

THE CZECH GLOBE-MAKER JAN FELKL

The name of Jan Felkl, maker of Czech globes, was well known to our public in the latter half of the 19th century, and frequently mentioned by the Czech press. As a matter of fact, all the globes of that time, and a large majority of those that were made in this country during the following 100 years, carried it to the whole world. For a long time this manufactory happened to be the only one of its kind in the whole Austro-Hungarian monarchy and thus controlled the market for this article even beyond its borders. The original, single Czech version of the globe, developed within a short time into 16 mutations in foreign languages (mutations in Bulgarian, Croatian, Danish, Dutch, English, French, German, Hungarian, Italian, Norwegian, Polish, Rumanian, Russian, Slovenian, Spanish and Swedish; some of the authors were mentioned on the globes: K. Göpfert of Annaberg, M. Suचेcki of Warsaw, P. Gönczy of Budapest, G. Geerling of Amsterdam, W. de Frese of Copenhagen, J. Villanova of Madrid. Occasionally only the name of the foreign customer — Ch. G. Danov — appears on the globe and some-



times we only read the translated heading and Felkl's name in title.). The extensive business connections of the Czech firm were no doubt yet strengthened by foreign travels of members of Felkl's family, as well as by participation at numerous exhibitions in Europe and Overseas. Our National Technical Museum shows a richly ornamented 18" globe (Inv. No 18318), which had been sent to important exhibitions and brought the firm medal awards from as far as Australia. The name of the manufactory enjoyed world-wide reputation and its prosperity soared in a manner that was, at that time, amazing. What, however, do we know about Felkl today? In encyclopedias we find no mention of him and the relevant literature confines itself to formal statements of his importance for Czech cartography. It is for this reason that the present article was conceived and hopes to offer a little more than had hitherto been written about him. It is based on the rare, preserved archive records, dispersed mentions in the press of the period and the accounts of Felkl's great-grand children. I thank Mrs. M. Mrázková and Mr. V. Kraupner of Rožtoky for permission to study the family correspondence and picture material and for handed down reminiscences.

Jan Felkl was born at Banín near Polička in Bohemia on the 20th of May 1817. As soldier — gunner of the 1st Artillery Regiment — he came to Prague

where he subsequently settled down. (Conscription sheet of Jan Felkl issued by the Prague Municipality 1850 — Archives of the City of Prague. He married on Maria Anna Jakob, born 1819, and had 9 children by her: Karel, born 1845; Ferdinand, born 1846; Antonín, born 1847; Adolf, born 1849; Václav, born 1851 but deceased soon after; Barbora, born 1853; Kryštof Zikmund, born 1855; Magdalena, born 1857; Vilemína Cecilia, born 1858.) At first he found employment with the Prague post-office as newspaper dispatching clerk and lived in the Voršilská Street in the Hradčany district (Schematismus für das Königreich Böhmen 1851, p. 44). At that time he made the acquaintance of Václav Merklas, the Prague engraver, cartographer and copper-printer (see: L. Mucha, Václav Merklas. Kartografický přehled. Praha 1950, 5: 19—40, 81—88; on globes see p. 81—82.), who started, in 1848—1849, an own production of two small Czech globes (see: Časopis Českého musea. Praha 1850, p. 175), the first of their kind in this country. Felkl is said to have helped him with the construction of the globes and even accorded him financial aid for the purpose. When Merklas later on prepared to change his profession and sphere of activity and even to liquidate his workshop, he left Felkl, in lieu of reimbursement of his debt, all the equipment for manufacturing globes together with the right of further issues. This apparently took place in 1849 (see: J. Roskiewicz: Kartographie. Beiträge zur Geschichte der Gewerbe und Erfindungen Oesterreichs. Series II. Wien 1873, p. 278), but new globes were, to all probability, only made after 1850, when Felkl moved to Stará Poštovská Street in the Old Town in Prague, perhaps even as late as 1852. According to advertisements in the press in 1853, his workshop, for which he had also engaged his soldier friends Kříž and Šedivý, at first only manufactured a smaller amount of the small Merklas globes of 2,5", 3,5" and 4,5" diameter. (see: Časopis Českého musea. Praha 1852, p. 204; J. V. Rozum: Seznam českých knih... Praha 1854, p. 193.) Their production technology was very simple. In brass, opening moulds they cast hollow hemispheres of hardening plaster and regulated the thickness of their walls by means of wooden cores, with the help of which they expelled the surplus plaster. The dried hemispheres were then sharply trimmed and glued together to form hollow spheres to which they stuck, after minor finishing touches to their surface, copper printed and hand coloured paper segments with the map of the world. The favourable sales of those goods and the unique production program led Felkl to have his enterprise inscribed in the trade register in 1854 as a registered firm ("Laut Dekret vom 22. Sept. 1854 No 75797", Conscription sheet). Thereafter he did not confine himself to Czech globes only, but launched in a far wider production of German globes, so that by 1855 800 globes left his works; see J. Roskiewicz, as mentioned above. In 1858 he introduced the production of telurians, soon after even lunariums (not later than 1860) and planetariums (1861; Oesterreichischer Catalog 1860, p. 29 [maps] and 1861, p. 65 [maps]) driven by crank as well as clockwork, for which, and for his globes as well, he himself wrote and published instruction booklets. [Navedení, jak se má uživati umělých koulí zemských i nebeských. — Instruction how to use artificial globes, terrestrial as well as celestial. Praha 1866; Vysvětlení země- a lunostroje (tellurium a lunarium). — Explanations of terrestrial and lunar apparatus (Telurian and Lunarian). Praha 1866; Vysvětlení planetostroje (Planetarium). — Explanations of planetary apparatus (Planetarium). Praha 1866 — all equally in German translation]. From his German globes he easily derived, by exchanging the printing block with the terminology, globes in

