Sept. 1, 1891.

Fig. 1

Fig. 2.

Correct Calendar for a7

1803	January	July
1814	S M T W T F S	S M T W T F S
1825	1 2 3 4 5 6 7	1 2 3 4 5 6 7
1831	2 3 4 5 6 7 8	2 3 4 5 6 7 8

Correct Calendar for a6

1802	January	July
1813	S M T W T F S	S M T W T F S
1819	1 2 3 4 5 6 7	1 2 3 4 5 6 7
1830	3 4 5 6 7 8 9	4 5 6 7 8 9 10

Correct Calendar for a5

1801	January	July
1807	S M T W T F S	S M T W T F S
1818	1 2 3 4 5 6 7	1 2 3 4 5 6 7
1829	4 5 6 7 8 9 10	5 6 7 8 9 10 11

Correct Calendar for a4

1806	January	July
1817	S M T W T F S	S M T W T F S
1828	1 2 3 4 5 6 7	1 2 3 4 5 6 7
1834	5 6 7 8 9 10 11	6 7 8 9 10 11 12

Correct Calendar for a3

1805	January	July
1811	S M T W T F S	S M T W T F S
1822	1 2 3 4 5 6 7	1 2 3 4 5 6 7
1833	6 7 8 9 10 11 12	7 8 9 10 11 12 13

Correct Calendar for a2

1810	January	July
1821	S M T W T F S	S M T W T F S
1827	1 2 3 4 5 6 7	1 2 3 4 5 6 7
1838	7 8 9 10 11 12 13	8 9 10 11 12 13 14

Correct Calendar for a1

1809	January	July
1815	S M T W T F S	S M T W T F S
1826	1 2 3 4 5 6 7	1 2 3 4 5 6 7
1837	8 9 10 11 12 13 14	3 4 5 6 7 8
1843	15 16 17 18 19 20 21	9 10 11 12 13 14 15
1854	22 23 24 25 26 27 28	16 17 18 19 20 21 22
1865	29 30 31	23 24 25 26 27 28 29
1871	30 31	30 31
1882	February	August
1893	S M T W T F S	S M T W T F S
1899	1 2 3 4	1 2 3 4 5
1905	5 6 7 8 9 10 11 12	6 7 8 9 10 11 12
1911	13 14 15 16 17 18 19	13 14 15 16 17 18 19
1922	19 20 21 22 23 24 25	20 21 22 23 24 25 26
1933	26 27 28	27 28 29 30 31
1939	March	September
1950		
1961		
1967		
1978		
1989		
1990		

Witnesses

F. P. Cornwall.
F. W. Pitter

Correct Calendar for B7

1820	January	July
1848	S M T W T F S	S M T W T F S
1876	1 2 3 4 5 6 7	1 2 3 4 5 6 7

Correct Calendar for B6

1808	January	July
1836	S M T W T F S	S M T W T F S
1864	1 2 3 4 5 6 7	1 2 3 4 5 6 7
1892	3 4 5 6 7 8 9	3 4 5 6 7 8 9

Correct Calendar for B5

1824	January	July
1852	S M T W T F S	S M T W T F S
1880	1 2 3 4 5 6 7	1 2 3 4 5 6 7
1896	4 5 6 7 8 9 10	4 5 6 7 8 9 10

Correct Calendar for B4

1812	January	July
1840	S M T W T F S	S M T W T F S
1868	1 2 3 4 5 6 7	1 2 3 4 5 6 7
1896	5 6 7 8 9 10 11	5 6 7 8 9 10 11

Correct Calendar for B3

1828	January	July
1856	S M T W T F S	S M T W T F S
1884	1 2 3 4 5 6 7	1 2 3 4 5 6 7
1896	6 7 8 9 10 11 12	6 7 8 9 10 11 12

Correct Calendar for B2

1816	January	July
1844	S M T W T F S	S M T W T F S
1872	1 2 3 4 5 6 7	1 2 3 4 5 6 7
1896	7 8 9 10 11 12 13	8 9 10 11 12 13 14

Correct Calendar for B1

1804	January	July
1832	S M T W T F S	S M T W T F S
1860	1 2 3 4 5 6 7	1 2 3 4 5 6 7
1888	8 9 10 11 12 13 14	8 9 10 11 12 13 14
1928	15 16 17 18 19 20 21	15 16 17 18 19 20 21
1956	22 23 24 25 26 27 28	22 23 24 25 26 27 28
1984	29 30 31	29 30 31
1994	February	August
	S M T W T F S	S M T W T F S
	1 2 3 4	1 2 3 4
	5 6 7 8 9 10 11	5 6 7 8 9 10 11
	12 13 14 15 16 17 18	12 13 14 15 16 17 18
	19 20 21 22 23 24 25	19 20 21 22 23 24 25
	26 27 28 29	26 27 28 29 30 31

Inventor

Henry Fitch

(No Model.)

2 Sheets—Sheet 2.

H. FITCH.
CALENDAR.

No. 458,970.

Patented Sept. 1, 1891.

Certified											
3rd O.S.	4th O.S.	5th O.S.	6th O.S.	7th O.S.	8th O.S.	9th O.S.	10th O.S.	11th O.S.	12th O.S.	13th O.S.	14th O.S.
10th " 1st "	11th " 2nd "	12th " 3rd "	13th " 4th "	14th " 5th "	15th " 6th "	16th " 7th "	17th " 8th "	18th " 9th "	19th " 10th "	20th " 11th "	21st " 12th "
100	101	102	103	104	105	106	107	108	109	110	111
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508	509	510	511	512	513	514	515	516	517	518	519
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544	545	546	547	548	549	550	551	552	553	554	555
556	557	558	559	560	561	562	563	564	565	566	567
568	569	570	571	572	573	574	575	576	577	578	579
580	581	582	583	584	585	586	587	588	589	590	591
592	593	594	595	596	597	598	599	600	601	602	603
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616	617	618	619	620	621	622	623	624	625	626	627
628	629	630	631	632	633	634	635	636	637	638	639
640	641	642	643	644	645	646	647	648	649	650	651
652	653	654	655	656	657	658	659	660	661	662	663
664	665	666	667	668	669	670	671	672	673	674	675
676	677	678	679	680	681	682	683	684	685	686	687
688	689	690	691	692	693	694	695	696	697	698	699
700	701	702	703	704	705	706	707	708	709	710	711
712	713	714	715	716	717	718	719	720	721	722	723
724	725	726	727	728	729	730	731	732	733	734	735
736	737	738	739	740	741	742	743	744	745	746	747
748	749	750	751	752	753	754	755	756	757	758	759
760	761	762	763	764	765	766	767	768	769	770	771
772	773	774	775	776	777	778	779	780	781	782	783
784	785	786	787	788	789	790	791	792	793	794	795
796	797	798	799	800	801	802	803	804	805	806	807
808	809	810	811	812	813	814	815	816	817	818	819
820	821	822	823	824	825	826	827	828	829	830	831
832	833	834	835	836	837	838	839	840	841	842	843
844	845	846	847	848	849	850	851	852	853	854	855
856	857	858	859	860	861	862	863	864	865	866	867
868	869	870	871	872	873	874	875	876	877	878	879
880	881	882	883	884	885	886	887	888	889	890	891
892	893	894	895	896	897	898	899	900	901	902	903
904	905	906	907	908	909	910	911	912	913	914	915
916	917	918	919	920	921	922	923	924	925	926	927
928	929	930	931	932	933	934	935	936	937	938	939
940	941	942	943	944	945	946	947	948	949	950	951
952	953	954	955	956	957	958	959	960	961	962	963
964	965	966	967	968	969	970	971	972	973	974	975
976	977	978	979	980	981	982	983	984	985	986	987
988	989	990	991	992	993	994	995	996	997	998	999
1000	1001	1002	1003	1004	1005	1006	1007	1008	1009	1010	1011
1012	1013	1014	1015	1016	1017	1018	1019	1020	1021	1022	1023