other languages as well. In 1860 he already supplied globes with Hungarian, Dutch, English, Russian (see: *Posel z Prahy. Praha 1860*, cover of No 6.) and after 1861 even Polish inscription. By 1855, larger sizes of globes were taken in hand, i. e. 6", 8" and 12" (illustrations of all manufactured sizes in *Posel z Prahy. Praha 1860*, No 2; their list is mentioned by the *Oesterreichischer Catalog 1860*, p. 29, maps) and soon after even the largest of globes with a diameter of 18". New authors also make their appearance: amongst the collaborators of the firm, mention is made of J. J. Böhm, director of the Prague Observatory, O. Delitsch, Professor of Leipzig University, H. Kunsch, Leipzig lithographer and, last not least, even of the distinguished Czech scholar and professor of the Czech higher public school in Prague, J. Erben, who elaborated the Czech terminology for the globe of 8" diameter (1860; the history of the origin of Erben's 8" globe is treated by the *Posel z Prahy, Praha 1860*, p. 80 and covers of Nos 3, 4, 5, 6, 8—9. This globe was even published as late as 1921 after thorough revision, under the name of Stan. Nikolau and approved for primary and secondary schools.) and that of 12" (1862; see: *Školník. Hradec Králové 1862*, p. 80). Erben's globes in lithographies by J. Wagner and Fr. Lipš (later also published in Erben's Russian edition) were the best as well as the largest published upto that time, they were considerably in demand for Czech schools and were printed for a long time to come. Felkl had his globe maps first printed not only in Prague (V. Šebek, F. Kutschera), but also in Leipzig (H. Kunsch), and the engraving as well as the lithographing was also procured in those two cities (Fr. Lipš, E. Liebisch and J. Wagner of Prague, W. Brückner and H. Kunsch of Leipzig); later on he equipped his own "Geographico-litographical Institute" in Prague, which also handled colour prints. As a pendant to the world globes he began to publish, beginning from the fifties, four sizes of celestial globes, at first in his own design (4,5", 6", 8", 12") and already in the middle of the sixties he introduced the production of slated globes (18" and then 12"), which were coated with a black slaty substance for easy drawing by chalk and provided only with a system of meridians and parallels, as well as armillary spheres (hemeraria). Their prospectus appears on the cover of the booklet "Instruction how to use artificial globes, terrestrial as well celestial", Praha 1866. As regards the printing, the copper plate which had been used so far, was progressively supplanted by the lithographic method, and the production process proper changed as well: as raw material for the production of spheres larger than 4,5" the makers began to use strawboard, forming it, after cutting to size, in hemispherical moulds. The thus manufactured hemispheres were then knocked into a tapered axial arbor, stuck together to form a sphere and prior to final application of the map, coated with a thin layer of plaster to allow fine smoothing surface. The excellently prospering enterprise was in 1870 moved by Felkl from Prague to Roztoky on the Moldau, house No 6. (He bought that house from Jan and Magda Kulka in 1870 for 2 100 Guldens; in 1894 the large building was sold as No 115.) Here, he introduced his youngest son Kryštof Zikmund in 1875 (*Oesterreichische Buchhändler-Correspondenz. Wien 1910*, Festnummer I, p. 19) as partner in his firm (hence the new style of J. Felkl and son). There he further developed production for export as well, and besides the existing mutations in German, Hungarian, Dutch, English, Polish and Russian (of the latter, it is said, that 70 000 Gulden's worth were ordered from Petrograd in 1870), he also manufactured in growing numbers French, Italian, Spanish, Bulgarian, Danish and Swedish globes, and by 1873 the yearly production mounted to