1024	1025	1026	1027	1028	1029	1030	1031	1032	1033	1034	1035
1036	1037	1038	1039	1040	1041	1042	1043	1044	1045	1046	1047
1048	1049	1050	1051	1052	1053	1054	1055	1056	1057	1058	1059
1060	1061	1062	1063	1064	1065	1066	1067	1068	1069	1070	1071
1072	1073	1074	1075	1076	1077	1078	1079	1080	1081	1082	1083
1084	1085	1086	1087	1088	1089	1090	1091	1092	1093	1094	1095
1096	1097	1098	1099	1100	1101	1102	1103	1104	1105	1106	1107
1108	1109	1110	1111	1112	1113	1114	1115	1116	1117	1118	1119
1120	1121	1122	1123	1124	1125	1126	1127	1128	1129	1130	1131
1132	1133	1134	1135	1136	1137	1138	1139	1140	1141	1142	1143
1144	1145	1146	1147	1148	1149	1150	1151	1152	1153	1154	1155
1156	1157	1158	1159	1160	1161	1162	1163	1164	1165	1166	1167
1168	1169	1170	1171	1172	1173	1174	1175	1176	1177	1178	1179
1180	1181	1182	1183	1184	1185	1186	1187	1188	1189	1190	1191
1192	1193	1194	1195	1196	1197	1198	1199	1200	1201	1202	1203
1204	1205	1206	1207	1208	1209	1210	1211	1212	1213	1214	1215
1216	1217	1218	1219	1220	1221	1222	1223	1224	1225	1226	1227
1228	1229	1230	1231	1232	1233	1234	1235	1236	1237	1238	1239
1240	1241	1242	1243	1244	1245	1246	1247	1248	1249	1250	1251
1252	1253	1254	1255	1256	1257	1258	1259	1260	1261	1262	1263
1264	1265	1266	1267	1268	1269	1270	1271	1272	1273	1274	1275
1276	1277	1278	1279	1280	1281	1282	1283	1284	1285	1286	1287
1288	1289	1290	1291	1292	1293	1294	1295	1296	1297	1298	1299
1300	1301	1302	1303	1304	1305	1306	1307	1308	1309	1310	1311
1312	1313	1314	1315	1316	1317	1318	1319	1320	1321	1322	1323
1324	1325	1326	1327	1328	1329	1330	1331	1332	1333	1334	1335
1336	1337	1338	1339	1340	1341	1342	1343	1344	1345	1346	1347
1348	1349	1350	1351	1352	1353	1354	1355	1356	1357	1358	1359
1360	1361	1362	1363	1364	1365	1366	1367	1368	1369	1370	1371
1372	1373	1374	1375	1376	1377	1378	1379	1380	1381	1382	1383
1384	1385	1386	1387	1388	1389	1390	1391	1392	1393	1394	1395
1396	1397	1398	1399	1400	1401	1402	1403	1404	1405	1406	1407
1408	1409	1410	1411	1412	1413	1414	1415	1416	1417	1418	1419
1420	1421	1422	1423								

UNITED STATES PATENT OFFICE.

HENRY FITCH, OF LAWRENCEBURG, INDIANA, ASSIGNOR TO ISAAC K. FUNK
AND ADAM W. WAGNALLS, OF NEW YORK, N. Y.

CALENDAR.

SPECIFICATION forming part of Letters Patent No. 458,970, dated September 1, 1891.

Application filed April 3, 1891. Serial No. 387,510. (No model.)

To all whom it may concern:

Be it known that I, HENRY FITCH, a citizen of the United States, residing at Lawrenceburg, in the county of Dearborn, State of Indiana, have invented certain new and useful Improvements in Calendars; and I hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, wherein—
Figure 1 is a view of a set of annual calendars, seven in number, adapted for the ordinary years, each calendar commencing with a different day of the week. Fig. 2 is a similar view of a set of annual calendars, seven in number, adapted for leap-years, each calendar commencing with a different day of the week; and Fig. 3 is a view of an index wherein there is placed opposite each year a symbol indicating the annual calendar for use in determining or ascertaining any date of said year.