15 000 units (J. Roskiewicz, as mentioned above). After their success at the world's fair in Paris, in 1867 (see: *Národní škola. Praha 1867*, p. 187), Felkl's globes were awarded first prize at the Vienna fair of 1873, and in 1874 the 8" diameter globe in the German version was approved by the Ministry of Education as accessory for primary and secondary schools, and the 12" diameter one for public schools together with the telurian, the planetarium and the slated globe (see: *Verordnungsblatt f. d. Dienstbereich d. Ministeriums f. Cultus u. Unterricht. Wien 1874*, p. 43—44; No 15 672 of 18. 3. 1874). At that time Otto Delitsch was already the distinguished and almost exclusive author in Felkl's enterprise, whose name successively appeared on a whole series of Felkl's globes and on some of them even still sixty years after his death (he died in 1882); a globe of 6" diameter, dated 1872 still carries Delitsch's name. The larger of Delitsch's globes (12"), in the Czech rendering of J. Řehák, professor at a Czech high school, appeared as the first approved Czech accessory of the kind, in 1879, in Czech primary and secondary schools (see: *Verordnungsblatt . . . 1879*, p. 512; No 17 543 of 4. 12. 1879), was, however, also used without approval at Czech public schools (Conf. for inst. Programme of K. K. classical public school at Mladá Boleslav 1880—1881.). This gave rise to considerable sales — even today Felkl's globes are preserved at many schools — and they were then manufactured at a rate as trade required it, i. e. not only for direct sale, but also for stock (On their resulting antiquitation, see: J. Metelka, *O nedostatku českých učebných věcí zeměpisných a dějepisných. — On the deficiency of Czech geographical and historical school accessories. Posel z Budče 1886*, p. 286.). Their dating was therefore discontinued and even the name of their previous author disappeared, which today considerably complicates their accurate definition for purpose of bibliographic record. Such a record is at the present time being compiled within the programme of an action by the International Union for History of Science, by the Prague Department of Cartography of the Czechoslovak Academy of Sciences, to which I am indebted for permitting me to study the so far assembled material, which awaits publication. The sortiment of Felkl's production comprised seven standard sizes (No 1 to 7) in ten different executions (see: J. G. Wollweber, *Globuskunde zum Schulgebrauche und Selbststudium. Freiburg in Breisgau 1879*, p. 109; the smallest globe of 1,5" diameter was only made much later.) according to the quality of the equipment of the globes (with simple stand, with metal meridian, with horizon, with hour circle, with compass and similar), and when new mutations were added — in Slovenian, Croatian, Rumanian and Norwegian — the mighty export of Czech globes practically covered the whole world. The factory was then already an independent production unit, printing its own maps and machining the globe accessories. The founder did, however, not live to see the peak of his factory's growth — he died at an age of 70 years, on the 7th of October 1887 at Roztoky and was buried in the family tomb at the Levý Hradec graveyard.

After Jan Felkl's death, the firm was managed by his son and partner Kryštof Zikmund Felkl until he unexpectedly died in 1894. It was then taken over by Zikmund's brother Ferdinand Felkl (until 1925), but since the war the production virtually only vegetated. During the following years the firm belonged to Ferdinand's wife Kateřina Felkl (upto 1929), to her daughter Vilemína Markéta, wed Kraupner (upto 1938) and finally to Vilemína's son Vilém Otto Kraupner, who liquidated the firm in 1952. Part of the equipment of Felkl's workshop

is now deposited at the National Technical Museum in Prague, some items are amongst the exhibits of the Roztoky Museum, and the lithographical stones are to this day preserved at the former workshop store-room of the firm. It still bears witness to the greatness of this special and then famous manufactory of geographical school accessories, which should not fall into oblivion.