Like symbols refer to like matters wherever they occur.

My invention relates to that class of calendars intended for use throughout a series of years or for determining or ascertaining the day of the week on which any date will fall or has fallen, commonly termed "perpetual calendars." This class of calendars as heretofore commonly constructed have either necessitated the use of an unsightly and unusual arrangement of dates in transverse and vertical columns, calculated to confuse the ordinary user, and thus lead to error, or else have been constructed with shifting weekdays and year indicators requiring manipulation from time to time, and therefore subject to error from lack of proper adjustment or from accidental displacement of the slides.

The object of my present invention is the production of a simple and efficient calendar of the class above specified which shall present no unusual or irregular arrangement of dates or general complicated appearance to confuse the unscientific user and which shall not contain shifting or adjustable parts liable to be displaced, and thus lead to error. While in the calculation of time down to the present era years of different lengths have been used and the errors arising have been corrected by the elimination of days or periods, so that we

have two common calendars—viz., the old style or Julian calendar and the new style or Gregorian—yet for all purposes of a general calendar there are in reality but two classes—first, those years which are termed "ordinary" years, which contain fifty-two (52) full weeks and a day and in which the year begins and ends on the same day of the week, and, second, those years termed "leap years," which contain an extra day and end on the day of the week succeeding that on which they commenced. It therefore follows that a series of annual calendars composed of two sets of seven each—that is, two sets, one for the ordinary years and one for the leap or extra-day years, the separate calendars of each set commencing with a different day of the week—must contain one calendar appropriate for any given year, whether Julian or Gregorian.

My invention therefore, generally stated, consists, first, in a general year-index wherein opposite each year is placed a symbol indicative of the character of the year (whether ordinary or leap year) and the day of the week on which the year commenced or will commence, (as the case may be,) whereby reference may be readily made to any annual calendar which has the given characteristics, and, secondly, in the combination, with a series of annual calendars composed of two sets, the calendars in each set commencing with a different day of the week and having distinctive symbols, of a year-index wherein opposite each year is placed the symbol corresponding with the annual calendar adapted to the said year.

I will now proceed to describe my invention more specifically, so that others skilled in the art to which it appertains may apply the same.

In Figure 1 of the drawings are shown sufficient of each of a set of annual calendars for ordinary years to clearly indicate the character of each calendar, so that others skilled in the art can produce the calendar. Said calendars are shown in their order of arrangement, one for each day of the week with which the year commences, and the whole set (for ordinary years) is indicated by the letter *a*, to which is added the number corresponding to the day of the week, so that *a'* indicates

the annual calendar wherein the year commences and ends on Sunday, or the first day of the week. a^2 indicates the calendar wherein the year commences and ends on Monday, or the second day of the week, and so on, a^3 a^4 a^5 a^6 a^7 corresponding to the respective days of the week on which the several calendars begin and end.

In Fig. 2 of the drawings are in like manner represented a set of calendars corresponding to leap-years, also arranged in their order of daily succession, the class as a whole indicated by the letter B and the separate calendars indicated by adding the number corresponding to the day of the week on which the calendar commences. Thus B' indicates the calendar for leap-year commencing on Sunday, B² that commencing on Monday, and so on, B³ B⁴ B⁵ B⁶ B⁷ to the calendar commencing on Saturday. In addition to the ordinary calendar there may, if desired, be marked or printed on the margin of each annual calendar the years to which said calendar is applicable, as shown at the left hand of the drawings, Figs. 1 and 2, and while this is of some value in assuring the user of the correctness of his selection, yet it is not a material feature of the present invention.

In Fig. 3 is illustrated an index to be used in conjunction with the annual calendars herein specified or their equivalents. Said index may commence with any given year and terminate with any given year, though for purposes of convenience, and, as fully illustrating the principle involved, I have commenced with the year 1101 (twelfth century) and ended with 2000, (twentieth century,) and have double-lined (transversely) the column-headings and arranged therein at the proper places the remaining centuries from the first (O. S.) to the twenty-eighth, (N. S.,) adding a third column at the year 1583 where the new-style or Gregorian calendar commences.

Referring now to the index, Fig. 3, it will be observed that for the Julian calendar (or years prior to 1583) it consists of two vertical columns, over the first of which is the word "Year," and in said column the years are noted in succession, and over the second column is the word "Old," and in said column are the symbols a^3 a^4 a^5 B⁶ a^7 a^2 , &c., referring to the proper calendar of the hereinbefore-described series for the year opposite which the respective symbol is placed. After the year 1582, or at the time of commencement of the Gregorian calendar, (1583,) a third parallel column is added, and at the top thereof the word "New" is placed to indicate the change. At this point the old manner of reckoning may be dropped, if desired, and the index reduced to its former condition of two parallel columns; but I prefer to retain the old style and add the new style, instead of substituting one for the other. In this said third column I place opposite the successive years from and inclusive of 1583 the appropriate symbols a^7 B' a^3 a^4 a^5 B⁶, &c., each

referring to that calendar of the hereinbefore-specified series, which is the correct calendar for the given year, all as clearly shown in the drawings.

In using the calendar hereinbefore described in order to ascertain the day of the week upon which any given date will fall in any given year all that is necessary is to first find the year in its position on the index, Fig. 3, then note the symbol placed opposite said year in the parallel column, which symbol will indicate the correct calendar of the series for said year, and in the calendar thus indicated the given date will be found under its proper week-day heading. For instance, it is known that the siege of Jerusalem ended on July 13, A. D. 70. On examining the headings of the index, Fig. 3, we find that the year 70 of the first century falls in the same column with the eighth and fifteenth centuries, and the proper calendar therefor is the same as for the corresponding year of the eighth and fifteenth centuries, or, in other words, is the same calendar as for the year 1470, which is indicated by the symbol a^2 . On turning to the calendar marked a^2 we find that July 13 falls on Friday, and thus ascertain that July 13, A. D. 70, on which the siege of Jerusalem ended, was Friday. As a second illustration of the use of the herein-described calendar, take the inauguration of President Benjamin Harrison, March 4, 1889. On examining the index, Fig. 3, we find in the parallel column opposite that year the symbol a^3 , and on referring to the calendar marked a^3 we find that March 4 fell on Monday.

In constructing the calendar I prefer, for sake of clearness, to use red or an equivalent bright color for the symbols referring to the old style (or prior to 1583) and black for the symbols referring to the new style, (or for 1583 and later,) especially if both old and new style references are retained after 1583; but the same forms no material part of the present invention, as any color or colors may be used, and after 1583 the old-style references can be omitted or used at will, as hereinbefore specified; and, further, though the symbols a^7 a^2 B' B², &c., have been used by me in illustrating the invention and indicating the character of the calendar and the day of the week on which it commences, and such symbols will be recognized as having a peculiar fitness therefor, yet any other characters or symbols may be substituted therefor without departing from the spirit of my invention.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. A perpetual-calendar index consisting of parallel columns, one of said columns containing year-dates and the other a series of symbols arranged opposite the year-dates and indicating the day of the week on which each year commences and the character of the year, whether ordinary or leap year, substantially as and for the purpose specified.
2. The combination, in a perpetual calendar

dar, of two sets of annual calendars, one set
corresponding to ordinary years and the other
to leap-years, the respective calendars of each
set commencing with a different day of the
5 week, and an index therefor, consisting of parallel columns, one column containing the
years and the other a series of symbols which
indicate the day of the week on which each
year commences and the character of the year,
10 whether ordinary or leap year, whereby the

correct calendar for each year may be selected,
substantially as and for the purposes specified.

In testimony whereof I affix my signature, in 15
presence of two witnesses, this 3d day of April,
1891.

HENRY FITCH.

Witnesses:

F. W. RITTER, Jr.,

F. R. CORNWALL.