ČESKÝ VÝROBCE GLOBŮ JAN FELKL

Zakladatel světoznámé české tovární výroby globů Jan Felkl (1817—1887) přišel do Prahy jako voják a byl zprvu zaměstnán na pražské poště jako zřízenec expedice novin. Koncem čtyřicátých let 19. století se tu seznámil s pražským rytcem a kartografem Václavem Merklasem, který v letech 1848—49 začínal s vlastní hromadnou výrobou malých českých globů, a poskytl prý mu k tomu nejen radu, ale i finanční pomoc. Když se zanedlouho nato Merklas chystal k odchodu z Prahy, přenechal Felklovi, snad na úhradu svého dluhu, všechno zařízení na výrobu těchto globů, totiž mosazné rozevírací formy k odlévání dutých sádrových koulí a tiskové desky s rytinou mapového obrazu Země. Felkl zhotovoval nejdříve jen malé globy Merklasovy, ale záhy, po zápisu firmy do obchodního rejstříku (1854), začal i se složitější výrobou globů větších, nejprve s nomenklaturou německou a pak i s názvoslovím v jiných řečech. V krátkém čase dosáhl sortiment jeho výroby sedmi standardních velikostí globů zemských i hvězdných, odstupňovaných podle kvality vybavení globu do deseti skupin, a názvosloví se tisklo v sedmnácti různých jazycích (anglicky, bulharsky, česky, dánsky, holandsky, chorvatsky, italsky, maďarsky, německy, norský, polsky, rumunsky, rusky, slovinsky, španělsky a švédsky), takže vývoz českých výrobků šel téměř do celého světa. Nejznámějším autorem Felklových globů byl lípský univerzitní profesor Otto Delitsch, významným starším zčešťovatelem Josef Erben, který navíc pro vývoz upravoval i názvosloví ruských globů. Pro růst výroby bylo významné schválení Felklových globů zemských, indukčních, jakož i tzv. telurii, lunárií a planetárií jako vyučovací pomůcky, a to r. 1874 v německé a r. 1879 v české verzi. Dobře prosperující podnik přenechal Felkl už r. 1870 do Roztok nad Vltavou.

ЯН ФЕЛКЛ — ЧЕШСКИЙ МАСТЕР И ОСНОВАТЕЛЬ ПРОИЗВОДСТВА ГЛОБУСОВ

Основатель всемирноизвестного чешского фабричного производства глобусов Ян Фелкл (1817—1887 гг.) по приезде в Прагу начал работать на почте по рассылке газет. В конце 40-х годов 19 в. он познакомился с пражским гравером и картографом Вацлавом Меркласом, который в 1848—1849 гг. организовал массовое производство небольших чешских глобусов и которому помог Фелкл не только советом, но и материально. Когда немного позже Мерклас уезжал из Праги, он оставил Фелклу все оборудование для производства этих глобусов, которое состояло из латунной литейной раскрывающейся формы для производства дутых гипсовых шаров и граверных досок с гравюрой карты земли. Сначала Фелкл изготовлял только небольшие глобусы Меркласа, но после внесения фирмы в список торговых предприятий (1854 г.), он начал изготовлять более сложные глобусы сначала с немецкой номенклатурой а позже и на других языках. В течение короткого времени на фабрике производились звездные и земные глобусы семи стандартных размеров, причем по качеству производства глобусы подразделялись на десять групп; надписи делались на 17 языках (английском, болгарском, чешском, датском, голландском, хорватском, итальянском, венгерском, немецком, норвежском, польском, румынском, русском, словенском, испанском, и шведском). Таким образом экспорт чешских изделий осуществлялся почти во все страны мира.

Наиболее известным автором глобусов Фелкла был лейпцигский университетский профессор Отто Делитч, редактором чешских надписей был известный Иозеф Эрбен, который кроме того редактировал русские надписи. Для развития производства глобусов большое значение имело использование их в качестве школьного пособия (в 1874 г. в немецком варианте, в 1879 в чешском). В 1870 г. свое преуспевающее предприятие Фелкл перевел в Розтоки над Влтавой.